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<sup>i</sup> Balfanz, Robert, and Thomas C. West. Raising graduation rates: Progress toward increasing national and state graduation rates. Rep. Baltimore: Center for Social Organization of Schools, 2009. Everyone Graduates Center. 11 Jan. 2009.

<sup>ii</sup> A final FY 2009 figure is expected when FY 2009 closes.

<sup>iii</sup> During the most recent application window, 25 applications were filed, and eight charter schools were authorized to open in the 2010-2011 school year (seven in Memphis and one in Nashville). Ten denied schools have appealed to the State Board of Education. More applications are expected because of the raised cap and the turnaround strategy described in Section E(2).

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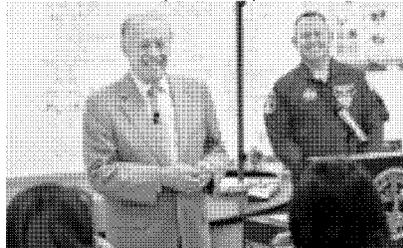
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## Bredesen, NASA Astronaut Unveil Statewide Public Education Partnership with Battelle

Released on Fri, Dec 11, 2009 - 10:41 am



Gov. Bredesen and Capt. Wilmore

### ***Network to Focus on Science, Technology, Engineering & Math***

**MT. JULIET, Tenn.** — Governor Phil Bredesen, joined by NASA Space Shuttle pilot and Mt. Juliet native Capt. Barry Wilmore, today announced a new public education partnership with the global research and development enterprise Battelle as part of Tennessee’s push in the federal Race to the Top competition for education innovation.

Under the partnership, Battelle, which co-manages Oak Ridge National Laboratory (ORNL) in a joint venture with the University of Tennessee, will work with the state Department of Education and local school systems to establish a statewide network of programs and schools designed to promote and expand the teaching and learning of science, technology, engineering, and math — or STEM — education.

The “Tennessee STEM Innovation Network” will be modeled in part on previous STEM efforts led by Battelle in other states, including its home state of Ohio. The new partnership comes on the heels of President Obama’s November launch of “Educate to Innovate,” a nationwide campaign to move American students from the middle to the top of the pack in science and math achievement over the next decade. Battelle is a “core partner” in the national campaign.

Bredesen, who majored in physics in college, said Tennessee already is well positioned thanks to a strong base of existing businesses, colleges and universities, programs, local schools and other organizations focused on 21<sup>st</sup>-Century innovation. With Battelle joining as a partner, he said, Tennessee can expand educational opportunities and better coordinate efforts for the benefit of teachers and kids across the state. Additionally, he said, Tennessee can create new STEM teaching and learning models that can be shared with the rest of the country.

“Battelle is a world-class partner with a track record of bringing innovative teaching and learning strategies into public schools,” Bredesen said. “We want to learn from their experience and make Tennessee the nation’s leader in STEM education.”

Joining Bredesen in making the Battelle announcement was Capt. Wilmore, a graduate of Mt. Juliet High School, Tennessee Tech University and the University of Tennessee, who embodies the importance of STEM teaching and learning to America’s future. The astronaut’s studies in aviation and electrical engineering laid the groundwork for a career that eventually led him to pilot NASA’s STS-129 Space Shuttle mission last month. Promoting STEM learning is a key priority in NASA’s public education efforts.

“Captain Wilmore represents the very best of Tennessee and the life opportunities that exist for kids who want to pursue science and math,” Bredesen said. “We appreciate NASA’s commitment to promoting STEM learning in America.”

“We applaud the state of Tennessee for its vision to enhance science and math education, and we look forward to working as a partner in this major public-private effort,” said Battelle’s Richard Rosen, Vice President, Education and Philanthropy. “Advancing STEM education is key to the future of our nation.”

Battelle has strong roots in STEM education. In August 2006, Battelle helped launch Ohio’s first STEM-based school, Metro Early College High School, on the campus of The Ohio State University. For the past two years, Battelle has managed the Ohio STEM Learning Network, a public-private partnership designed to foster and spread meaningful and sustainable innovations that change the way education looks and works. It has mobilized the support of 47 institutions of higher education, 81 public school districts, and more than 300 unique business and community partners. This fall, Battelle applied lessons learned from Metro High School to launch Delta High School in Richland, Wash.

As the world’s largest independent research and development organization, Battelle provides innovative solutions to the world’s most pressing needs in energy and the environment, national security, and health and the life sciences. Battelle conducts more than \$5.2 billion in global research and development annually through contract research, laboratory management and technology commercialization. Headquartered in Columbus, Ohio, Battelle is one of the nation’s leading charitable trusts focusing on societal and economic impact and actively supporting and promoting science and math education.

Detailed plans for Battelle’s involvement in the Tennessee STEM Innovation Network will be developed in the coming weeks. The ultimate scope of the network will hinge, in part, on whether Tennessee is successful in securing federal funds as part of the President’s Race to the Top competition. Regardless of federal dollars, Bredesen said it’s time for a new focus on STEM teaching and learning in Tennessee schools.

“In America and Tennessee, we have an obligation to improve our role in the global economy and create high-quality innovation jobs for the future,” Bredesen said. “Our new partnership with Battelle is a bold step toward making STEM a statewide and a national priority.”

###

For more information on the Web:

**Battelle:** [www.battelle.org](http://www.battelle.org)

**Educate to Innovate:** [www.whitehouse.gov/issues/education/educate-innovate](http://www.whitehouse.gov/issues/education/educate-innovate)

**NASA Education Program:** [www.nasa.gov/offices/education/about](http://www.nasa.gov/offices/education/about)

**Ohio STEM Learning Network:** [www.osln.org](http://www.osln.org)

## Tennessee Race to the Top – Appendix STEM-2

Initiative	Description	Total R2T Expenditure	# of Awards	Process for Award
<b>STEM Schools</b>	<b>STEM Platform Schools &amp; Academies</b> Up to 2 STEM platform schools to be developed with significant technical support from Battelle <b>UT Knoxville/ Knox County Public Schools</b>	\$2,000,000	1	Grant – designated in First to the Top (F2T)
	<b>Metro Nashville STEM Academies Program Expansion</b>	\$2,000,000	1	Grant – designated in F2T
	<b>TN Virtual Charter School offered through Electronic Learning Center</b> – online high school completion and college dual enrollment courses delivered virtually at no cost to students/families through ELC	\$2,000,000	1	Grant – designated in F2T
	<b>Up to 3 additional STEM School or Academy Models</b>	\$3,000,000		Competitive Grant
Initiative	Description	Total R2T Expenditure	# of Awards	Process for Award
<b>STEM Hub Development Support</b>	<b>Regional STEM Hubs</b> Develop regional hubs of support for STEM Schools, professional development and teaching practice; these may be in concert with existing STEM assets (such as K12 schools, universities, professional development centers, etc.) or developed independently of these begin building STEM education program assets where the regional STEM asset base is not in place; Hubs are also responsible for building partnerships regionally that maximize efforts of K12, higher education and business/industry to spread the STEM message and reach students/families	\$5,000,000	Up to 6	Competitive Grant
<b>Teacher Supply &amp; Demand Study</b>	<b>Annual Report</b> coupled with electronic education data warehouse			

**Tennessee STEM Innovation Network**

<b>Increasing Number and Effectiveness of New of Math &amp; Science Teachers</b>	<p><b>UTeach Programs in TN</b> Recruit and prepare new STEM teachers through UTeach expansion; add University of Memphis and University of TN-Chattanooga with R2T funds to the existing funding for University of TN-Knoxville and Middle TN State University. All were recommended for funding by UTeach @ University of Texas @ Austin</p> <p><b>Teach TN</b> No specific request for additional funding through R2T; part of the teacher preparation system that specifically connects to STEM</p>	\$4,104,000	2	Grant designated based upon prior UTeach evaluation process
<b>Increasing Effectiveness of Practicing Math &amp; Science Teachers</b>	<p><b>STEM Centers for Professional Development</b> East Tennessee State University /Center of Excellence in Math &amp; Science Tennessee Technological University/Millard Oakley STEM Center Middle Tennessee State University/Tennessee Mathematics, Science and Technology Education Center University of Memphis</p> <p>ORAU – STEM Teacher Training Academy</p>	\$6,000,000		Grant designated based on current roles and deliverables in coordination with Battelle
		\$1,491,000		Grant designated
<b>Initiative</b>	<b>Description</b>	<b>Total R2T Expenditure</b>	<b># of Awards</b>	<b>Process for Award</b>
	<b>Strengthening Instruction in Tennessee Elementary Schools: Focus on Mathematics (SITES-M) – elementary &amp; middle</b>	\$8,000,000	1 Umbrella Award	Competitive Program Awards
<b>STEM Leadership Development Program with Metro School/OSLN</b>	<b>Teacher &amp; principal learning exchanges with specifics to be determined</b>	\$100,000		In concert with TN STEM Innovation Network
<b>STEM Infrastructure &amp; Sustainability Support</b>	<b>Internal STEM Liaison Team coordinators at Department of Education and THEC (portion of role) to interact with the STEM</b>	Funded through existing state		Designated and/or competition in concert with TN STEM Innovation Network

### Tennessee STEM Innovation Network

	<p>Innovation Council and STEM Innovation Network management. Responsible for connecting relevant agency personnel with the emerging network infrastructure and management.</p> <p><b>Three designated development coordinators</b> (contracted and/or buying time from higher ed existing faculty) to develop sustainability plans for STEM efforts across the TN STEM Innovation Network for three years</p> <p><b>STEMResources.com website continued development &amp; support</b></p> <p><b>Annual STEM Education convening, curriculum development workshops and conferences</b> (over 3 years)</p> <p><b>STEM Education Research Activities in coordination with the TN Consortium on Research, Evaluation &amp; Development</b></p>	<p>allocations</p> <p>\$450,000</p> <p>\$150,000</p> <p>\$750,000</p> <p>\$100,000</p>	<p>1 to 3</p> <p>1</p> <p>1-3</p> <p>1-4</p>	<p>RFP</p> <p>RFP</p> <p>RFP</p> <p>TN - CRED</p>
Initiative	Description	Total R2T Expenditure	# of Awards	Process for Award
<b>Focused Rural STEM Initiative</b>	<p><b>TN Virtual Charter School offered through Electronic Learning Center</b>– online high school completion and college dual enrollment courses delivered virtually at no cost to students/families through ELC</p> <p><b>At least one STEM Hub designated to rural region</b> (cited in this grid previously) <b>tied to the TN Virtual Charter School</b></p> <p><b>Specific support for development and use of Learning Maps in the rural context</b></p>	<p>Cost indicated in first section above</p> <p>Cost indicated above</p> <p>\$370,000</p>	<p>1</p> <p>At least 1</p> <p>1</p>	<p>Designated to promising rural consortia</p> <p>Competitive Grant</p> <p>Designated to Hubs and selected schools</p>
	<b>TOTAL INVESTMENTS:</b>	<b>\$35,575,000</b>		

**MEMORANDUM OF UNDERSTANDING  
BY AND BETWEEN**

**BATTELLE MEMORIAL INSTITUTE**

**AND**

**THE TENNESSEE STEM INNOVATION NETWORK**

This Memorandum of Understanding (“MOU”) is entered into by and between the Tennessee STEM Learning Network and Battelle Memorial Institute, 505 King Avenue, Columbus, Ohio 43201 (“Battelle”). The State of Tennessee and Battelle Memorial Institute (each a “Party” and collectively the “Parties”), desire to cooperate in an effort to advance strategic and operational coordination of public and private STEM education initiatives in the State of Tennessee. This Memorandum of Understanding (MOU) outlines respective commitments and obligations of the Parties.

*WHEREAS*, the Tennessee STEM Innovation Council is responsible for advancing science, technology, engineering, and mathematics (STEM) in education in the State of Tennessee by working with a nonprofit enterprise to support the strategic and operational coordination of public and private STEM education initiatives; and

*WHEREAS*, Battelle is a non-profit charitable trust headquartered in the State of Ohio conducting independent research and development, with core purposes of: (1) managing scientific research and technology development, (2) translating these activities into applications and products for the benefit of the society and the economy, and (3) being a benefactor of the betterment of mankind particularly in the areas of education of men and women; and

*WHEREAS*, the State of Tennessee is authorized to enter into an agreement to work with a non-profit to support STEM initiatives and to establish the Tennessee STEM Innovation Council; and

*WHEREAS*, the Parties wish to leverage their collaborations as a means to advancing high-quality STEM education in combination with social sciences, language, and arts as a means for building critical thinking skills, creativity and innovation for every Tennessee child in preparation for 21<sup>st</sup> century living; and

*WHEREAS*, the Parties have reached certain understandings and agreements about their respective commitments that are documented in this Memorandum of Understanding;

*NOW THEREFORE*, in consideration of the mutual covenants and promises set forth herein and for other good and valuable consideration, receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

**ARTICLE I: NATURE OF THE MOU**

The State of Tennessee enters into this MOU in reliance upon Battelle’s representations that Battelle has the necessary expertise and experience to perform Battelle’s obligations hereunder, and Battelle warrants that Battelle does possess the necessary expertise and experience. Battelle enters into this MOU in reliance upon the State of Tennessee’s representations that it intends to coordinate its processes and scheduling of STEM initiatives, including the establishment of the Tennessee STEM Innovation Council.

Battelle shall act as an independent contractor, to fulfill the terms of this MOU. It is specifically understood that the nature of the services to be rendered under this MOU are of an advisory nature. After consideration of services undertaken by Battelle, the State of Tennessee shall take whatever independent actions it deems appropriate with regard to the Tennessee STEM Innovation Council’s STEM initiatives.

Both Parties reserves the right to terminate this MOU, in accordance with Article IV, should either Party at any time be dissatisfied with the other’s performance of duties under this MOU.

The Tennessee STEM Innovation Council, through a representative delegated by the Tennessee STEM Innovation Council Chair, may, from time to time, communicate specific requests to Battelle concerning the performance of the work described in this MOU. Upon such notice and within ten [10] days or a reasonable period of time after receipt of the request, Battelle shall respond to these requests with a plan or alternative recommendations. It is expressly understood by the Parties that these instructions and requests are for the sole purpose of performing the specific tasks requested to ensure satisfactory completion of the work described in this MOU.

The management of the work, including the exclusive right to control or direct the manner or means by which the work is performed, remains with Battelle. The Tennessee STEM Innovation Council retains the right to ensure that Battelle’s work is in conformity with the terms and conditions of this MOU. The full execution of all activities listed in this MOU will be enhanced upon the awarding of a federal Race to the Top grant to the state of Tennessee. However, the collaboration between the State of Tennessee and Battelle in establishing the enabling conditions for the successful launch of the Tennessee STEM Innovation Network will continue leveraging in-kind resources of both parties, regardless of a Race to the Top funding.

**ARTICLE II: SCOPE OF SERVICES**

*STATE OF TENNESSEE / BATTELLE - MEMORANDUM OF UNDERSTANDING  
FOR TENNESSEE STEM INNOVATION NETWORK*

**1.6.10**

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A. Battelle agrees to the following responsibilities:

1. Work collaboratively with the Tennessee STEM Innovation Council, to establish the TN STEM Innovation Network and a Tennessee STEM Innovation Strategic Plan.
2. Battelle will work collaboratively with ORAU and the Tennessee STEM Innovation Council to establish a core team to facilitate the implementation of a STEM Innovation Network infrastructure in the state of Tennessee. This activity will include establishing protocol and funding resources for staffing needs.
3. Upon request by the Tennessee STEM Innovation Council, manage and retain records transmitted to Battelle by the Tennessee STEM Innovation Council and other public records laws of the State of Tennessee;
4. Grant the Tennessee STEM Innovation Council access to all data and information collected in furtherance of duties and responsibilities performed under this MOU.
5. Work collaboratively with the Tennessee STEM Learning Network to develop a joint message, or messages, that is acceptable and necessary to describe and communicate the work of Battelle and the Tennessee STEM Learning Network to various stakeholders and the public. The message is intended to be used by both parties either together or separately when discussing the work to the above audiences. Messaging should be reviewed periodically for continuity.
6. Work collaboratively and commit resources through the Tennessee STEM Innovation Council to develop and implement up to two STEM demonstration schools that will function as research and development labs for the benefit of all students of Tennessee.
7. Work collaboratively and commit resources through the Tennessee STEM Innovation Council to establish a support system (Hubs) for at least two platform schools and to four metropolitan areas focused on innovative practices, scalability and sustainability, one of which contains a professional
8. Work collaboratively and commit resources with the Tennessee STEM Hub(s) and schools to connect them with peer organizations focused on similar goals and objectives.
9. Work collaboratively with those Tennessee STEM businesses, institutions and organizations such as the University of Tennessee, Vanderbilt, Oak Ridge Laboratories and ORAU and others to support

*STATE OF TENNESSEE / BATTELLE - MEMORANDUM OF UNDERSTANDING  
FOR TENNESSEE STEM INNOVATION NETWORK*

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STEM education initiatives, particularly in the development and support of great teachers and leaders.

10. Invest resources, both in-kind and financial, into the development and implementation of a “rural STEM education” strategy(s) to maximize STEM educational initiatives impact. This may include interacting with additional national organizations working in concert with Tennessee’s Race to the Top implementation effort.
11. Collaborate with the Tennessee STEM Innovation Council and Tennessee STEM Innovation Network to ensure Battelle’s websites related to STEM education provide information and links to the Tennessee STEM Innovation Council and Tennessee STEM Learning Network’s related websites, as well as other relevant contributors throughout the State of Tennessee. Periodic reviews should occur to ensure continuity.
12. Conduct the following evaluations at agreed upon intervals:
  - a. The progress toward milestones of STEM initiatives approved by the Tennessee STEM Innovation Council.
  - b. The progress toward building capacity and sustainability beyond the Race to the Top grant period.
  - c. The barriers that may impact the work of each STEM initiative and penetration of STEM learning and innovation throughout the Tennessee education system.
13. Share non-proprietary research and data on best practices that may be in the possession of Battelle through its related STEM education work that could be valuable to the Tennessee STEM Innovation Council for reviewing future activities or proposals, and/or to inform the Tennessee STEM Innovation Council in its ongoing role to shape STEM education strategy for the State of Tennessee.
14. Provide summary reports of each of Battelle’s evaluations of STEM initiatives progress and other topics as determined of interest by Battelle and the Tennessee STEM Innovation Council on an annual basis.
15. Provide the Tennessee STEM Innovation Council with advice and recommendations that may enhance the quality or efficiency of current or future STEM-related funding processes under the responsibility of the Tennessee STEM Innovation Council.

16. Conduct orientation activities for STEM initiatives selected by the Tennessee STEM Innovation Council, including, but not limited to, hosting an informational meeting for purposes such as sharing plans, information relating to organization and presentation of work, and introduction to other STEM initiatives selected by the Tennessee STEM Innovation Council.
17. Connect all STEM initiatives selected by the Tennessee STEM Innovation Council and/or the Tennessee STEM Learning Network to the Ohio STEM Learning Network (OSLN) – a privately funded STEM program operated by Battelle. The Tennessee STEM Innovation Council recognizes that all decisions regarding formal interaction with the OSLN and Tennessee STEM Innovation Network is at the sole discretion of Battelle and subject to the policies and operating practices of the OSLN.
18. Provide a Battelle representative to serve as a member of the Race to the Top Research, Evaluation & Development Team that will identify the research needs of the education reforms being undertaken in Tennessee.

B. Tennessee STEM Innovation Council agrees to the following responsibilities:

1. Formalize a leadership team with STEM educational initiatives as a focus with resources (financial and in-kind) to drive STEM reforms.
2. Name Battelle as the private/public partner for the purpose of designating STEM education leadership to an entity that functions to connect and accelerates STEM education reforms as determined through partnership with the public entity with common goals and objectives.
3. Work collaboratively with Battelle to develop a joint message, or messages, that are acceptable and necessary to describe and communicate the work of Battelle and the Tennessee STEM Innovation Council to various stakeholders and the public. The message is intended to be used by both parties either together or separately when discussing the work to the above audiences. Messaging should be reviewed periodically for continuity.
4. The Tennessee STEM Innovation Council shall not use, either directly or indirectly, the name of Battelle or the name of any members of the staffs thereof, or any unpublished information or data relating to work performed under this MOU in any publicity or advertising in manner that is inconsistent with the joint message, or messages, unless a copy

*STATE OF TENNESSEE / BATTELLE - MEMORANDUM OF UNDERSTANDING  
FOR TENNESSEE STEM INNOVATION NETWORK*

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is submitted and written approval of the Battelle is obtained in advance.

5. Collaborate with Battelle to ensure the Tennessee STEM Innovation Council's and the Tennessee STEM Innovation Network's related websites provide information and link to Battelle's related websites. Periodic reviews should occur to ensure continuity.
6. The director of the Tennessee STEM Innovation Network, or designee, to serve as an ex officio representative to the Ohio STEM Learning Network (OSLN).
7. Require those selected to lead STEM initiatives as determined by the Tennessee STEM Innovation Council to coordinate with Battelle in its role as the public/private collaborator. The Tennessee STEM Innovation Council has the right to periodically review this requirement for the purposes of discontinuing the requirement if the Tennessee STEM Innovation Council determines that requiring connectivity to Tennessee STEM Innovation Network is no longer desired or in the grantees best interests. The Tennessee STEM Innovation Council will notify Battelle of its finding and concerns of its review before making a determination to discontinue the requirement.
8. Work collaboratively and commit resources with Battelle to develop and implement up to two STEM demonstration schools that will function as research and development labs for the benefit of all students of Tennessee.
9. Work collaboratively and commit resources through the Tennessee STEM Learning Network to establish support system (Hub) for the two platform schools, at least one professional development laboratory, and up to four metropolitan areas focused on innovative practices, scalability and sustainability.
10. Work collaboratively and commit resources with the Tennessee STEM Hub(s), schools and professional development laboratory to connect them with peer organizations focused on similar goals and objectives.
11. Invest resources, both in-kind and financial, into the development and implementation of a "innovative schools leadership" development and support strategy that links Tennessee with state-of-the-art leadership education in Ohio and around the country.

12. Invest resources, both in-kind and financial, into the development and implementation of a “rural STEM education’ strategy(s) to maximize STEM educational initiatives impact.
  13. Include a Battelle representative as a member of the Race to the Top Research, Evaluation & Development Team that will identify the research needs of the education reforms being undertaken in Tennessee.
  14. Invest in further expansion and development of the Tennessee Electronic Learning Center such that appropriate components of the Tennessee STEM Innovation Network may leverage its capabilities.
- C. The Tennessee STEM Innovation Council recognizes that Battelle – in its role as manager of the Tennessee STEM Innovation Network - may elect to provide technical assistance or other support to entities that are responding to funding opportunities under the responsibility of the Tennessee STEM Innovation Council in order to enhance the quality of these proposals and/or their integration and leverage with other related activities across Tennessee. Battelle requires no prior approval or disclosure to the Tennessee STEM Innovation Council, as long as the assistance is consistent with this MOU.
- D. This MOU does not impose any limitations or restrictions on Battelle supporting, including privately funding, non-grantees or contributing private funds to grantees selected by the Tennessee STEM Innovation Council provided:
1. The support to non-grantees does not restrict or diminish obligations, responsibilities, and services Battelle is to provide under this MOU to grantees selected by the Tennessee STEM Innovation Council.
  2. The private funding to grantees does not impose conditions on Battelle’s obligations, responsibilities, and services Battelle is to provide under this MOU to the grantees selected by the Tennessee STEM Innovation Council.

**ARTICLE III: TERM OF THE MOU**

The term of this MOU shall commence on the date of signing and end on the date both parties determine unless the MOU is extended, discontinued, or terminated pursuant to the terms contained herein.

At the end of the first year of the performance, the Parties will conduct a review of the services provided and based on the outcome of that review the Parties may discontinue the MOU or extend the MOU beyond the second year of performance.

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**ARTICLE IV: TERMINATION OF MOU**

The Parties may terminate the MOU for any reason including, but not limited to:

1. Default by either Party. Default is defined as the failure by a Party to specifically perform in accordance with the specifications, terms, and conditions of the MOU.
2. The lack of need for the services as specified under the MOU, including, but not limited to, program changes, changes in laws, rules or regulations, or lack of adequate capacity to carry out the work by either Party. If a termination is desired, written notice thirty (30) days prior to the date of termination will be provided by the Party desiring termination.
3. If the Tennessee STEM Innovation Council deems it to be in the best interest of the State by serving Battelle with written notice thirty (30) days prior to the date of termination.

In the event the MOU is terminated prior to its completion, Battelle shall deliver to the Tennessee STEM Innovation Council all work products and documents which have been prepared by Battelle or held on behalf of the Tennessee STEM Innovation Council in the course of providing services under the MOU. All such materials shall become, and remain, the property of the Tennessee STEM Innovation Council to be used in such manner and for such manner as the Tennessee STEM Innovation Council may choose.

The rights and remedies of the Tennessee STEM Innovation Council set forth in this article shall be in addition to and not exclusive of any rights or remedies arising under the MOU or by operation of law.

**ARTICLE V: COMPENSATION**

There shall be no financial remuneration directly to Battelle for any work performed under this MOU, however, Battelle shall receive valuable access to Tennessee STEM initiatives in furtherance of its mission.

**ARTICLE VI: EQUAL OPPORTUNITY & NONDISCRIMINATION POLICY**

The State of Tennessee and the Tennessee STEM Innovation Council are strongly committed to equal opportunity in solicitation of services. As a party to this MOU, Battelle must comply with Tennessee's Equal Opportunity Policy and Program.

Battelle shall not discriminate on the basis of race, gender, religion, national origin, ethnicity, sexual orientation, age, or disability in the solicitation, selection, hiring or treatment of subcontractors, vendors, or suppliers. Battelle shall provide equal opportunity for subcontractors to participate in subcontracting opportunities. Battelle

understands and agrees that violation of this clause shall be considered a material breach of contract and may result in contract termination, debarment, or other sanctions.

**ARTICLE VII: COMPLIANCE WITH LAW & NON-ASSISTANCE TO A TERRORIST ORGANIZATION**

Battelle agrees to comply with all applicable federal, state and local laws in the conduct of the work hereunder. Battelle accepts full responsibility for payment of all unemployment compensation insurance premiums, workers' compensation premiums, all income tax deductions, social security deductions, and any and all taxes or payroll deductions required for all employees engaged by Battelle in the performance of the work authorized by this MOU. Battelle must furnish evidence of workers' compensation insurance coverage.

Battelle agrees that no agency, employment, joint venture or partnership has been or will be created between the parties hereto pursuant to the terms and conditions of this MOU. Battelle assumes all responsibility for any federal, state, municipal or other tax liabilities, and insurance premiums that may accrue as a result of compensation received for services or deliverables rendered hereunder.

Battelle represents and warrants to the Tennessee STEM Innovation Council that it has not provided any material assistance to any organization identified by and included on the United States Department of State Terrorist Exclusion List and that it has truthfully answered "no" to every question on the "Declaration Regarding Material Assistance/Non-assistance to a Terrorist Organization." Battelle further represents and warrants that it has provided or will provide such to Tennessee STEM Innovation Council prior to execution of any agreement.

**ARTICLE VIII: DRUG AND ALCOHOL FREE WORKPLACE**

Battelle shall comply with all applicable federal, state, and local laws regarding smoke free and drug free work places and shall make a good faith effort to ensure that any of its employees or permitted subcontractors engaged in the work being performed hereunder do not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.

**ARTICLE IX: CONFLICT OF INTEREST**

Battelle agrees to comply with all applicable ethics and conflict of interest laws of the State of Tennessee, and will take no action inconsistent with those laws and that order. Battelle understands that failure to comply with those laws and that order is, in itself, grounds for termination of this MOU and may result in the loss of other contracts with the State of Tennessee.

**ARTICLE X: AMENDMENTS OR MODIFICATION**

No amendment or modification of this MOU shall be effective against either party unless such amendment or modification is set forth in writing and signed by both parties.

**ARTICLE XI: ENTIRE AGREEMENT**

This MOU constitutes the entire agreement of the parties hereto and supersedes any prior understandings or written or oral communications between the parties respecting the subject matter hereof.

**ARTICLE XII: WAIVER**

The waiver or failures of either party to exercise in any respect any right provided for herein shall not be deemed a waiver of any further right hereunder.

**ARTICLE XIII: SEVERABILITY**

If any provision of this agreement is found invalid, illegal, or unenforceable in any respect by a court of competent jurisdiction, said provision shall be severed. The validity, legality, and enforceability of all other provisions of this MOU shall not in any way be affected or impaired unless such severance would cause this agreement to fail of its essential purpose.

**ARTICLE XIV: NOTICE**

Any notice required hereunder shall be made in writing and shall be accomplished by personal delivery, facsimile, or by United States certified mail, return receipt requested, postage prepaid, addressed to the party at the address set forth below or such other address as said party shall hereafter designate in writing to the other party.

Rich Rosen  
Battelle Memorial Institute  
505 King Avenue  
Columbus, Tennessee 43201-2693  
Phone: (614) 424-6424  
Facsimile: (614) 424-5263

Dr. Timothy K. Webb  
Commissioner of Education  
State of Tennessee  
710 James Robertson Parkway  
Andrew Johnson Tower, 6<sup>th</sup> Floor  
Nashville, TN 37243-0382

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**ARTICLE XV: GOVERNING LAW**

This MOU shall be construed under and in accordance with the laws of the State of Tennessee.

**ARTICLE XVI: HEADINGS**

The headings herein are for reference and convenience only. They are not intended and shall not be construed to be a substantive part of this MOU or in any other way to affect the validity, construction, interpretation, or effect of any of the provisions of this MOU.

*IN WITNESS WHEREOF*, the parties have executed this MOU on the day and year set aside by their respective signatures.

**BATTELLE MEMORIAL INSTITUTE**

By: \_\_\_\_\_  
Title Date

**DEPARTMENT OF EDUCATION , THE STATE OF TENNESSEE**

By: \_\_\_\_\_  
Title Date

## WORKING DRAFT

## Creating a Tennessee STEM Innovation Network

A Planning Document Prepared by  
Oak Ridge Associated Universities

in coordination with Battelle and the State of Tennessee

*In America and Tennessee, we have an obligation to improve our role in the global economy and create high-quality innovation jobs for the future.... Our new partnership with Battelle is a bold step toward making STEM a statewide and a national priority. (Governor Bredesen, December 11, 2009)*

*The United States has the most innovative, technologically capable economy in the world – yet, our science, technology, engineering and mathematics (STEM) education system is failing to ensure that all American students receive the skills and knowledge required for success in the 21<sup>st</sup> century workforce (The National Science Board, October 2007).*

In response to growing concern over the quality of STEM education and as an integral part of its “Race to the Top” initiative, the State of Tennessee has entered into a formal partnership with Battelle, the world’s largest independent manager of research and development. The intent is to establish a Tennessee STEM Innovation Network modeled in part on previous STEM efforts led by Battelle in other states, most notably the Ohio STEM Learning Network (OSLN). The Tennessee-Battelle partnership creates a strong formal relationship to support the goal of the Tennessee Diploma Project: to prepare every student in the state for success in college and career, with particular emphasis on higher level expectations in math and science. The Tennessee STEM Innovation Network is also a response to the national “Educate to Innovate” campaign, which is designed to improve the performance of U.S. students. Battelle is an important partner in this national campaign, and Tennessee is well positioned to lead as a result of ongoing efforts focused on 21<sup>st</sup> century innovation. Tennessee will expand educational opportunities across the state and be a national model for improving STEM education through proven approaches.

Building on existing, highly successful STEM education programs and past collaboration with Battelle, Oak Ridge Associated Universities (ORAU) is prepared to support Tennessee’s “Race to the Top” by working with the state and Battelle to help to create a Tennessee STEM Innovation Network that will:

- Create and coordinate regional “hubs” across the State of Tennessee to collaborate and share knowledge about the most effective practices in STEM education.
- Support a program element that focuses on STEM education in rural and Appalachian areas of Tennessee in order to leverage activities with rural counties of southeast Ohio.
- Engage stakeholders in arrangements that enable selected Tennessee high schools to collaborate with selected Ohio high schools to serve collectively as a laboratory for building leadership and training programs for teachers and administrators.
- Establish a statewide teacher training academy that takes the knowledge gained through the Network hubs to create a cadre of lead teachers who are prepared to introduce the state’s STEM teachers to innovative practices, communications technologies and pedagogical knowledge accumulated through the operation of the Tennessee STEM Innovation Network.

Developing a Tennessee STEM Innovation Network will involve creating a system that connects regional hubs – each comprised of school districts and their committed public and private partners. Coordination within and among the hubs will bring value to participating schools and committed stakeholders. Emphasis will be on building strong interpersonal relationships – across the K-12 to higher education continuum, and among committed leaders in education, industry and government. Local communities and school districts will leverage their strengths while maintaining their distinctiveness. The result will be that all will benefit from the collective knowledge that is captured and managed across the network. Sharing knowledge, tools, practices, innovations and human talent through a network of STEM education hubs is a powerful and tested model for initiating change and generating measurable improvements in student performance.

#### OBJECTIVES:

A primary strategic goal of the Tennessee STEM Innovation Network is to support a significant expansion of STEM educational opportunities. It is the intent to accomplish this through a statewide network of STEM education “hubs” and their associated school districts. The result will be a collaborative strategy that identifies and brings together science and technology leaders from business and education. Together they will develop local approaches to motivating students and helping them succeed. ORAU is in an excellent position to assist in accomplishing the following objectives that are fundamental to the network’s operation and to the development of a strong educational system for Tennessee students:

- Significantly increase the number of Tennessee students who graduate from high school successfully completing the expectations of the Tennessee Diploma Project and go on to complete college degrees in STEM fields.
- Increase the number of students who make the successful transition from school to careers in STEM fields.
- Tap the underutilized talent of women, minority and economically disadvantaged students by motivating them to participate in STEM fields at rates that match the rate for white males.
- Reduce achievement gaps and enhance overall student performance in STEM disciplines, particularly in higher level science and mathematics courses.
- Create a self-sustaining STEM education network that engages Tennessee’s public and private resources in improving the STEM curriculum, instruction, assessment, teacher content knowledge, classroom delivery, leadership and community involvement.
- Capture and manage knowledge across the Tennessee network to help identify, communicate, connect, develop and spread innovation through professional contacts and personal relationships.
- Spread knowledge of innovations in STEM education so that the state improves by sharing and working jointly toward common ends.

These objectives are measurable and achievable. By establishing and monitoring appropriate metrics, we will know how well we are doing and how quickly Tennessee is getting where it wants to be. Aggressively pursuing specific objectives through effective, statewide collaboration will help meet the state’s growing science and technology workforce needs and ensure that Tennessee’s students are prepared to compete in the global economy.

## APPROACH:

The strength and effectiveness of a network depends on the active engagement of its partners; the clarity of its communications; the willingness to experiment; the mechanisms to share knowledge; the management of the network's information; the dissemination of innovative practices; and an unwavering focus on agreed upon goals, objectives and approaches. As a university consortium with a more than sixty year record of building partnerships, ORAU is a Tennessee resource that is well positioned to assist in the development and coordination of the Tennessee STEM Innovation Network. ORAU manages \$140 million per year in STEM education programs through arrangements with Oak Ridge National Laboratory and a dozen federal government agencies. ORAU's existing STEM education programs reach students from more than 900 colleges and universities annually as well as K-12 students and educators in school districts across Tennessee and the nation. Many of ORAU's programs are strengthened by partnerships with the private sector – Battelle, Siemens, Volkswagen, Honda Motors, Shell Oil, Lockheed Martin, Mars and General Atomics, to name a few.

Building and managing partnerships designed to strengthen science research and education is a primary goal of ORAU. Leveraging the resources of its more than 100 member colleges and universities, ORAU is in a position to create partnerships that achieve results that no single institution or organization could achieve alone. ORAU member institutions have strong programs in science, mathematics, engineering and technology fields and together confer 37 percent of all graduate degrees in STEM fields. Collectively, ORAU member institutions perform 40 percent of all university research in science and technology disciplines. They have a deep commitment to STEM education and understand the importance of strengthening education in the full range of K-20 programs. They offer an excellent mechanism for disseminating nationally the results of the Tennessee STEM Innovation Network. The strength of these institutions (their science and engineering departments, their colleges of education, and their state and regional STEM education initiatives) will be leveraged in support of Tennessee's "Race to the Top." ORAU and its long-standing partnerships represent assets to the State of Tennessee and will make important contributions to the Tennessee STEM Innovation Network.

Breakthroughs in computer and information technology combined with improved connectivity across the state open new avenues for networking and improving STEM instruction. A special task force of The National Science Foundation released a report, *Fostering learning in the Networked World* (June 2008), in which it is asserted that "cyber-learning" is a life-long skill; that digital presentation is more compelling than textbooks; and that today's students already understand and use the power of digital information and communication. As these resources increasingly find their places in our classrooms, they will also facilitate the capture, management, and dissemination of STEM education knowledge among educators across the state, from Memphis to Upper East Tennessee.

The State of Tennessee, individual school districts, businesses and communities have made tremendous investments in cyber-infrastructure. Oak Ridge Associated Universities has assumed a leadership role in providing educators with exposure to and training in cyber-learning potential. ORAU's Center for Science Education includes classroom and seminar facilities equipped with computer and information technologies that are penetrating the classroom. Through a wide range of workshops, seminars, and institutes, ORAU is assisting teachers, school administrators, school boards, and community leaders in making decisions regarding the introduction and use of educational innovations in their STEM classrooms.

ORAU's facilities are also designed to assist in networking by providing capabilities for effective communication, teleconferencing and distance delivery of workshops and classes. The Tennessee STEM Innovation Network will expand, formalize and add structure to ORAU's network of educators that are committed to investing their time to develop the skills to be effective 21<sup>st</sup> Century STEM teachers.

ORAU is prepared to take the lead in planning and managing the following tasks:

- Provide a virtual “home” for Tennessee STEM Innovation Network staff members who will coordinate the activities of the public/private hubs across the state. The network is statewide, the hubs are regional, and ORAU can provide space and the communication links that hold all the components together.
- Guide the development of a strategic plan that outlines goals, objectives and metrics for measuring accomplishments toward a common vision.
- Create and maintain strong communication links to facilitate the capture and management of knowledge critical to the dissemination of STEM education innovations.
- Serve as a STEM teacher professional development center that will lead statewide efforts to introduce educators to new approaches and practices, particularly those that utilize the public and private science and technology resources of their regions and the state.
- Assist the state in the development of the STEM education hubs that are central to the operation of the Tennessee STEM Innovation Network. Key partners in the education, business, and government sectors will be identified and brought together for a common purpose.
- Monitor and report on the activities of regional hubs and the entire state network so that funds are used effectively to support proven networking processes.
- Establish explicit criteria for evaluating progress and documenting accomplishments of the Tennessee STEM Innovation Network, disseminate results, and assist in the adoption of best practice.
- Facilitate the flow of information within and beyond the network so that all STEM educators benefit from the knowledge that is gained.

ORAU has the background and experience to support the State of Tennessee, Battelle, and other “Race to the Top” partners to achieve a set of aggressive objectives designed to dramatically improve the educational performance of Tennessee's schools and better prepare students for the 21<sup>st</sup> Century.

#### EXPECTED OUTCOMES:

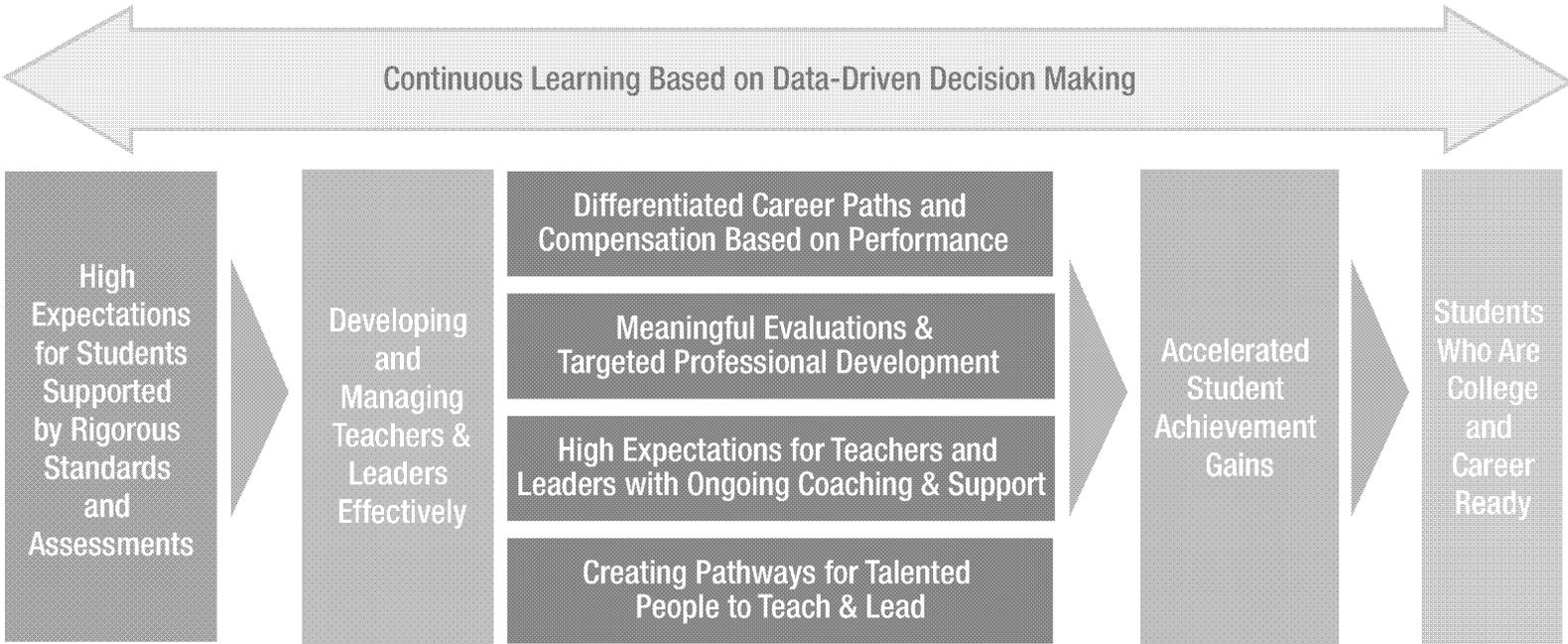
The approach outlined above is driven by clear objectives and is managed to enable transformational change in the STEM education system. Students will benefit from the challenging, collaborative and motivational learning environment created by the Tennessee STEM Innovation Network. An engaging, rigorous and inquiry-based curriculum that is aligned with state requirements and national standards for STEM education is essential. This can be achieved best through a statewide effort that relies on a broad network of connected learners and educators. The success of our 21<sup>st</sup> Century education will be measured in part by our ability to provide STEM literacy at all education levels. Matching the growth of its science and technology sector, Tennessee will produce students who are not only well informed but who are also innovative, inquisitive and collaborative communicators – i.e., science and technology leaders.

Teachers have a tremendous impact on the aspirations and accomplishments of students. They spend all day, every day exploring ways to best reach their students. To do so most effectively, they need exposure to continuous professional development so that they know what communication and information tools are available and how they can be used to access the resources that are so readily available in today's information world. A well-defined and cohesive network of teachers is a powerful resource. A well established and efficient network will serve to capture and manage knowledge regarding STEM education. It will link talented educators with regional scientific resources and stakeholders in educational outcomes. The combined creativity of effectively networked educators will transfer and speed the penetration of innovative professional development activities, effective instructional materials, proven pedagogical approaches, and new ways to access scientific resources for educational purposes.



# Tennessee Diploma Project: First to the Top

All of these elements work in concert to create a dynamic education system that increases student achievement, supports great teaching, and uses data to inform stakeholders and guide policymakers.



# Tennessee Race to the Top – Appendix A-1-2

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## Tennessee Participating Local Education Agency Memorandum of Understanding

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This Memorandum of Understanding (“MOU”) is entered into by and between the State of Tennessee (“State”) and \_\_\_\_\_ (“Participating LEA”). The purpose of this agreement is to establish a framework of collaboration, as well as articulate specific roles and responsibilities in support of the State in its implementation of an approved Race to the Top grant project.

### **I. SCOPE OF WORK**

Exhibit I, the Preliminary Scope of Work, indicates which portions of the State’s proposed reform plans (“State Plan”) the Participating LEA is agreeing to implement. (Note that, in order to participate, the LEA must agree to implement all of the State Plan.)

### **II. PROJECT ADMINISTRATION**

#### **A. PARTICIPATING LEA RESPONSIBILITIES**

In assisting the State in implementing the tasks and activities described in the State’s Race to the Top application, the Participating LEA subgrantee will:

- 1) Implement the LEA plan as identified in Exhibits I and II of this agreement;
- 2) Actively participate in all relevant convenings, communities of practice, or other practice-sharing events that are organized or sponsored by the State or by the U.S. Department of Education (“ED”);
- 3) Post to any website specified by the State or ED, in a timely manner, all non-proprietary products and lessons learned developed using funds associated with the Race to the Top grant;
- 4) Participate, as requested, in any evaluations of this grant conducted by the State or ED;
- 5) Be responsive to State or ED requests for information including on the status of the project, project implementation, outcomes, and any problems anticipated or encountered;
- 6) Participate in meetings and telephone conferences with the State to discuss (a) progress of the project, (b) potential dissemination of resulting non-proprietary products and lessons learned, (c) plans for subsequent years of the Race to the Top grant period, and (d) other matters related to the Race to the Top grant and associated plans.

#### **B. STATE RESPONSIBILITIES**

In assisting Participating LEAs in implementing their tasks and activities described in the State’s Race to the Top application, the State grantee will:

- 1) Work collaboratively with, and support the Participating LEA in carrying out the LEA Plan as identified in Exhibits I and II of this agreement;
- 2) Timely distribute the LEA’s portion of Race to the Top grant funds during the course of the project period and in accordance with the LEA Plan identified in Exhibit II;
- 3) Provide feedback on the LEA’s status updates, annual reports, any interim reports, and project plans and products; and
- 4) Identify sources of technical assistance for the project.

#### **C. JOINT RESPONSIBILITIES**

- 1) The State and the Participating LEA will each appoint a key contact person for the Race to the Top grant.
- 2) These key contacts from the State and the Participating LEA will maintain frequent communication to facilitate cooperation under this MOU.
- 3) State and Participating LEA grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the whole grant period.

4) State and Participating LEA grant personnel will negotiate in good faith to continue to achieve the overall goals of the State's Race to the Top grant, even when the State Plan requires modifications that affect the Participating LEA, or when the LEA Plan requires modifications.

**D. STATE RECOURSE FOR LEA NON-PERFORMANCE**

If the State determines that the LEA is not meeting its goals, timelines, budget, or annual targets or is not fulfilling other applicable requirements, the State grantee will take appropriate enforcement action, which could include a collaborative process between the State and the LEA, or any of the enforcement measures that are detailed in 34 CFR section 80.43 including putting the LEA on reimbursement payment status, temporarily withholding funds, or disallowing costs.

**III. ASSURANCES**

The Participating LEA hereby certifies and represents that it:

- 1) Has all requisite power and authority to execute this MOU;
- 2) Is familiar with the State's Race to the Top grant application and is supportive of and committed to working on all or significant portions of the State Plan;
- 3) Agrees to be a Participating LEA and will implement those portions of the State Plan indicated in Exhibit I, if the State application is funded,
- 4) Will provide a Final Scope of Work to be attached to this MOU as Exhibit II only if the State's application is funded; will do so in a timely fashion but no later than 90 days after a grant is awarded; and will describe in Exhibit II the LEA's specific goals, activities, timelines, budgets, key personnel, and annual targets for key performance measures ("LEA Plan ") in a manner that is consistent with the Preliminary Scope of Work (Exhibit I) and with the State Plan; and
- 5) Will comply with all of the terms of the Grant, the State's subgrant, and all applicable Federal and State laws and regulations, including laws and regulations applicable to the Program, and the applicable provisions of EDGAR (34 CFR Parts 75, 77, 79, 80, 82, 84, 85, 86, 97, 98 and 99).

**IV. MODIFICATIONS**

This Memorandum of Understanding may be amended only by written agreement signed by each of the parties involved, and in consultation with ED.

**V. DURATION/TERMINATION**

This Memorandum of Understanding shall be effective, beginning with the date of the last signature hereon and, if a grant is received, ending upon the expiration of the grant project period, or upon mutual agreement of the parties, whichever occurs first.

**VI. SIGNATURES**

**LEA Director of Schools:**

\_\_\_\_\_  
Signature/Date

\_\_\_\_\_  
Print Name/Title

**Chair of Local Board of Education:**

\_\_\_\_\_  
Signature/Date

---

Print Name/Title

**President of Local Teachers' Association** (if applicable):

---

Signature/Date

---

Print Name/Title

**Tennessee Commissioner of Education:**

By its signature below, the State hereby accepts the LEA as a Participating LEA.

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Signature/Date

---

Print Name/Title



## Tennessee Race to the Top – Appendix A-1-3

LEA hereby agrees to participate in implementing the State Plan in each of the areas identified below.

Elements of State Reform Plans	LEA Participation (Y/N)	Comments from LEA (optional)
<b>B. Standards and Assessments</b>		
(B)(3) Supporting the transition to enhanced standards and high-quality assessments		
<b>C. Data Systems to Support Instruction</b>		
(C)(3) Using data to improve instruction:		
(i) Use of local instructional improvement systems		
(ii) Professional development on use of data		
(iii) Availability and accessibility of data to researchers		
<b>D. Great Teachers and Leaders</b>		
(D)(2) Improving teacher and principal effectiveness based on performance:		
(i) Measure student growth		
(ii) Design and implement evaluation systems		
(iii) Conduct annual evaluations		
(iv)(a) Use evaluations to inform professional development		
(iv)(b) Use evaluations to inform compensation, promotion, and retention		
(iv)(c) Use evaluations to inform tenure and/or full certification		
(iv)(d) Use evaluations to inform removal		
(D)(3) Ensuring equitable distribution of effective teachers and principals:		
(i) High-poverty and/or high-minority schools		
(ii) Hard-to-staff subjects and specialty areas		
(D)(5) Providing effective support to teachers and principals:		
(i) Quality professional development		
(ii) Measure effectiveness of professional development		
<b>E. Turning Around the Lowest-Achieving Schools</b>		
(E)(2) Turning around the lowest-achieving schools		

\_\_\_\_\_  
Director of Schools

\_\_\_\_\_  
Tennessee Commissioner of Education

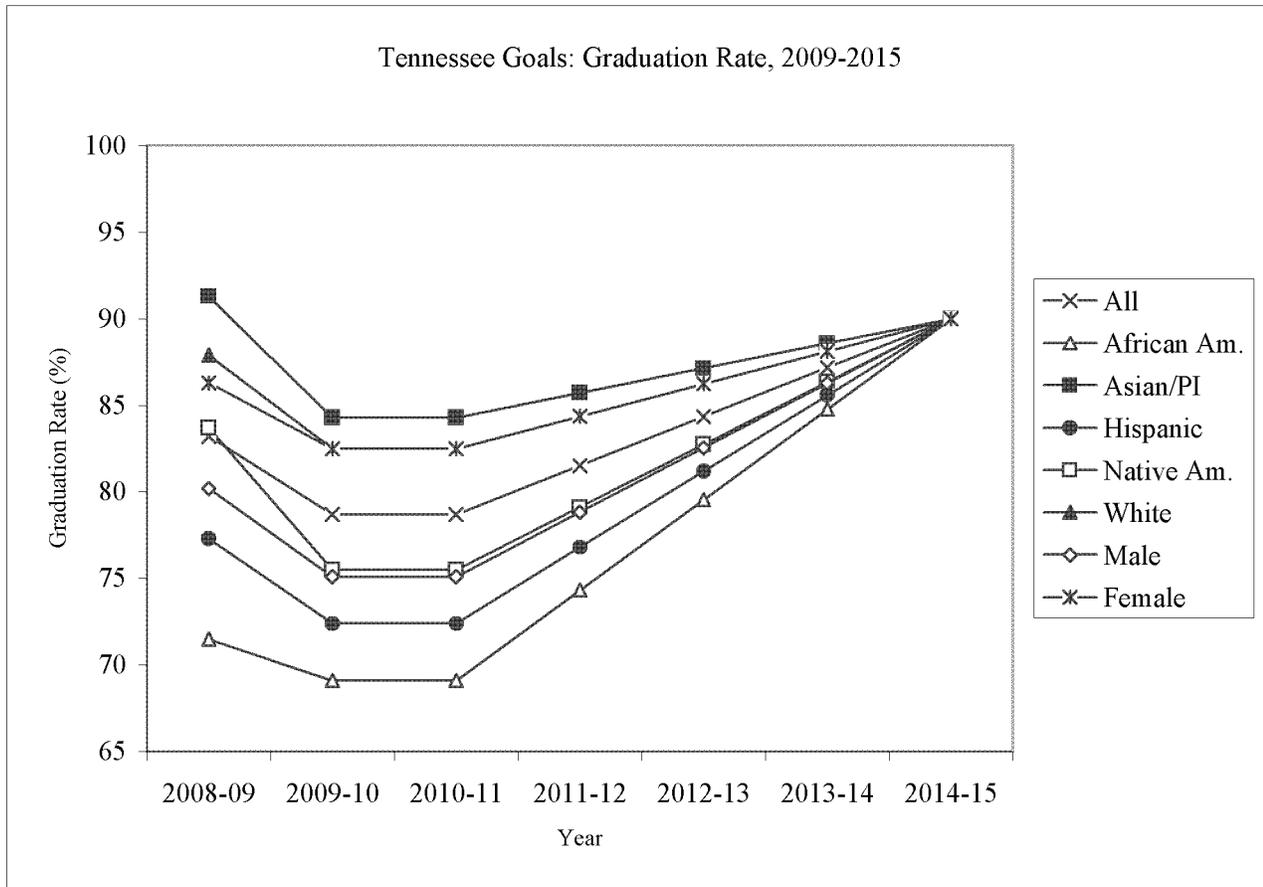
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## Tennessee Race to the Top Appendix A-1-4



Tennessee Department of Education Graduation Rate Goals

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
	Baseline	Estimate	Estimate	Goal	Goal	Goal	Goal
All	83.2	78.7	78.7	81.5	84.4	87.2	90
African Am.	71.5	69.1	69.1	74.3	79.6	84.8	90
Asian/PI	91.3	84.3	84.3	85.7	87.2	88.6	90
Hispanic	77.3	72.4	72.4	76.8	81.2	85.6	90
Native Am.	83.7	75.5	75.5	79.1	82.8	86.4	90
White	87.9	82.5	82.5	84.4	86.3	88.1	90
Male	80.2	75.1	75.1	78.8	82.6	86.3	90
Female	86.3	82.5	82.5	84.4	86.3	88.1	90

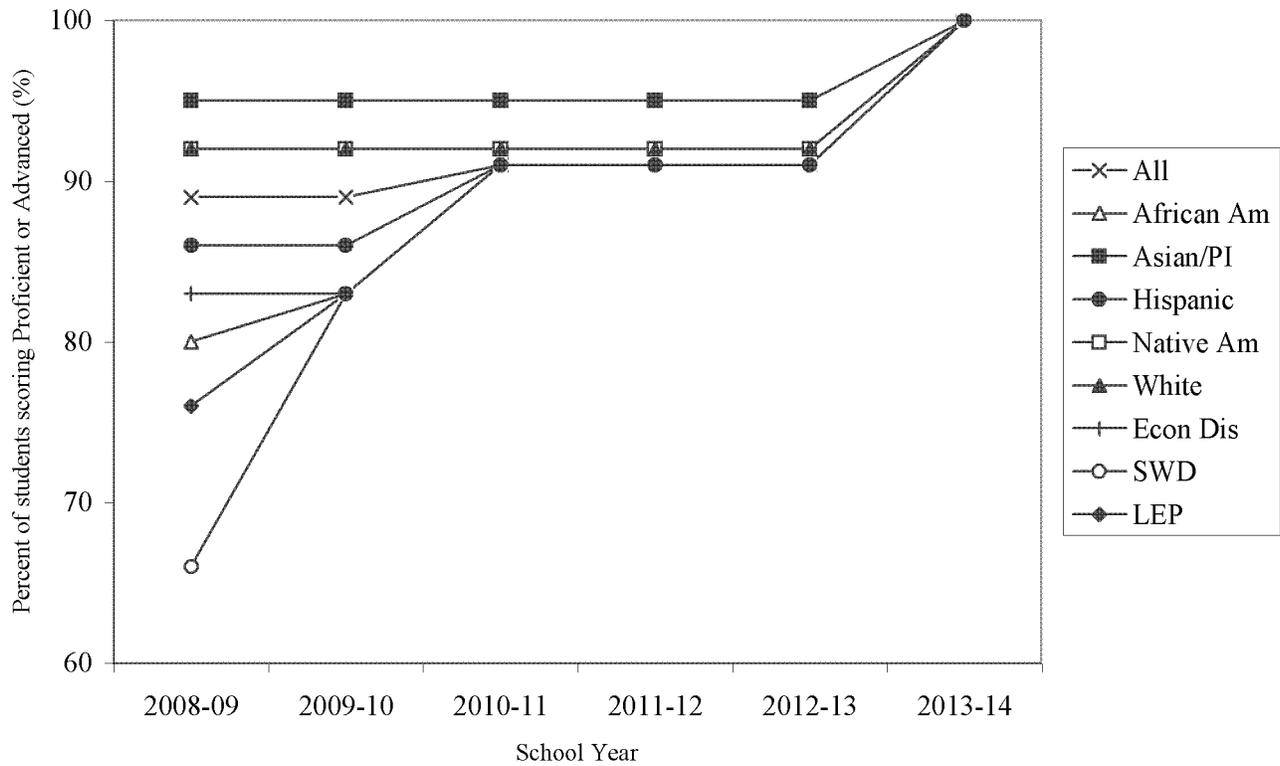
CCRPI Graduation Rate Goals for All Students, 2009-2015

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
	Baseline	Estimate	Goal	Goal	Goal	Goal	Goal
All	83	70	74	78	82	86	90

Tennessee has the capacity to disaggregate this information for race/ethnicity. For the other three required subgroups (Economically Disadvantaged, Students with Disabilities, and Limited English Proficient), Tennessee will begin to track first-time 9th graders for school year 2005-06. In 2009-10, Tennessee will be able to calculate a graduation rate for those three groups.

For the 2009-10 graduating class, Tennessee will use the National Governor's Association (NGA) rate. For 2010-11, Tennessee will use the US DOE mandated 4-year cohort rate. Tennessee expects, based on test calculations of the NGA Rate, the Graduation Rate will decrease between 2008-09 and 2009-10. In the following year, Tennessee expects the rate to remain at a similar rate or possibly decrease slightly when using the US DOE 4-year cohort rate.

Tennessee Goals: Math AYP Achievement for Grades 9-12, 2009-2014



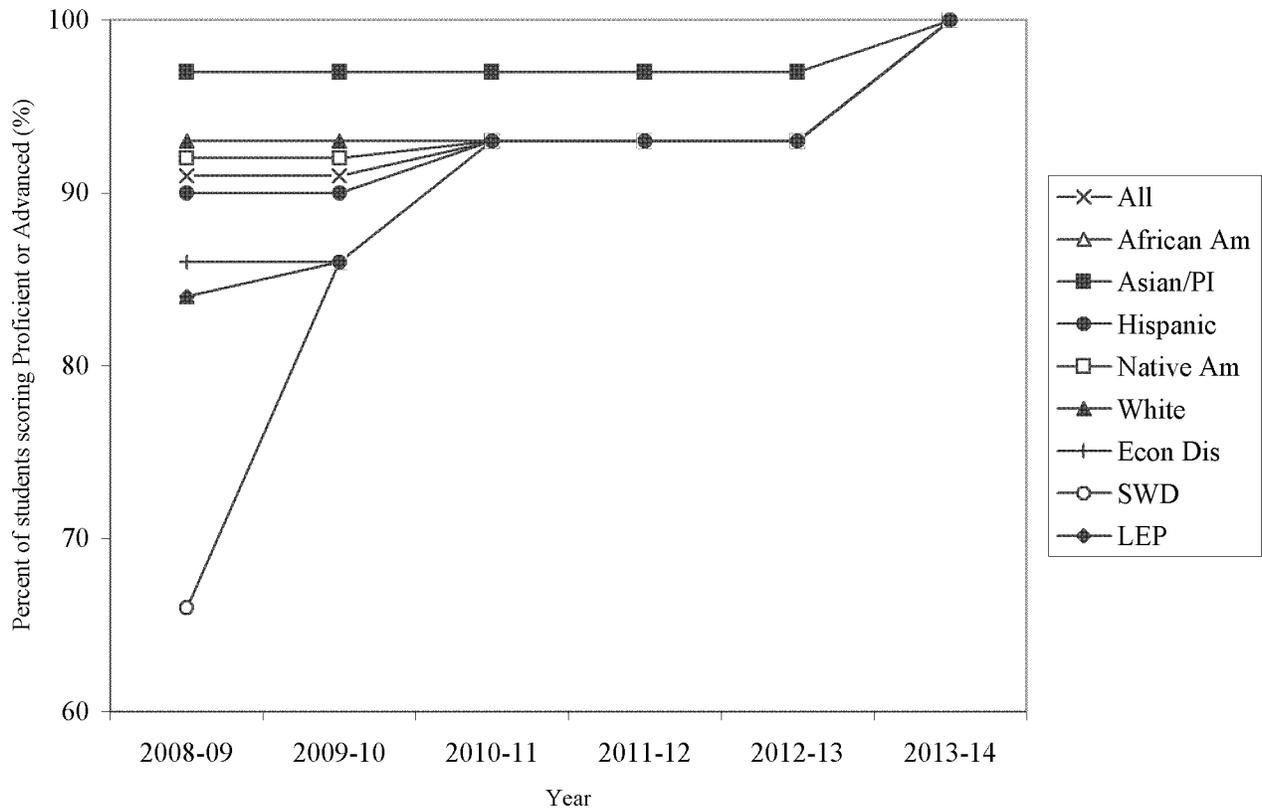
Math AYP Achievement Goals for Grades 9-12, 2009-2014

Year	All	African Am	Asian/PI	Hispanic	Native Am	White	Econ Dis	SWD	LEP
2008-09*	89.0	80.0	95.0	86.0	92.0	92.0	83.0	66.0	76.0
2009-10	89.0	83.0	95.0	86.0	92.0	92.0	83.0	83.0	83.0
2010-11	91.0	91.0	95.0	91.0	92.0	92.0	91.0	91.0	91.0
2011-12	91.0	91.0	95.0	91.0	92.0	92.0	91.0	91.0	91.0
2012-13	91.0	91.0	95.0	91.0	92.0	92.0	91.0	91.0	91.0
2013-14	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

\* - baseline year

The following charts represent current targets and performance levels of subgroups. Achievement Gap data will be adjusted upon the recalibration of new assessments which will determine new AYP benchmark targets. Current projections are based on the most recent administration of the ESEA required assessment and actual subgroup performance (baseline data). Targets are set for a three-year cycle, therefore once the target is realized it must be maintained or increased to stay on track to closing the achievement gap. Tennessee will equate the Tennessee Curriculum Standards and later the Common Core Standards to the Tennessee Comprehensive Assessment Program (TCAP) assessment results using an Equipercentile based statistical adjustment for multiyear, averaging, safe harbor, and second indicator calculations.

Tennessee Goals: Math AYP Achievement for Grades 3-8, for 2009-2014



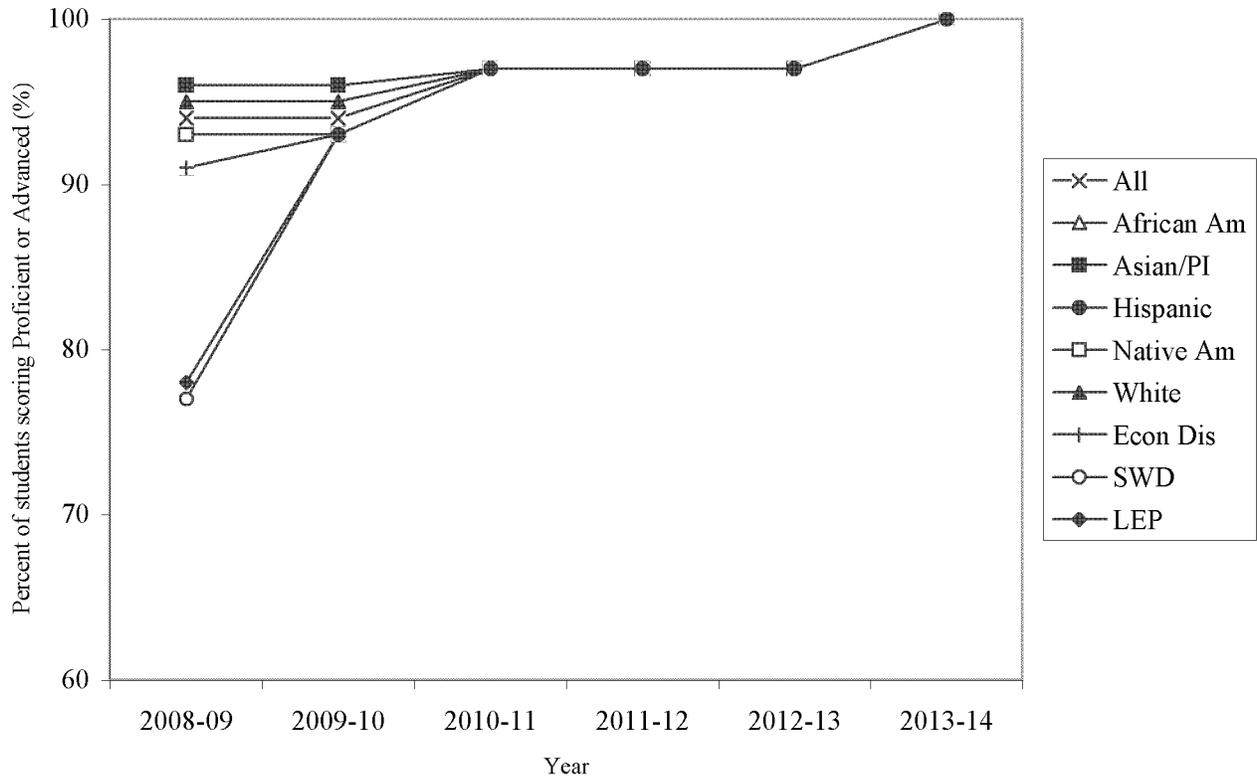
Math AYP Achievement Goals for Grades 3-8, 2009-2014

Year	All	African Am	Asian/PI	Hispanic	Native Am	White	Econ Dis	SWD	LEP
2008-09*	91	84	97	90	92	93	86	66	84
2009-10	91	86	97	90	92	93	86	86	86
2010-11	93	93	97	93	93	93	93	93	93
2011-12	93	93	97	93	93	93	93	93	93
2012-13	93	93	97	93	93	93	93	93	93
2013-14	100	100	100	100	100	100	100	100	100

\* - baseline year

The following charts represent current targets and performance levels of subgroups. Achievement Gap data will be adjusted upon the recalibration of new assessments which will determine new AYP benchmark targets. Current projections are based on the most recent administration of the ESEA required assessment and actual subgroup performance (baseline data). Targets are set for a three-year cycle, therefore once the target is realized it must be maintained or increased to stay on track to closing the achievement gap. Tennessee will equate the Tennessee Curriculum Standards and later the Common Core Standards to the Tennessee Comprehensive Assessment Program (TCAP) assessment results using an Equipercentile based statistical adjustment for multiyear, averaging, safe harbor, and second indicator calculations.

Tennessee Goals: Reading/Language Arts/Writing AYP Achievement for Grades 9-12, 2009-2014



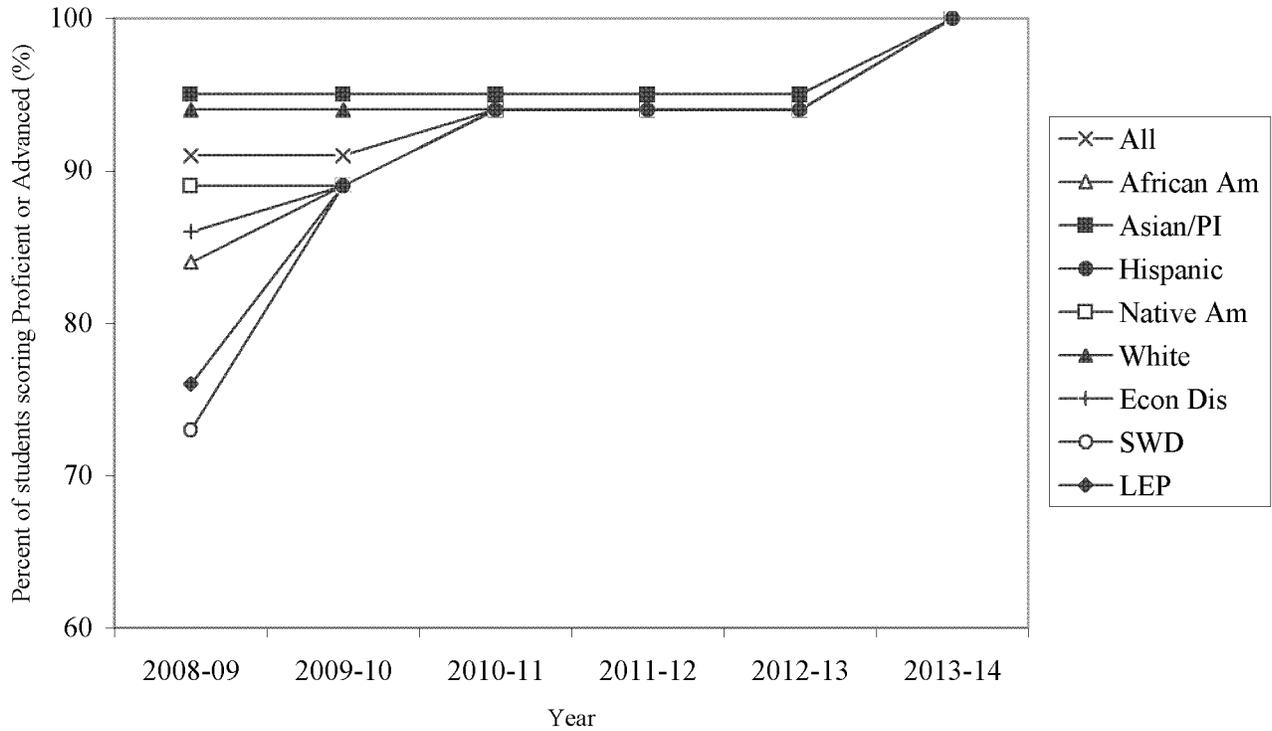
Reading/Language Arts/Writing AYP Achievement Goals for Grades 9-12, 2009-2014

Year	All	African Am	Asian/PI	Hispanic	Native Am	White	Econ Dis	SWD	LEP
2008-09*	94	91	96	91	93	95	91	77	78
2009-10	94	93	96	93	93	95	93	93	93
2010-11	97	97	97	97	97	97	97	97	97
2011-12	97	97	97	97	97	97	97	97	97
2012-13	97	97	97	97	97	97	97	97	97
2013-14	100	100	100	100	100	100	100	100	100

\* - baseline year

The following charts represent current targets and performance levels of subgroups. Achievement Gap data will be adjusted upon the recalibration of new assessments which will determine new AYP benchmark targets. Current projections are based on the most recent administration of the ESEA required assessment and actual subgroup performance (baseline data). Targets are set for a three-year cycle, therefore once the target is realized it must be maintained or increased to stay on track to closing the achievement gap. Tennessee will equate the Tennessee Curriculum Standards and later the Common Core Standards to the Tennessee Comprehensive Assessment Program (TCAP) assessment results using an Equipercntile based statistical adjustment for multiyear, averaging, safe harbor, and second indicator calculations.

Tennessee Goals: Reading/Language Arts/Writing AYP Achievement for Grades 3-8, 2009-2014



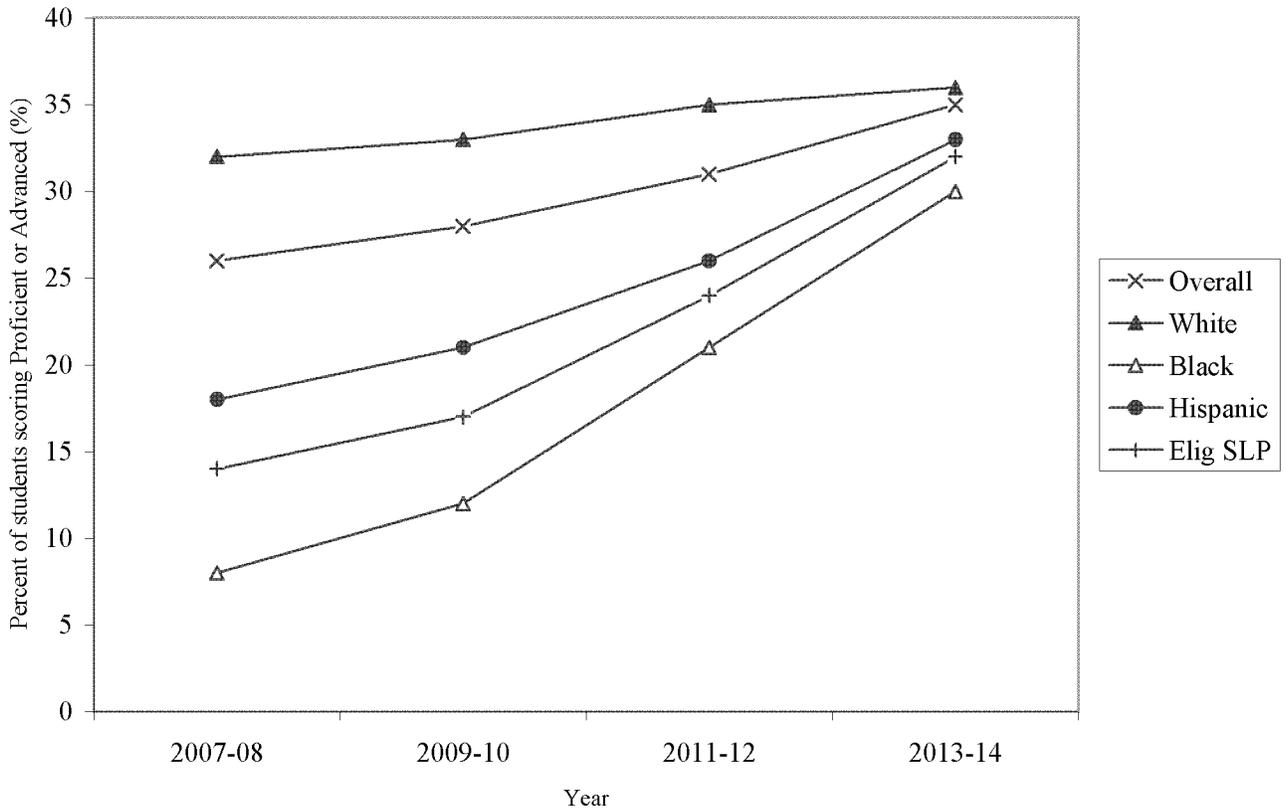
Reading/Language Arts/Writing AYP Achievement Goals for Grades 3-8, 2009-2014

Year	All	African Am	Asian/PI	Hispanic	Native Am	White	Econ Dis	SWD	LEP
2008-09*	91	84	95	86	89	94	86	73	76
2009-10	91	89	95	89	89	94	89	89	89
2010-11	94	94	95	94	94	94	94	94	94
2011-12	94	94	95	94	94	94	94	94	94
2012-13	94	94	95	94	94	94	94	94	94
2013-14	100	100	100	100	100	100	100	100	100

\* - baseline year

The following charts represent current targets and performance levels of subgroups. Achievement Gap data will be adjusted upon the recalibration of new assessments which will determine new AYP benchmark targets. Current projections are based on the most recent administration of the ESEA required assessment and actual subgroup performance (baseline data). Targets are set for a three-year cycle, therefore once the target is realized it must be maintained or increased to stay on track to closing the achievement gap. Tennessee will equate the Tennessee Curriculum Standards and later the Common Core Standards to the Tennessee Comprehensive Assessment Program (TCAP) assessment results using an Equipercetile based statistical adjustment for multiyear, averaging, safe harbor, and second indicator calculations.

Tennessee Goals: NAEP Reading, Grade 8, 2007-2014



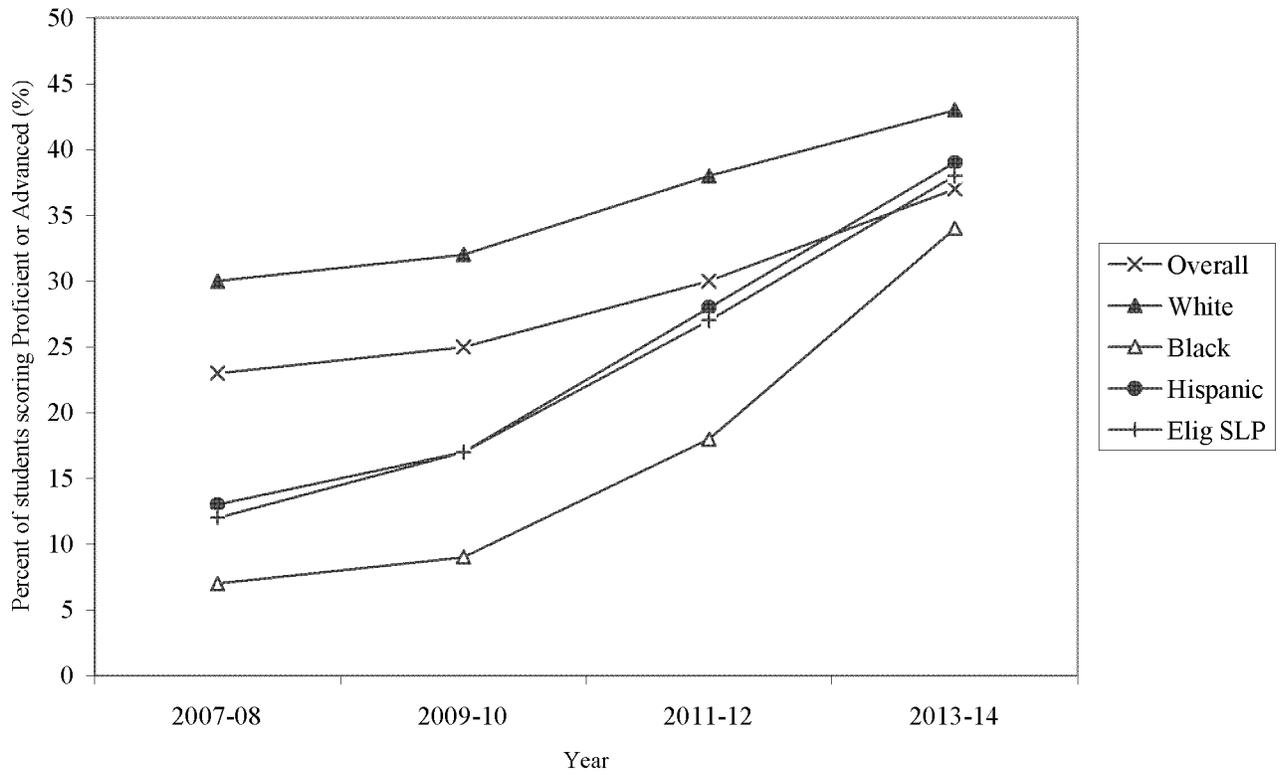
Tennessee Goals: NAEP Reading, Grade 8

	Overall	White	Black	Hispanic	Elig SLP
2007-08*	26	32	8	18	14
2009-10	28	33	12	21	17
2011-12	31	35	21	26	24
2013-14	35	36	30	33	32

\* - baseline year

Elig SLP = Eligible for National School Lunch Program

Tennessee Goals: NAEP Mathematics, Grade 8, 2007-2014



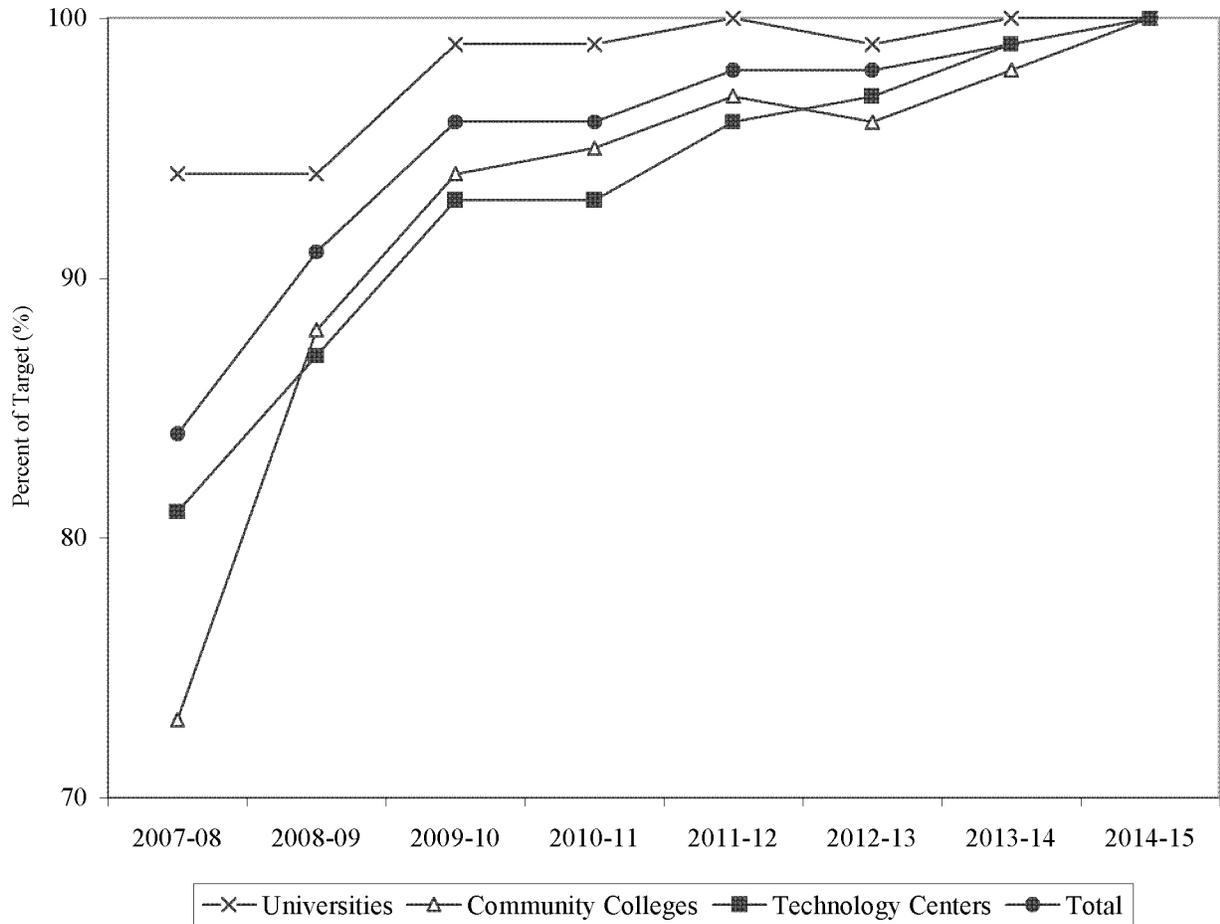
Tennessee Goals: NAEP Mathematics, Grade 8

	Overall	White	Black	Hispanic	Elig SLP
2007-08*	23	30	7	13	12
2009-10	25	32	9	17	17
2011-12	30	38	18	28	27
2013-14	37	43	34	39	38

\* - baseline year

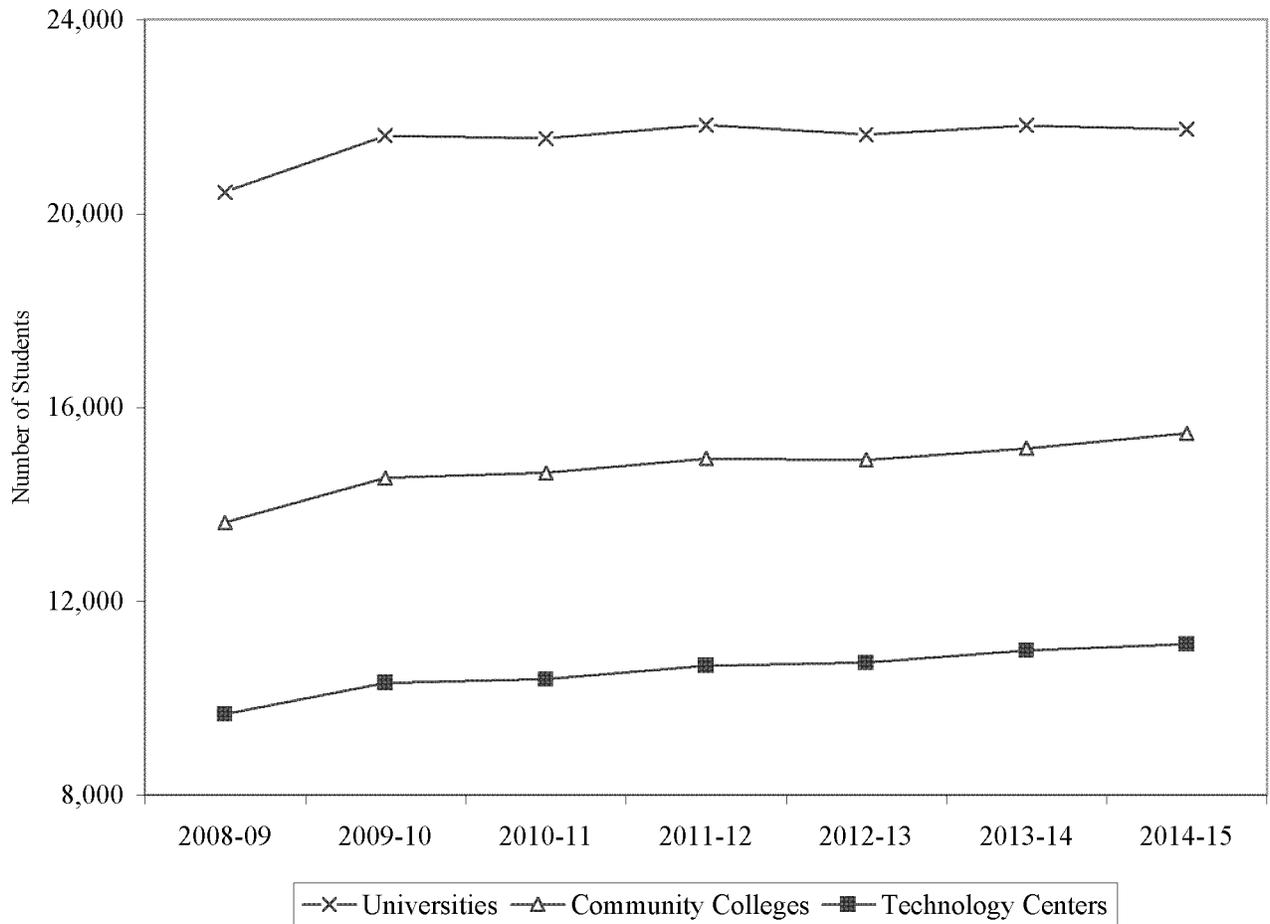
Elig SLP = Eligible for National School Lunch Program

A. Recent public high school graduates enrolled in public postsecondary education.



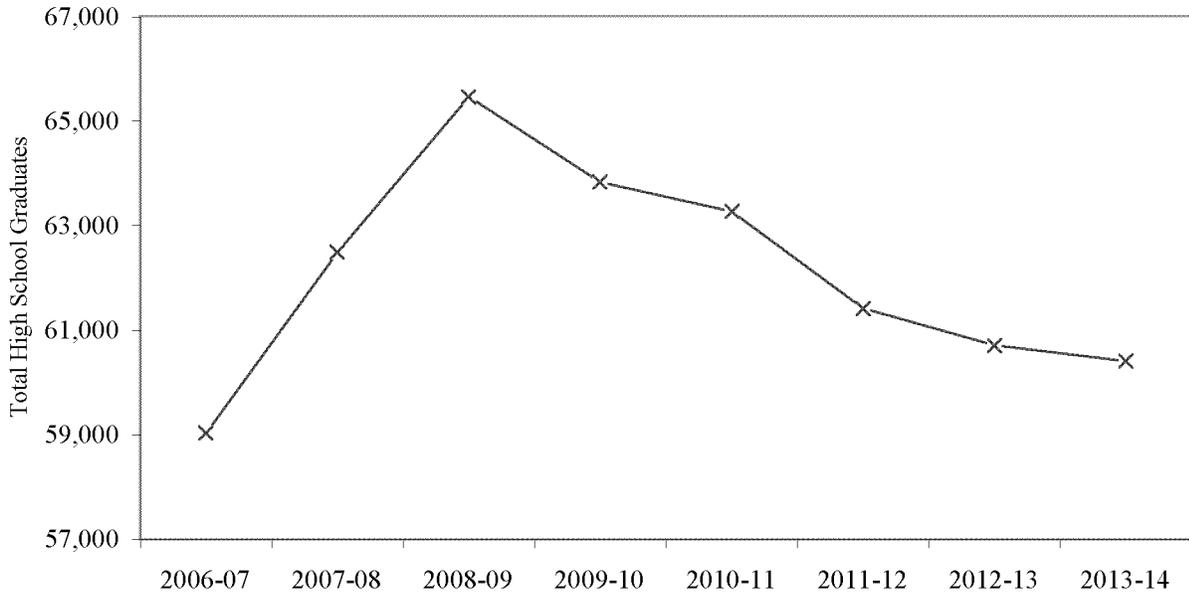
	2007-08	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2014-15
	Actual	Pct of Target	Target							
Universities	19,068	94	94	99	99	100	99	100	100	20,298
Community Colleges	12,376	73	88	94	95	97	96	98	100	16,915
Technology Centers	9,030	81	87	93	93	96	97	99	100	11,116
Total	40,474	84	91	96	96	98	98	99	100	48,329

A. Recent public high school graduates enrolled in public postsecondary education.



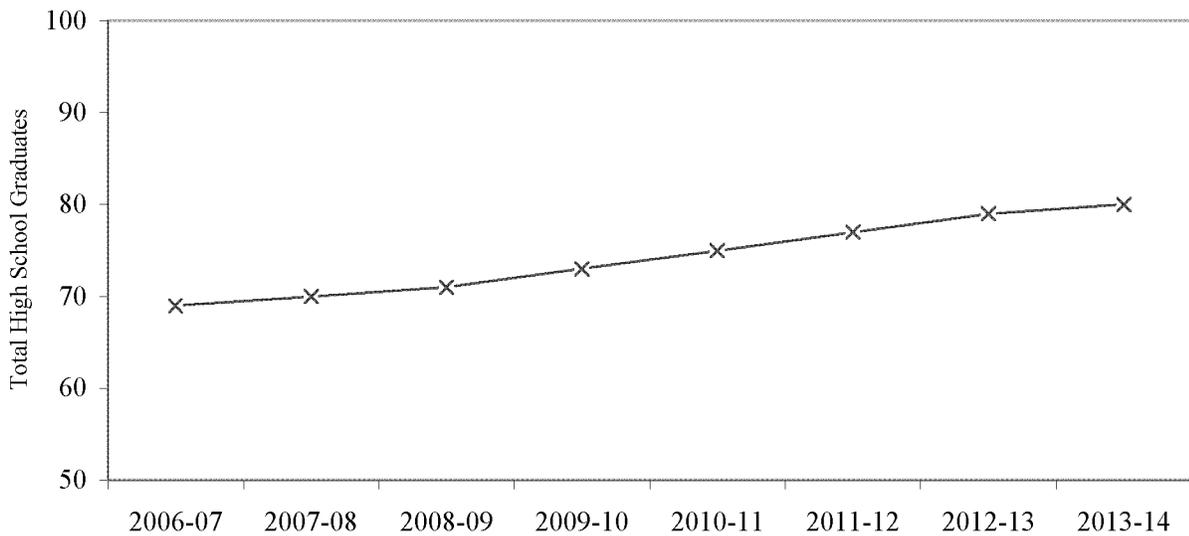
Number of Students	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
	Actual	#	#	#	#	#	#	Target
Universities	19,068	20,451	21,613	21,552	21,831	21,636	21,823	21,748
Community Colleges	12,376	13,627	14,548	14,656	14,950	14,921	15,156	15,465
Technology Centers	9,030	9,668	10,319	10,392	10,678	10,735	10,984	11,116
Total	40,474	43,746	46,480	46,600	47,459	47,293	47,963	48,329

Number of High School Graduates provided by Western Interstate Commission for High Education (WICHE)

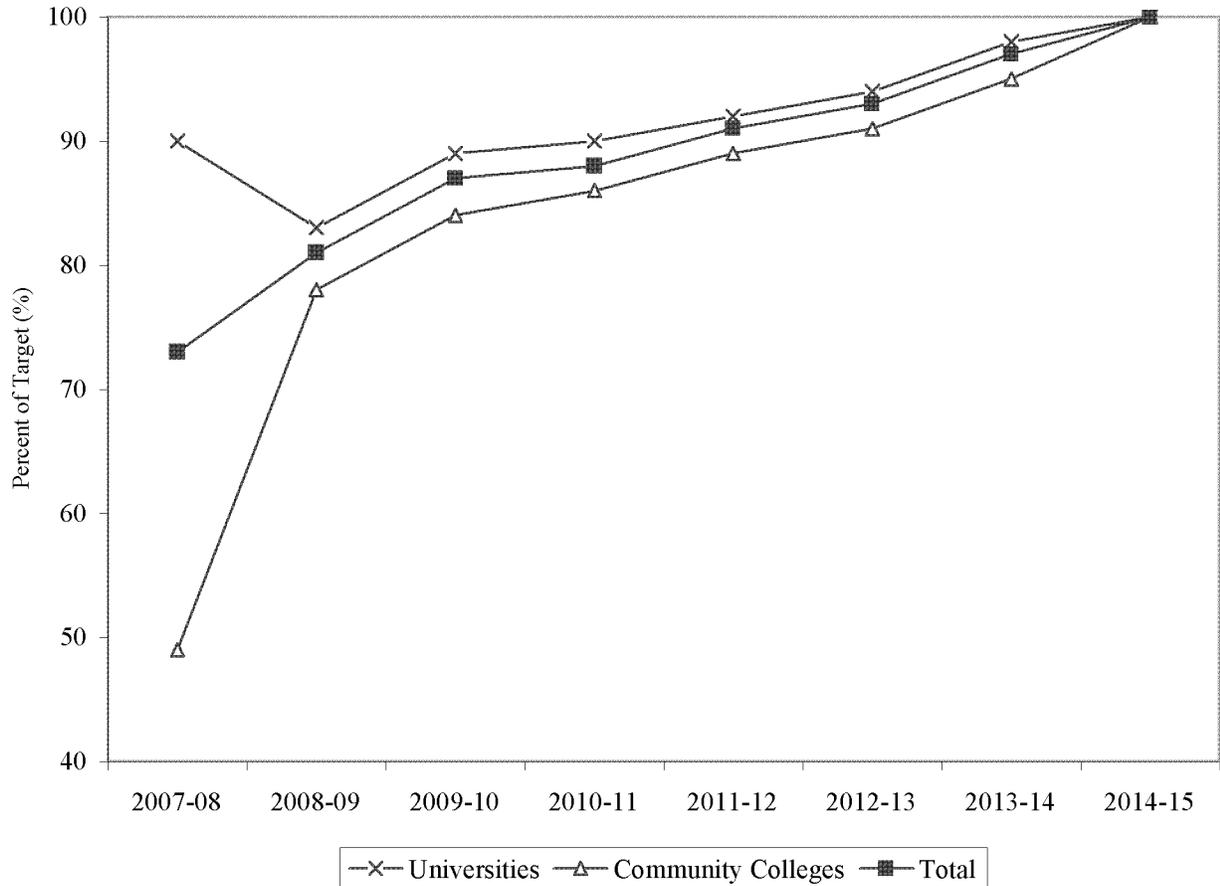


High School Grads	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Public HS Grads	54,041	57,355	60,495	59,296	58,802	57,020	56,334	56,130
Private HS Grads	4,994	5,139	4,970	4,539	4,477	4,399	4,379	4,281
Total HS Grads	59,035	62,494	65,465	63,835	63,279	61,419	60,713	60,411
College-Going Rate	69%	70%	71%	73%	75%	77%	79%	80%

Projected College-Going Rates of Tennessee High School Graduates

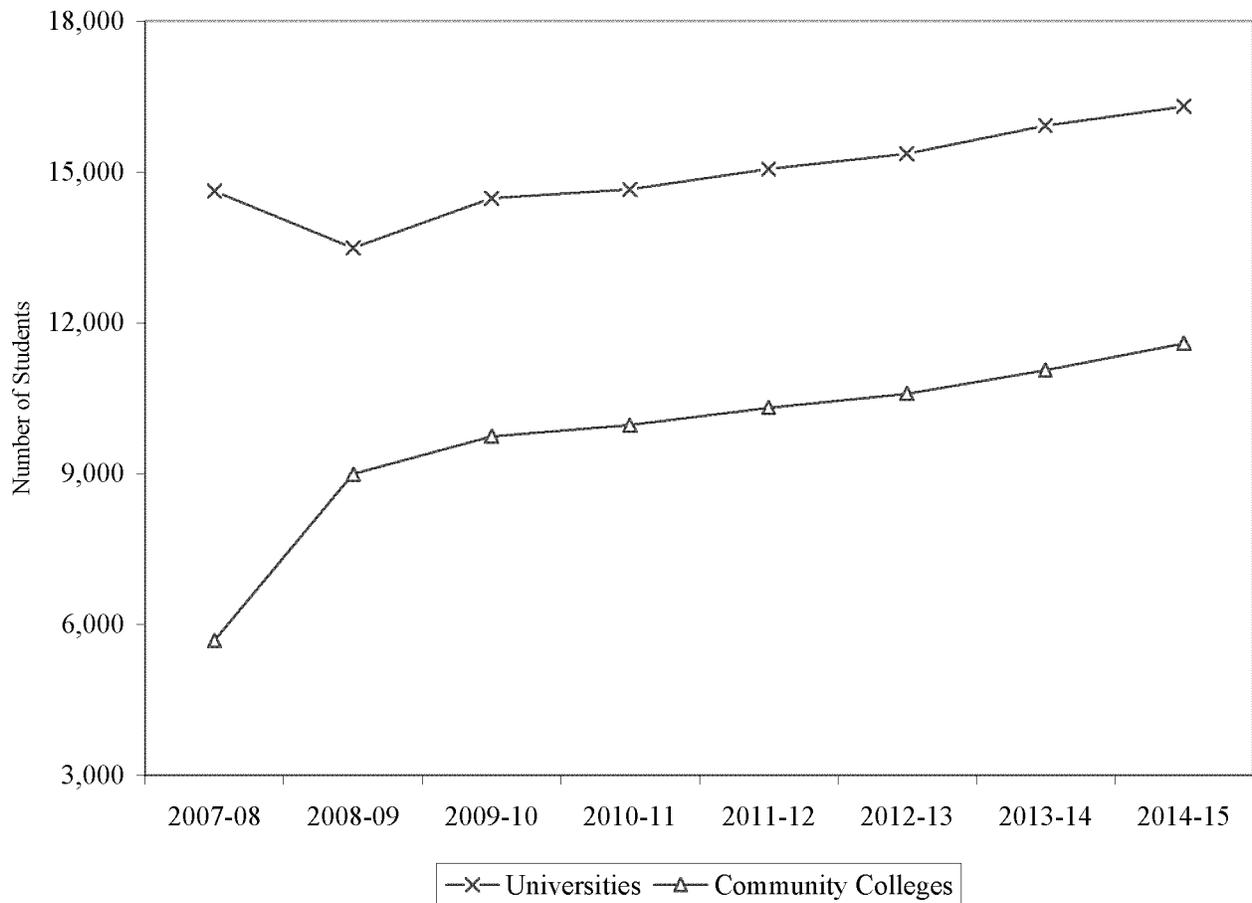


B. The number of students who complete at least a year's worth of college credit that is applicable to a degree within two years of enrollment in an institution of higher education



	2007-08	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2014-15
	Actual	Pct of Target	Target							
Universities	14,621	90	83	89	90	92	94	98	100	16,311
Community Colleges	5,686	49	78	84	86	89	91	95	100	11,599
Total	20,307	73	81	87	88	91	93	97	100	27,910

B. The number of students who complete at least a year's worth of college credit that is applicable to a degree within two years of enrollment in an institution of higher education



Number of Students	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
	Actual	#	#	#	#	#	#	#
Universities	14,621	13,498	14,481	14,656	15,064	15,362	15,931	16,311
Community Colleges	5,686	8,994	9,747	9,966	10,315	10,594	11,064	11,599
Total	20,307	22,491	24,228	24,621	25,379	25,956	26,995	27,910

## Tennessee Race to the Top Appendix A-1-5

### Accommodations Provided in NAEP and Tennessee State Assessments

**NAEP:** Accommodations in the testing environment or administration procedures are provided for students with disabilities and students with limited English proficiency. Examples of accommodations permitted by NAEP are: extra time, testing in small groups or one-on-one sessions, reading aloud to student and scribing student's responses.

Accommodation	NAEP	Tennessee
<b>Presentation Format</b>		
Explanation of directions	Yes	No
Oral reading in English	Yes (except for reading)	Yes (IEP)
Oral reading in native language	No	No
Person familiar to student administers test	Yes	Yes
Translation of directions into native language	No	No
Translation of test into native language	No	No
Bilingual (Spanish) version of test	Yes (mathematics only)	No
Repeat directions	Yes	Yes
Large Print	Yes	Yes
Bilingual dictionary without definitions	Yes (except for reading)	Yes (except for reading)
<b>Setting Format</b>		
Alone in study carrel	Yes	Yes
Administer test in separate room	Yes	Yes
With small groups	Yes	Yes
Preferential seating	Yes	Yes
Special lighting	Yes	Yes
Special furniture	Yes	Yes
<b>Timing/Scheduling</b>		
Extended testing time (same day)	Yes	Yes
More breaks	Yes	Yes
Extending sessions over multiple days	No	No
<b>Response Format</b>		
Braille writers	Yes	Yes
Word processors or similar assistive device	Yes	Yes
Write directly in test booklet	Yes	Yes
Tape recorders	No	Yes
Scribes	Yes	Yes
Answer orally, point to answer	Yes	Yes
One-on-one administration	Yes	Yes
<b>Other Accommodations Provided for State Assessment but not for NAEP</b>		
Braille edition of assessment	No <sup>(1)</sup>	Yes
Audio tape administration of assessment	No	No
Calculator	No	Yes
Abacus	No	Yes (IEP)
Arithmetic tables	No	Yes
Graph paper	No	No
Responses in native primary language	No	No
Thesaurus	No	No
Spelling and grammar checking software and devices	No	No
Signing directions or answers	No <sup>(1)</sup>	Yes

(1) Not provided by NAEP, but school, district, or state may provide after fulfilling NAEP security requirements.



## **Managing Implementation & Delivering Results**

By its nature, the Race to the Top competition encourages states to boldly pursue the reforms necessary to deliver educational results students across the country deserve. In Tennessee, we take this responsibility very seriously and will be good stewards of this responsibility, managing resources effectively, monitoring implementation, and tracking results throughout the project period.

We have built First to the Top not simply to provide opportunity for new programming, but to fully make the long term sustainable educational changes necessary to realize the promise of the Tennessee Diploma Project: every student college and career ready. The effort will be led by the First to the Top Implementation Leadership Team. This team is responsible for ensuring that the federal Race to the Top award is used effectively and as intended. Because the effort involves multiple agencies within state government, many external public, non-profit and private partners the oversight effort will be located in the Governor's Office of State Planning and Policy.

We have modeled our oversight approach on the Tennessee Office of Recovery Act Management, a multi-agency approach to management, implementation and accountability. Applauded for the excellence of this management work and we expect to replicate that experience for education specifically. The First to the Top Leadership Team will be responsible for:

- Monitoring implementation, execution and reporting of the overall First to the Top plan
- Facilitating interagency and partner communication and interaction as intended in the grant
- Serving as the umbrella group that brings together the varying efforts within the plan to assure implementation functions among institutions, projects and initiatives are connected, eliminating unnecessary duplication of effort and aligning work streams when possible
- Assuring transparent and consistent communication with the public about progress on the First to the Top efforts

The First to the Top Team will be lead by a senior level executive with experience in education, management and state government who serves at the pleasure of the governor. The First to the Top team leader will lead an internal staff team that includes staff members from the Department of Education, Tennessee Higher Education Commission, Finance & Administration, in cooperation with the Comptroller's Office of Education Accountability to ensure that the legislature's oversight mechanism effectively provides on-going, real-time information to the legislature about the implementation. These professionals will have some of their time reassigned from their home agency to perform these duties. In addition, there will be two full-time professionals assigned to assist with start-up activities during the first 12 – 24 months. Funding for this team will largely be provided through existing state resources. Any funding from a Race to the Top award will be used in a fashion that supports the work of the team but does not create an ongoing obligation for the state.

The First to the Top Implementation Leadership Team will include key members of the Race to the Top Leadership Team that developed the proposal to provide consistency from proposal to initial

implementation as well as follow through during gubernatorial transition. The team leader will begin briefing policy advisors from the gubernatorial campaigns upon award of the grant. This will continue throughout the summer and fall, and until a new governor is elected. Governor Bredesen is committed to a smooth gubernatorial transition that provides the new administration with the support, information and continued implementation effort needed to assure work continues forward on First to the Top. As the team leader will serve at the pleasure of the governor, Tennessee's chief executive may install another candidate at any time.

The Department of Education will be the main agency implementing First to the Top efforts. To do so effectively, the department will be reorganized to accomplish this goal (see separate organizational chart in Appendix A- 2- 2) and have the assistance of the Education Delivery Institute in shifting the organizational culture from being compliance-driven to customer service and reform focused.

Organizational change will include creation of:

- **Educational Delivery Unit** – responsible for data driven performance management of department programs and operations
- **Achievement School District Office** – responsible for the operations of the new school district to transform Tennessee's lowest performing schools
- **Office of Reform and Innovation** – responsible for working directly with the state level reforms, as well as support for districts and schools in development, approval and monitoring of their scopes of work
- **Office of Federal Programs** – responsible for managing federal grant funding

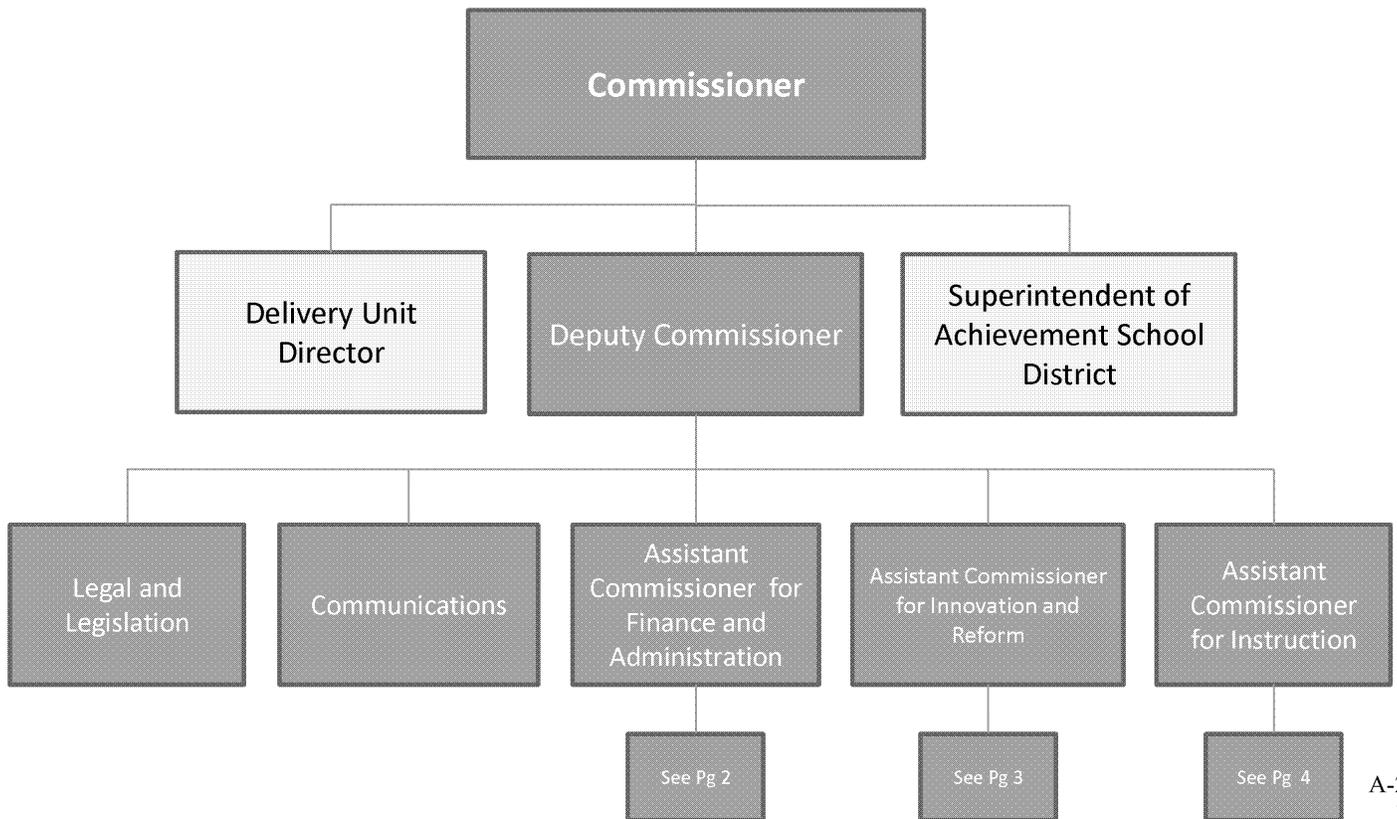
However, as stated previously, Tennessee is not interested in adding ongoing financial obligations beyond the term of this grant, but rather creating fundamental transformation change in the way the agency functions on a daily basis.

The Leadership Team's work will be informed by the Tennessee Consortium for Research, Evaluation & Development (TN CRED) Team's work. TN CRED is comprised of prominent researchers from within and beyond Tennessee. They will be identifying and determining the driving research questions that will inform the work going forward, work to fully exploit the power of the state's rich data, and provide insights into outcomes achieved.

Together, the Governor's Office of Planning and Policy, First to the Top Leadership Team, Department of Education and TN CRED will ensure that the U.S. Department of Education's can be confident in an investment in Tennessee.

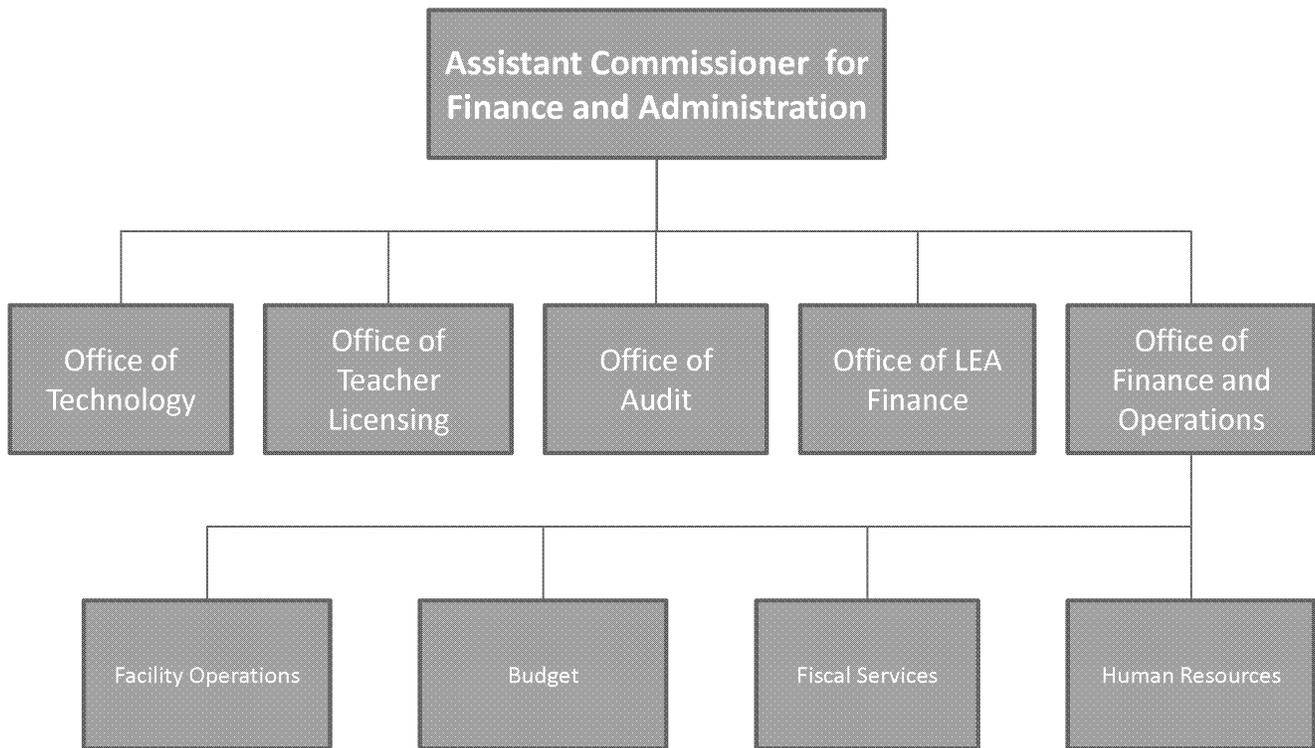


# Tennessee Department of Education Organizational Structure



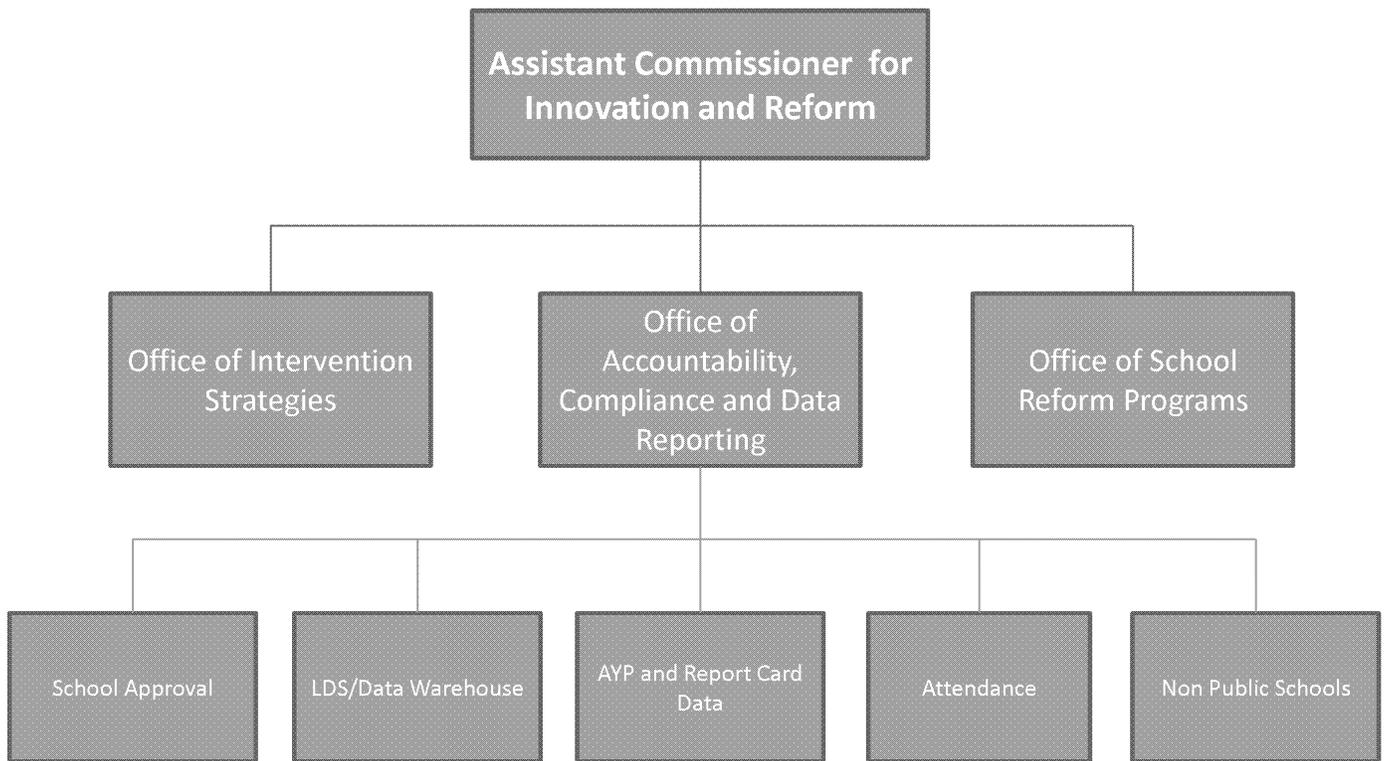


# Tennessee Department of Education Organizational Structure Assistant Commissioner Level 1





# Tennessee Department of Education Organizational Structure Assistant Commissioner Level 2

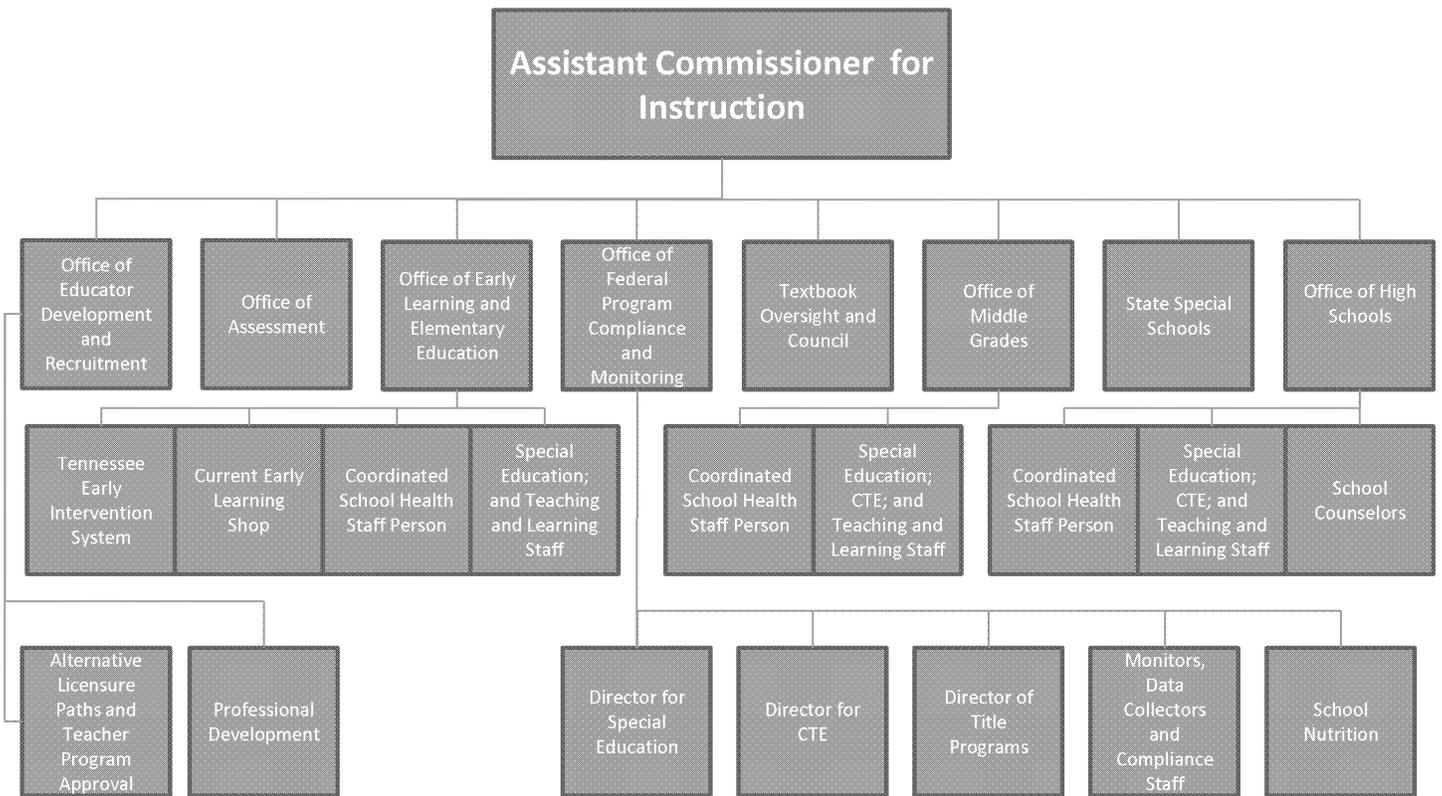




# Tennessee Department of Education

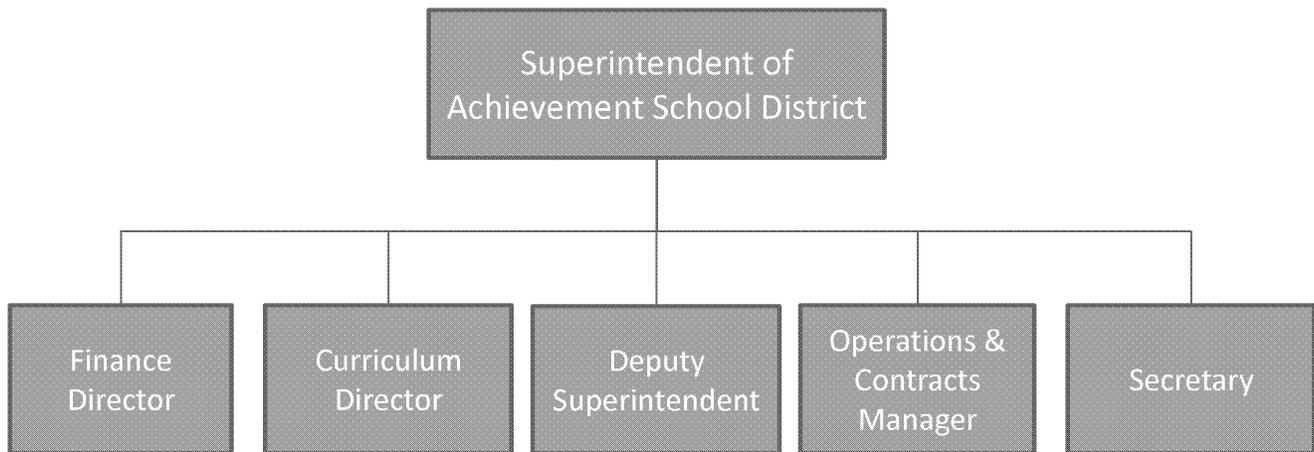
## Organizational Structure

### Assistant Commissioner Level 3





# Tennessee Department of Education Organizational Structure





January 16, 2010

Dr. Timothy Webb  
Commissioner of Education  
Tennessee Department of Education  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb:

This letter confirms the Tennessee Education Association's commitment to continue our work with you to further Tennessee's progress in the "four assurance" areas of the Race to the Top program. We pledge our support for Tennessee's RTTT application. We are confident that our collaborative efforts place us among the top contenders for participation. TEA and its 138 local affiliates have an abiding concern in improving the performance of the boys and girls in every Tennessee school system.

TEA represents 55,000 teachers, principals and education support professionals. We are the voice of and advocates for Tennessee's teachers. Though Tennessee is a right-to-work state ninety percent of our members are covered by negotiated contracts.

We advised all of our local affiliates to sign their LEAs Memorandum of Understanding in order to support Tennessee's RTTT application. Further, we recommended that they commit themselves to negotiate the appropriate components outlined in the school system's scope of work.

We will provide assistance to locals as they move through the process of negotiating RTTT related subjects.

During the recent special session of the legislature we partnered with Governor Bredesen to make the necessary changes in state law to improve the competitiveness of Tennessee's application.

While we have reservations about the use of student performance data in teacher and principal evaluations, we have agreed to partner with the state to develop a new evaluation system that uses such data effectively and fairly.

During the special session we also supported changes in state law to remove the prohibition against using Tennessee Value-Added Assessment System data only after each teacher had accumulated a three year average. This allows the use of the data in tenure decision making.

Our members participated in the writing of the state's new curriculum standards as well as served on various state boards and State Department of Education committees, commissions and work groups.

We are excited about our collaboration with the state in developing appropriate new assessments, benchmark testing and teacher-friendly, easier to use data systems.

While we have not opposed alternative licensure as a concept we believe we must work to ensure the rigor of alternative licensure programs.

TEA's seven largest affiliates continue to work with the state to ensure equitable distribution of effective teachers and principals.

We supported the governor's legislation that makes it possible for the state to create an Achievement School District to help chronically low-performing schools improve while ensuring teacher rights.

We are pleased to pledge the ongoing support of the leadership, members and staff of TEA to Tennessee's Race to the Top application and the successful implementation of the related programs.

Sincerely,

(b)(6)

Earl Wiman, President  
Tennessee Education Association

**MORRISTOWN WEST HIGH SCHOOL**

1 TROJAN TRAIL  
MORRISTOWN, TN 37814  
OFFICE 423-581-1600 FAX 423-585-3791  
"WHERE CHAMPIONS ARE MADE"

FROM THE DESK OF DR. MOORHOUSE

Governor Phil Bredesen  
Governors Office  
Tennessee State Capitol  
Nashville, TN 37243

January 8, 2010

Governor Bredesen,

My name is Dr. Jeff Moorhouse and I am the chair of the Principals Study Council for the State of Tennessee. I am writing on behalf of our organization expressing our support for the efforts of the Tennessee Department of Education in applying for the "Race for the Top" grant which is being offered by the federal government.

The Principals Study Council supports the main philosophy of the grant. Our state has a long tradition of measuring the growth of students in our schools. Much effort has been made in our state to raise the bar for all students. Our curriculum standards have been realigned and we have adopted the standards of the American Diploma Project. We have embraced accountability for our students as well as our educators. We look forward to the possibility of improved assessments which can inform instruction and thus lead to increased performance.

Many individuals have dedicated themselves to touching the lives of the young people of our great state. The efforts to secure the funding necessary to overcome any barriers to Tennessee becoming one of the top education states is both needed and appreciated.

Respectfully,

A handwritten signature in cursive script that reads "Jeff Moorhouse".

Dr. Jeff Moorhouse



January 15, 2010

The Honorable Arne Duncan  
Secretary  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202

Dear Secretary Duncan:

We wish to voice our enthusiastic support for Tennessee's Race to the Top proposal. We believe a strong education system is paramount for the future prosperity of Tennessee and our nation. Tennessee's proposal provides exactly the bold ideas needed to achieve America's promise.

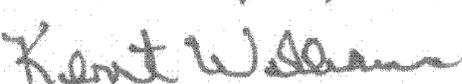
The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction through a revamped evaluation instrument;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools.

We pledge to exercise the powers of our offices to vigorously support Tennessee's Race to the Top proposal and commit to support the legislation required to achieve the goals stated therein, and assist in providing positive conditions for reform throughout the state.

The Governor and the Tennessee General Assembly have a proven track record of coming together in support of education. We are all dedicated to continuing that track record and will continue to see the effort to improve student achievement through from this day forward, continuing well after the plan is funded. Sincerely,

  
The Honorable Ron Ramsey  
Lieutenant Governor and Senate Speaker  
State of Tennessee

  
The Honorable Kent Williams  
Speaker, House of Representatives  
State of Tennessee



The Honorable Jamie Woodson  
Senate Speaker Pro Tempore  
State of Tennessee



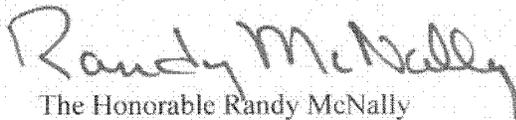
The Honorable Lois DeBerry  
House Speaker Pro Tempore  
State of Tennessee



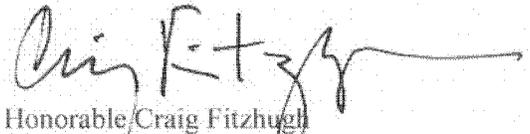
The Honorable Dolores Gresham  
Chair, Senate Education Committee  
State of Tennessee



The Honorable Harry Brooks  
Chair, House Education Committee  
State of Tennessee



The Honorable Randy McNally  
Chair, Senate Finance Ways & Means Committee  
State of Tennessee



The Honorable Craig Fitzhugh  
Chair, House Finance Ways & Means Committee  
State of Tennessee

Congress of the United States  
Washington, DC 20515

January 11, 2010

The Honorable Arne Duncan  
Secretary  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202

Dear Mr. Secretary:

We are writing in strong support of the Tennessee Department of Education's (TDOE) application for the Race to the Top Assessment (RTTT) Program.

Governor Bredesen and TDOE believe that RTTT provides a significant opportunity for Tennessee to solidify its ongoing education reform efforts to improve opportunities for all of Tennessee's students. In utilizing these federal funds, Tennessee seeks to capitalize on its assets – a rich pool of data, a plan for revamped standards and assessments, increasing collaboration with high-tech firms and facilities, and an expanded charter school system. Tennessee's RTTT proposal builds upon these assets and will accelerate reforms necessary to support educational achievement and excellence. The proposal outlines reforms in four specific areas:

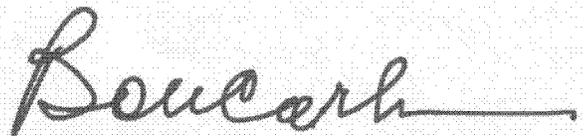
- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that accurately measure student growth and success, and inform teachers and principals on how they can improve instruction;
- Recruiting, developing, rewarding and retaining effective teachers and principals, especially where they are needed most; and
- Turning around Tennessee's lowest-achieving schools.

We hope you will give all due consideration to this application. We'd be glad to furnish additional information, or your office may wish to be in touch with David Cleary with Senator Alexander at (202) 224-2294 or Lauren Alfred with Congressman Gordon at (202) 225-4231.

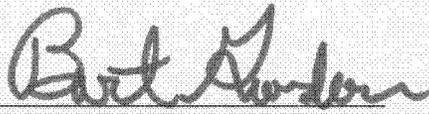
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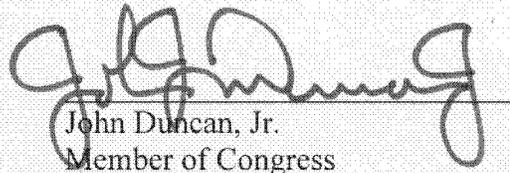
Lamar Alexander  
United States Senator



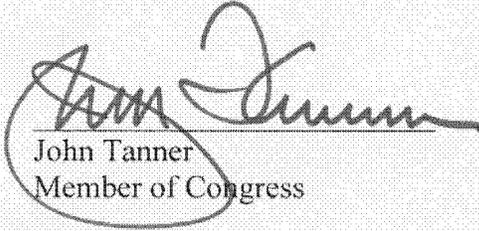
Bob Corker  
United States Senator



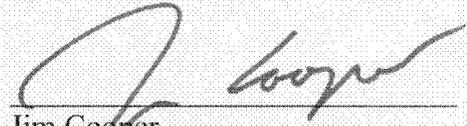
Bart Gordon  
Member of Congress



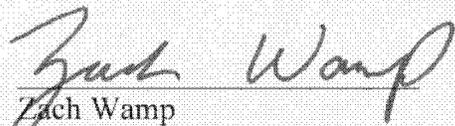
John Duncan, Jr.  
Member of Congress



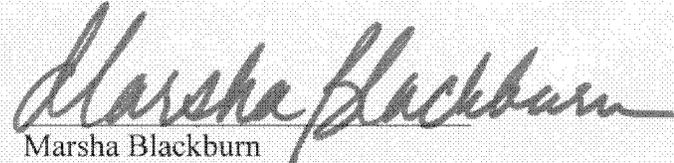
John Tanner  
Member of Congress



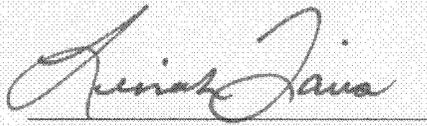
Jim Cooper  
Member of Congress



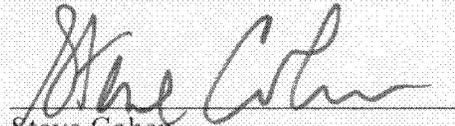
Zach Wamp  
Member of Congress



Marsha Blackburn  
Member of Congress



Lincoln Davis  
Member of Congress



Steve Cohen  
Member of Congress



Phil Roe  
Member of Congress



January 18, 2010

The Honorable Arne Duncan  
Secretary  
U.S. Department of Education  
400 Maryland Avenue S.W.  
Washington, D.C. 20202

Dear Secretary Duncan:

As candidates in Tennessee's 2010 governor's race, we are writing to express our support for the Volunteer State in the Race to the Top competition for education innovation.

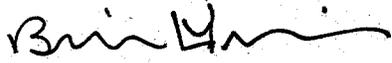
Our state is poised at a unique moment in time. The Tennessee Diploma Project has established the framework for a public education system focused on career- and college-readiness. The governor and the legislature — with the support of teachers — have enacted new policies that promote the development of great teachers in the classroom.

It is clear that Tennessee has an opportunity to accomplish meaningful education reform. Now, looking ahead: If our state is successful in Race to the Top, it also must deliver on the proposed programs and investments in a manner that effectively spans the transition in January 2011 from the current governor to the next governor.

We recognize the challenges in sustaining education reform across gubernatorial administrations and shifts in the legislature. But Tennessee has a history of meeting these challenges in a bipartisan manner, and we believe the Volunteer State's work in Race to the Top will be no different.

We offer our support for Tennessee in the Race to the Top competition. Should our state succeed in the competition, we will continue the focus on education and work tirelessly to implement the reforms necessary to transform our schools and offer our children a better future.

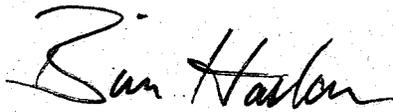
Sincerely,



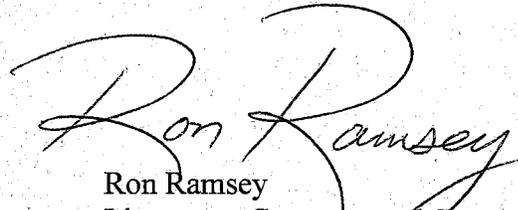
Bill Gibbons  
District Attorney General  
30<sup>th</sup> Judicial District, Shelby County



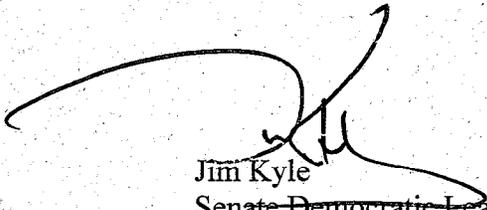
Mike McWherter  
Businessman  
Jackson, TN



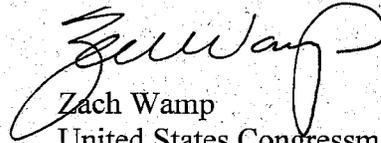
Bill Haslam  
Mayor  
City of Knoxville



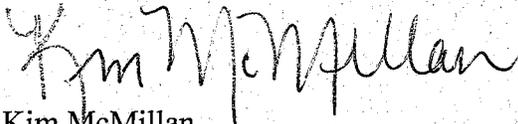
Ron Ramsey  
Lieutenant Governor and Senate Speaker  
State of Tennessee



Jim Kyle  
Senate Democratic Leader  
State of Tennessee



Zach Wamp  
United States Congressman  
Third District, Tennessee



Kim McMillan  
Executive Director, Community and Business Relations  
Austin Peay State University

# METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY



KARL F. DEAN  
MAYOR

OFFICE OF THE MAYOR  
METROPOLITAN COURTHOUSE  
NASHVILLE, TENNESSEE 37201  
PHONE: (615) 862-6000  
FAX: (615) 862-6040

January 7, 2010

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

The Federal *Race to the Top* grant provides an unprecedented opportunity, which will allow all Tennessee students to prepare for success in college and the workforce. As Governor, you have championed raising the state's bar on teacher accountability and student achievement. The Tennessee Diploma Project is a direct reflection of your strong commitment to our state's public education system.

The Tennessee *Race to the Top* proposal will accelerate your bold reforms and the supports necessary to actualize them. The proposal also recognizes the state's substantial educational assets, value added data warehouse, and the deep impact that linking strong standards to identifying and supporting teacher effectiveness will have on student achievement.

Please accept this letter as one of strong support for Tennessee's *Race to the Top* proposal. As mayor of the state's capitol and second largest city, I commit my office to work in solid partnership with your administration and the Tennessee Department of Education in order to implement all identified measures of reform.

Since taking office, ensuring the educational success of our children and youth, has been my top priority. With your leadership and the bold reform measures outlined in the proposal, I am confident that Tennessee, and more specifically Nashville, will achieve its identified goals.

Sincerely,

A handwritten signature in black ink, appearing to read "K.F. Dean", with a stylized flourish at the end.

Karl F. Dean  
Mayor



Charter School Growth Fund  
Helping public education thrive.

January 12, 2010

Tennessee Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

The Charter School Growth Fund (CSGF) is pleased to express its support for Tennessee's participation in the Race to the Top application and the reform plan the Department of Education has developed to dramatically change education in the state so it works for every child in Tennessee. We are impressed by Tennessee's bold vision, recent regulatory changes, and conditions for success, and believe that the state is an excellent candidate for the Race to the Top.

Since its founding in 2005, CSGF has invested over \$75 million in the development and expansion of outstanding charter school networks in underserved communities across the nation. Our work with your leaders has left us deeply impressed with Tennessee's commitment to serious reform and we believe that Tennessee is well-positioned to chart a bold course in the future.

Indeed, Tennessee's Race to the Top Application is built on visionary and ambitious reforms. The state's plan, including the creation of the Achievement School District, will provide many of the conditions that we believe are crucial for providing high-quality educational options, including direct governance authority and the ability to authorize new high-quality charter schools, providing public facilities for all public school students including charter school students, and being willing to contract out the management of schools under completely different conditions to high-performing third parties who are held accountable for student results.

With its Race to the Top plan, we believe Tennessee can fundamentally transform the expectations of what is possible for the state and its most underserved students, as well as build a base of capacity for wider, permanent changes across the state. We are supportive of the boldness and vision outlined in Tennessee's plan.

Sincerely,

  
(b)(6)

Kevin Hall  
CEO



January 13, 2009

Tennessee Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

The Knowledge is Power Program (KIPP) is pleased to express its support for Tennessee's participation in the Race to the Top application and the reform plan the Tennessee Department of Education has developed in collaboration with the state's education community and groups in and outside of Tennessee.

In recent years, KIPP has worked closely with educators and communities in Tennessee to open two of the highest performing open-enrollment public schools. We have benefitted from the progressive thinking and the belief in putting students first that stems from education leaders in Tennessee. And we firmly believe that without the state's current leadership and vision, our students would not be on the transformative path that they find themselves on today.

In its Race to the Top application, Tennessee has articulated an aggressive plan to implement a bold reform agenda, pursuing and expanding upon its current innovative strategies to improve public education so that more of the state's children achieve at high levels, develop competitive skills, and become productive members of society.

We wholeheartedly support the strategies to meet these goals that Tennessee has outlined in its application, and are excited about the potential opportunity to expand KIPP's work in Nashville and Memphis. We hope that others will join us in embracing this opportunity to participate in bold reforms to dramatically improve the education system in Tennessee.

Sincerely,

(b)(6)

Randy Dowell  
School Leader, KIPP Academy Nashville

Jamal McCall  
Executive Director, KIPP Memphis

# New Leaders *for* New Schools

January 15, 2010

Tennessee Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243- 0001

Dear Governor Bredesen:

New Leaders for New Schools is extending its support for Tennessee's Race to the Top application and the reform plan that the state has designed to drive student achievement throughout the state.

New Leaders for New Schools provides intensive instruction, hands-on experience, and ongoing support to create a pathway for current and former educators to become outstanding principals who achieve dramatic results in urban public schools. As you know, New Leaders for New Schools has been working in Memphis, Tennessee since 2004. In partnership with Memphis City Schools, we have recruited 64 candidates, in 6 cohorts of New Leaders, for the principalship and the assistant principalship.

We believe that Race to the Top is Tennessee's opportunity to be on our nation's leading edge in defining principal effectiveness and aligning state and district policies, practices and programs to this definition in order to drive principal and teacher effectiveness, and student achievement throughout the state.

Sincerely,

(b)(6)

Jean Desravines  
Chief Officer for Cities and Policy

National & New York  
Program Office  
30 West 26th Street  
2nd Floor  
New York, NY 10010  
Tel: 646-792-1070  
Fax: 646-792-1071  
www.nlms.org

One day, all children in this nation will have the opportunity to attain an excellent education.

**TEACHFORAMERICA**

January 12<sup>th</sup>, 2010

Tennessee Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243

Dear Governor Bredesen:

Teach for America is pleased to express its support for Tennessee's Race to the Top application and the reform plan developed by the Tennessee Department of Education, local and state-wide stakeholders, and national partnership organizations.

Teach For America is deeply invested in further supporting the state's human capital strategy. At present, we have 150 corps members working in Nashville and Memphis, and are excited about the opportunity to increase our impact. We see Tennessee's Race to the Top application as a unique opportunity to build on, and expand, the state's commitment to recruit, select, train, and support exceptional new teachers while providing intensive efforts to help turnaround failing schools.

By seizing the opportunity provided by Race to the Top we can help change the life paths of students in our state. We know what is possible when our kids have the right leadership in their classrooms and in their schools; we further know what our kids are capable of when challenged to meet rigorous expectations – they achieve at the highest level.

Teach For America Tennessee wholeheartedly supports the goals and strategies outlined in Tennessee's application and we remain committed to dramatically improving education in our state. We hope that others will join us by embracing the bold reforms proposed by the state so that we can work together with one purpose-to ensure that all students in Tennessee have the opportunity to attain an excellent education.

Sincerely,

(b)(6)

Bradley Leon  
Executive Director  
Teach For America Tennessee



AN AMERICORPS PROGRAM

 The New Teacher Project

January 16, 2010

To Whom It May Concern,

The New Teacher Project (TNTP) is a strong supporter of ongoing education reforms in the State of Tennessee. If the state is awarded a Race to the Top grant, TNTP plans to invest substantial capacity in assisting the State Education Agency and participating Local Education Agencies in their execution of well-conceived human capital initiatives, including those detailed below.

**Quality teacher pipeline.** TNTP will expand its existing alternate route programs to recruit, select, train, place and certify up to 150 Teaching Fellows per year, clustered in urban districts with appropriate levels of need, autonomy and commitment to the partnership. TNTP may also provide guidance and support for developing new teacher pipelines for underserved rural communities in Tennessee.

**Rigorous Certification.** TNTP's acclaimed Practitioner Teacher Program (PTP) will certify new Teaching Fellows through intensive coursework that is tied to student outcomes. The PTP will provide new teachers with an innovative alternative to traditional university-based certification options, which are often disconnected from the needs of career changers and from the realities of high-need schools. The PTP revolves around TNTP's *Teaching for Results (TfR)* content seminars, which are designed specifically for new teachers making the transition from other backgrounds and working to raise achievement levels in high-need schools.

**Human Capital Policy Analysis.** TNTP will conduct an in-depth analysis of the policies and practices that stand in the way of prioritizing teacher effectiveness in the participating districts. This analysis may incorporate an examination of collectively bargained contracts, Human Resources records, pipeline analyses, and surveys of teachers and principals, depending on the most critical interest. The report will illuminate barriers and point the way toward reforms.

**Performance Management Pilots.** On the heels of the policy changes being driven by RTT to begin to differentiate teacher effectiveness, TNTP will work with district leaders to implement teacher performance management tools in a fair, consistent and rigorous way. We will work with up to 20 school leaders to help them set expectations with their teaching staff, evaluate and differentiate teacher performance, and help provide the feedback and support that teachers need to improve.

All of the above initiatives share the common goal of improving teacher effectiveness for Tennessee's highest-need students. TNTP looks forward to working with the state to implement these projects and provide all students with an excellent education.

Regards,

(b)(6)

Tim Daly  
President, The New Teacher Project

December 15, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

We are writing to express our enthusiastic support for Tennessee's Race to the Top proposal. Race to the Top provides an unprecedented opportunity to create a future that enables all Tennessee students to reach their potential and have choices for college and careers. As school leaders working relentlessly each day to propel our students to high academic achievement levels, we fully embrace and are committed to helping the state achieve the bold reforms outlined in its proposal.

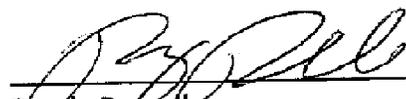
We are tremendously excited about this unique time in our state; we are not just talking about high expectations and success for every student, but pursuing ambitious reforms that will make reaching those goals a reality. Tennessee's focus areas (which align with the US Department of Education's priorities under Race to the Top) include implementing rigorous academic standards and assessments; creating data systems to enable educators to deliver high quality instruction; developing a talented pipeline of teachers and school leaders; and crafting models to turn around our lowest-achieving schools, which, taken together, provide a once in a lifetime chance to transform our education system at the local and statewide level.

Since starting our respective schools, we have continued to serve students who were struggling academically and have elevated them to achievement levels that place them on a trajectory for future success in college and in their careers. That was the intent of Tennessee's charter statute and the mission on which we are squarely focused.

In addition to playing a strong advocacy role for the reform priorities outlined in Tennessee's Race to the Top application, we stand ready to more deeply partner with districts and the state to address the needs of students currently in low performing schools. We believe that work includes sharing best practices and ideas; collaborating with other school leaders, district leaders, and state officials to develop strategies to turn around struggling schools; and creating new schools to offer a rigorous, college preparatory education in neighborhoods with low graduation and college-going rates.

We want to thank you for your leadership in education, and again, express our excitement about the work ahead. Race to the Top is a continuation of the already courageous reforms underway in the state as part of the Tennessee Diploma Project. We look forward to working with you as well as schools, districts, and the state to implement the Tennessee plan once funded.

Sincerely,



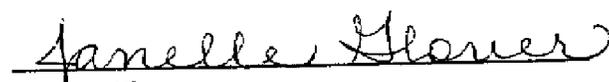
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Randy Dowell  
Principal, KIPP Nashville



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Jeremy Kane  
Executive Director, LEAD Academy



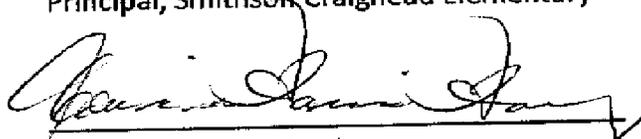
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Janelle Glover  
Principal, Smithson Craighead Elementary



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Dr Reva Buckley  
Principal, Smithson Craighead Middle



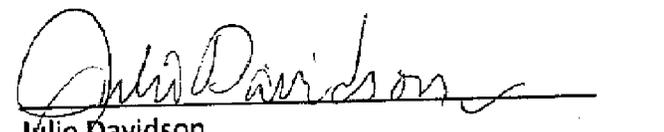
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Dr Edwina Harris Hamby  
Executive Director, Nashville Global Academy



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Marie Daly  
Executive Director, Ivy Academy



---

Julie Davidson  
Principal, Chattanooga Girls Leadership Academy

December 18, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

We are writing to express our enthusiastic support for Tennessee's Race to the Top proposal. Race to the Top provides an unprecedented opportunity to create a future that enables all Tennessee students to reach their potential and have choices for college and careers. As school leaders working relentlessly each day to propel our students to high academic achievement levels, we fully embrace and are committed to helping the state achieve the bold reforms outlined in its proposal.

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Sincerely,



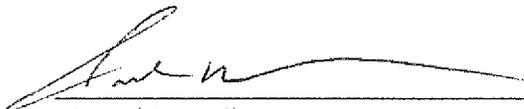
Sheri Catron  
Principal, Circles of Success Charter School



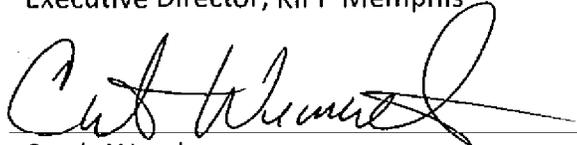
Lemoyne Robinson  
Chancellor, City University Schools



Roblin Webb  
Executive Director, Freedom Preparatory  
Academy Charter School



Jamal McCall  
Executive Director, KIPP Memphis



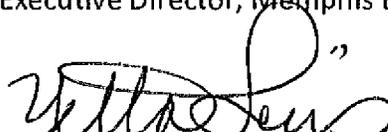
Curtis Weathers  
Executive Director, Memphis Academy of  
Health Sciences



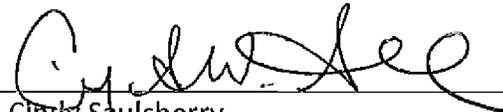
Harold Wingood  
Executive Director, Memphis Academy of  
Science and Engineering



Anthony Anderson  
Executive Director, Memphis Business Academy



Yetta Lewis  
Principal, Power Center Academy



Cindy Saulsberry  
Principal, Promise Academy



NeShante Brown  
Principal, The Soulsville Charter School



Elise Evans  
Executive Director, Southern Avenue Charter  
School



Kia Tate  
Principal, STAR Academy

December 18, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capital  
Nashville, TN 37243-0001

Dear Governor Bredesen,

The Tennessee Charter School Association submits this letter in support of the Race to the Top proposal being made on behalf of Tennessee's public schools.

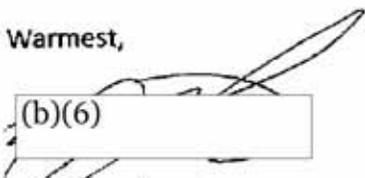
We are very excited about this endeavor and the leadership provided by your office and staff. With the success of other initiatives over the past few years, such as the Diploma Project and raising Tennessee's standards for testing, we are poised and ready to take this next step.

The Race to the Top application is very important to Tennessee's continued improvement on the education front, as it provides the necessary support to nurture our budding reform efforts. The Tennessee Charter School Association looks forward to partnering with the Department of Education, the various school districts and professionals of both the public and private sector in improving student learning and preparing Tennessee's students for college enrollment and beyond.

We especially appreciate the role charter schools will play in this, including working with students and traditional public schools that need additional assistance. Charter schools have added a great deal to the public education sector in Tennessee, and proposing that their participation in the Race to the Top is a solution to many difficulties facing our traditional public schools is both a great challenge and a great opportunity.

On behalf of the Board of Directors for the Tennessee Charter School Association, our 21 current charter schools, over 200 teachers and 5,000 students, we look forward to the work ahead.

Warmest,



(b)(6)

Matt Throckmorton  
Executive Director  
Tennessee Charter School Association



611 Commerce Street, Suite 3030  
Nashville, TN 37203-3742  
615-256-5141 Telephone  
615-256-6726 Fax  
[www.tnchamber.org](http://www.tnchamber.org)

15 January 2010

The Honorable Arne Duncan  
U.S. Secretary of Education  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202

Dear Secretary Duncan,

The Tennessee Chamber of Commerce & Industry and its members have been and continue to be increasingly engaged in ensuring that our state's educational system prepares students for success in today's world. We realize that our state's long-term success and that of our citizens is determined largely on the success of our educational system and the products of that system.

We are writing to express our complete support for and hope that Tennessee will be awarded Race to the Top funding. Tennessee is committed to the innovative delivery of a quality education that allows our students to learn and to grow. With the reforms that are in place – some for two decades, Tennessee is uniquely positioned to take the quality and effectiveness of public education to a higher level – one that meets the needs of today's world and ensures our state and nation will be globally competitive.

Because more than one-quarter of Tennessee's score in its Race to the Top application will be determined by state education reform measures that promote the development of Great Teachers and Leaders, Governor Bredesen, with support from key lawmakers, called a Special Session of the 106<sup>th</sup> Tennessee General Assembly. This Special Session is moving quickly to codify a range of education reform proposals designed to even further improve Tennessee's education pipeline – specifically, improving student performance and graduation rates at both the high school and college levels. Collectively, the proposals are known as the "Tennessee Education Innovation Plan."

Tennessee is well positioned to receive Race to the Top funding and to immediately move further with innovative, accountable, effective and relevant education initiatives that benefit our students, improve our economy and serve as blueprint for education improvement everywhere.

National education reform groups have long viewed Tennessee as a leader in its commitment to sustainable education reform, citing key moves in recent years that include the 2008 adoption of career-ready and college-ready high school standards of the American Diploma Project. The Tennessee Chamber, as the statewide sponsor of the Tennessee Scholars program, strongly supported the enactment of the Tennessee Diploma Project.

Additionally, the Volunteer State is recognized for developing and maintaining one of the nation's oldest and most robust databases for tracking "student growth" or a child's improvement in the classroom year to year, both in terms of achievement and in improvement from prior years. The Volunteer State's database for tracking student growth – The Tennessee Value-Added Assessment System (TVAAS) – has become the blueprint for similar systems in states across the nation.

- To effectively compete in Race to the Top, Tennessee is putting into law key measures including:
- ✓ Establishing an "Achievement School District" that allows the commissioner of the Tennessee Department of Education to intervene in consistently failing schools.
  - ✓ Requiring annual evaluation of teachers and principals.
  - ✓ Creating a 15-member Teacher Evaluation Advisory Committee to recommend guidelines and criteria to the State Board of Education.
  - ✓ Allowing local school systems to create local salary schedules for teachers and principals, with state approval instead of having to utilize a state-mandated schedule.
  - ✓ Removing limitation on the use of TVAAS data to permit it to be used in making decisions on teacher evaluation and tenure.

The Tennessee Chamber, its employers and local chamber members, are actively working to ensure that the Tennessee General Assembly enact these reforms before January 19. With these reforms in law, Tennessee is even more qualified to be a recipient of the Race to the Top funding and to set new standards for education innovation and improvement. We respectfully urge you to consider Tennessee's application for Race to the Top funding and give it strong consideration. We can assure you that our education commitment is strong and that Tennessee, its educational community, its students and their parents, its communities and its employers will all do you proud.

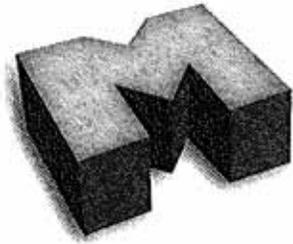
Please do not hesitate to contact us if we can be of further assistance to you or the U.S. Department of Education.

Best wishes,

(b)(6) 

Gregg F. Morton, Chairman  
Tennessee Chamber of Commerce & Industry  
President, AT&T - Tennessee

Deborah K. Woolley  
President  
Tennessee Chamber of Commerce & Industry



**GREATER MEMPHIS CHAMBER**

January 7, 2010

The Honorable Phil Bredesen  
Governor of the State of Tennessee  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

The Greater Memphis Chamber has recognized the importance of education and workforce development in retaining and attracting companies to Memphis that provide good paying jobs for our citizens. Accordingly we have supported your efforts for Early Childhood Education, K-12 reforms and standards, and increasing the college graduation rate for our Tennessee students.

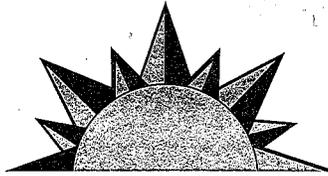
We also believe that the "Race To The Top" initiative and the Tennessee Diploma Project are critical to the success of Tennessee's economy in the future. Maintaining high standards for both student achievement and teacher results are essential components of success in education.

We commend you for your leadership in bringing the coalition of stakeholders together to submit a competitive application for the "Race To The Top" application and pledge our support once it is awarded. We will work with our local and state educational institutions to reinforce their efforts as well as link business support to ensure a truly collaborative and community-wide priority for the reform efforts.

Sincerely,

(b)(6)

John Moore  
President and CEO



memphis TOMORROW

December 23, 2009

The Honorable Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

On behalf of the members of Memphis Tomorrow, I would like to express our full support of your *Race to the Top* proposal for the State of Tennessee.

Memphis Tomorrow is a unique association of chief executive officers of Memphis' largest enterprises, from business to education to health care. Our members are Memphis leaders, but many of them are also leading successful ventures known all around the world. Memphis Tomorrow is driven by one goal of fostering economic prosperity for all who live in our community. Public education is the backbone of any vibrant community and it is our priority agenda item. Specifically, we have played an active role in supporting the recruitment and development of talent utilizing the *Memphis Fast Forward* plan as our roadmap.

Memphis Tomorrow believes that the *Race to the Top* proposal allows Tennessee to dream big, plan intelligently, act courageously and catapult the work of education reform for our communities. Our work is centered on the Memphis community, but we understand that the proposals outlined in *Race to the Top* will have a direct and positive impact on our goals and objectives. As partners in the Bill & Melinda Gates Foundation's Memphis Teacher Effectiveness Initiative, we believe it is our responsibility to commit our experience, lessons, support and relationships from this project to you and the rest of state.

Please accept this letter of support from Memphis Tomorrow as an agreement to support your application and continue to ensure that the proposed reforms are implemented and successful. We applaud your vision and commitment to improving public education for Tennessee, and we stand ready to support you in winning this competitive grant.

Sincerely,

Blair Taylor  
President

Copy: Pitt Hyde, Bill Rhodes, Phil Trenary



## **TENNESSEE BUSINESS ROUNDTABLE**

530 Church Street, Suite 700  
Nashville, TN 37219

December 18, 2009

The Honorable Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

On behalf of the members of the Tennessee Business Roundtable, we enthusiastically support Tennessee's Race to the Top proposal which will build upon the ongoing Tennessee Diploma Project. Under this project, Tennessee has taken one of the most aggressive steps in the nation to upgrade high school standards giving the diploma true value. This proposal positions our state so that all students will have the opportunity to reach their potential and have choices for college and careers.

The commitment of our education stakeholders and all Tennesseans to provide our students with a meaningful education assures that our proposal is bold and innovative. We value this unprecedented opportunity set forth by Race to the Top as it paves the path for our students to be prepared, skilled and ready to meet the challenges of the future. Aligned with the federal guidelines, the Tennessee plan outlines true reform in four targeted areas:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Expanding the use of Tennessee's unique data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The Tennessee Business Roundtable, a bi-partisan statewide organization of CEO's representing many of Tennessee's major corporations, strongly supports the Tennessee Race to the Top proposal and commits to:

- Being strong advocates for the goals and initiatives outlined in the proposal;
- Encouraging the Tennessee business community to become more engaged in the education reform initiatives both at the state and local levels, and
- Continuing to be engaged in a leadership role of ongoing education reform in our state.

The Roundtable has supported and worked to accomplish education reform for the past three decades. We have been a consistent and strong voice on issues including pre-K education, charter schools, higher standards, and effective teachers and school leaders. We are committed to the economic prosperity of our State and will work closely with the business and education communities to implement the plan for Tennessee.

Respectfully,



Jim Powell  
President



Ellen Thornton  
Executive Director



December 16, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

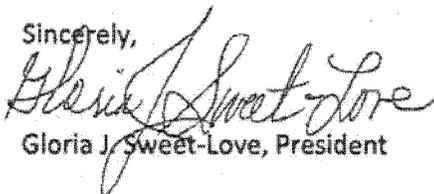
The Tennessee State Conference of the National Association for the Advancement of Colored People and all of its units, who work fervently to insure the social, political, economic and educational equality of rights of all persons, enthusiastically supports the Tennessee Race to the Top proposal and commit to:

*27 Brentshire Square, Suite A Jackson, TN 38305  
Phone: (731) 660-5580 Fax (731) 660-5002 Email: [ttnaACP3@bellsouth.net](mailto:ttnaACP3@bellsouth.net)*

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout the state
- Providing in-kind and contracted services referenced in the proposal and will through our Excellence & Equity in Education and Back-To-School Stay-In-School programs work to accomplish the following objectives with RTTT.
- Increase educational expectations of students and their families
- Improve and enhance the academic preparation of students to improve high school graduation rates, college enrollment, retention and completion by students of color.
- Provide mentoring and support by community leaders to challenge and support students.
- Train and enlighten parents about opportunities available to students and how to access these opportunities.

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement. Our Back-To-School Stay-In-School Program and EXCEL(Excellence and Equity in Education) programs are designed to support programs such as RTTT. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,



Gloria J. Sweet-Love, President

*27 Brentshire Square, Suite A Jackson, TN 38305  
Phone: (731) 660-5580 Fax (731) 660-5002 Email: [innaacp3@bellsouth.net](mailto:innaacp3@bellsouth.net)*



December 23, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

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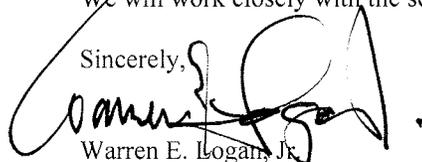
- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

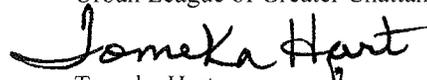
The TN Urban League Affiliates (TULA – Chattanooga, Knoxville, Memphis, Nashville), enthusiastically supports the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout the state in our respective cities
- Providing high quality after-school tutorial assistance to the lowest performing schools in the areas of reading, math and science. This supports the assurance of intensive support and effective interventions for the lowest performing schools.

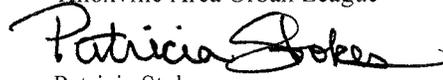
We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement as both of the Supplemental Education Service providers as well as, 21<sup>st</sup> Century Community Learning Centers and facilitators of parent engagement. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

  
Warren E. Logan, Jr.  
President/CEO  
Urban League of Greater Chattanooga

  
Tomeka Hart  
President/CEO  
Memphis Area Urban League

  
Phyllis Y. Nichols  
President/CEO  
Knoxville Area Urban League

  
Patricia Stokes  
President/CEO  
Urban League of Middle TN



December 23, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

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Sincerely,

A handwritten signature in black ink, appearing to read "Warren E. Logan, Jr.", written over a large, stylized flourish.

Warren E. Logan, Jr.  
President/CEO  
Urban League of Greater Chattanooga

A handwritten signature in black ink, appearing to read "Tomeka Hart", written over a large, stylized flourish.

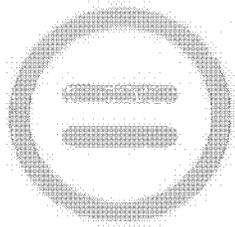
Tomeka Hart  
President/CEO  
Memphis Area Urban League

A handwritten signature in black ink, appearing to read "Phyllis Y. Nichols", written over a large, stylized flourish.

Phyllis Y. Nichols  
President/CEO  
Knoxville Area Urban League

A handwritten signature in black ink, appearing to read "Patricia Stokes", written over a large, stylized flourish.

Patricia Stokes  
President/CEO  
Urban League of Middle TN



# Memphis Urban League

413 NORTH CLEVELAND STREET • MEMPHIS, TENNESSEE 38104 • (901) 272-2491 • [www.mphsurbanleague.org](http://www.mphsurbanleague.org)

*Empowering Communities.  
Changing Lives.*



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*President/CEO*

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December 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

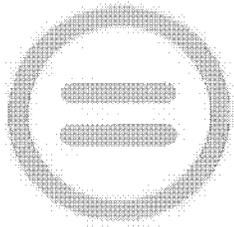
Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project, and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

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- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The Memphis Urban League is an affiliate of the National Urban League. We have provided workforce development and supplemental education services to the Memphis community since 1943. As an organization dedicated to ensuring our students are college and career ready, we enthusiastically support the Tennessee Race to the Top proposal and commit to:

Memphis Urban League ([www.mphsurbanleague.org](http://www.mphsurbanleague.org)) - Established in 1943, The Memphis Urban League is an affiliate of the National Urban League, this nation's oldest and largest community-based movement devoted to empowering African Americans and other disadvantaged groups to enter the economic and social mainstream. The Memphis Urban League fulfills its mission through its workforce development, job placement and supplemental educational services programs.



# Memphis Urban League

Empowering Communities.  
Changing Lives.



413 NORTH CLEVELAND STREET • MEMPHIS, TENNESSEE 38104 • (901) 272-2491 • [www.mphisurbanleague.org](http://www.mphisurbanleague.org)

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*Secretary*

**TOMEKA R. HART, JD, MBA**  
*President/CEO*

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G. Douglas Lindgren  
Molly P. Long  
Joanne P. Russ

- Publicity advocating for the proposal and its goals
- Assisting in providing positive conditions for reform in the Memphis community
- Aligning our youth programs with the guidelines, standards and goals established by the State of Tennessee

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement. Our education programs are designed to ensure students are college and career ready. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

Tomeka Hart  
President & CEO

December 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001



Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

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- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

Organized in 1911, the Tennessee PTA is an all volunteer association whose mission is to advocate for the children and their families of Tennessee. We enthusiastically support the Tennessee Race to the Top proposal and:

- We will publicly advocate for the proposal and its goals
- Assist in providing positive conditions for reform throughout the state
- Provide information and communication to all PTA members and other parent groups across the state

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

Kathy Patty

Kathy Patty, President  
Tennessee PTA



December 21, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Amidst an environment of intense focus on education reform nationally and in Tennessee, Stand for Children stands ready to be the leading advocate for Tennessee's Race to the Top proposal. As an innovative, grassroots child advocacy organization, our mission is to use the power of grassroots action to help all children get the excellent public education and strong support they need to thrive.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

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- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools.

You have very accurately pinpointed teacher effectiveness as the single most important factor in creating successful schools. Stand for Children embraces that position and will be centering its advocacy work in Tennessee on that principle. Specifically, our Teacher Task Force decided on the following principals this past summer for policy actions that can provide a strong framework to boost teacher effectiveness:

**Provide a stronger teacher evaluation tool and process to help identify teacher strength and weaknesses.** This can guide professional development, be an essential ingredient in strategic teacher assignment, and guide innovative compensation systems that reward teachers for performance and/or working in hard to staff schools and subject areas.

**Make the tenure decision more meaningful.** Teachers in Tennessee are typically considered for tenure at the end of their third year of employment. However, our state law bars the use of student academic growth until three years of complete data are available. As a practical matter, that means this data is unavailable to be used in the evaluation that immediately precedes and informs the tenure recommendation. State law should be changed to remove this obstacle.

**Open the door for new, modern teacher salary structures that are not grounded solely on teacher experience and training.** While Tennessee law authorizes local boards of education to establish “differentiated pay” scales, these must be overlaid on the traditional training and experience based salary system. A project like the Teacher Effectiveness Initiative that is being developed in the Memphis City Schools is hamstrung by this requirement. A change in state statute is required to allow implementation of professional “tiered” compensation systems where teachers are rewarded for performance, skills, and responsibilities irrespective of their years of service.

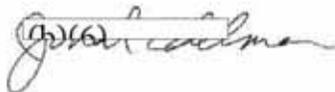
**Develop a protocol for assessing teacher working conditions and teacher satisfaction.** All teachers want to feel valued and have their voices heard. Establishing a mechanism to do this on a statewide basis is not costly and can actually help drive increases in student achievement.

Stand for Children was honored to have worked with your administration in 2005, as a leading advocate and legislative ally for the “Voluntary Pre-k for Tennessee Act”. We continue to support and advocate for the **high quality pre-k programs** that currently exist and will continue to be a voice in expanding meaningful early education opportunities across the state. This nationally recognized landmark program for Tennessee has provided thousands of children the skills to begin school ready to learn.

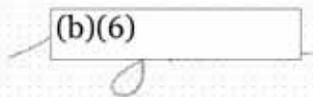
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Stand for Children enthusiastically supports the Tennessee Race to the Top proposal and commits to publically advocating for the proposal and its goals as well as assisting in providing positive conditions for reform throughout the state and in local communities. We are committed to our state’s future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,



Jonah Edelman  
Chief Executive Officer



Meg Ansara  
Chief Operating Officer

CC: Francie Hunt - Nashville Co-Director  
Emily Ogden - Nashville Co-Director  
Kenya Bradshaw- Memphis Director

January 11, 2010

Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

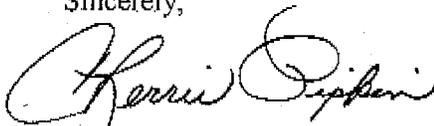
On behalf of its membership, the Steering Committee of the Tennessee Supervisors' Study Council strongly supports the initiatives outlined in Tennessee's Race to the Top application. Through its nine regional councils, the Supervisors' Study Council represents district-level instructional supervisors throughout the state. Our purposes are to promote professional growth among Tennessee's educators, to participate in the development of innovative instructional practices, and to work jointly with the Department of Education to improve instructional programs.

In particular, we support Tennessee's plan to:

- Support the transition to enhanced standards and high quality assessments,
- Create and use enhanced data systems to support instructional improvement and professional development,
- Ensure great teachers and leaders by measuring effectiveness by performance, improving existing evaluation systems, and using evaluations to inform professional development, tenure decisions, and decisions regarding compensation, promotion, and retention, and
- Implementing bold measures to turn around the lowest performing schools.

We applaud the efforts of you, Governor Bredesen, our Tennessee Legislators, and the Tennessee Department of Education to secure Race to the Top funding that will facilitate our improvement efforts. The Tennessee Supervisors' Study Council looks forward to working with our leaders in this effort.

Sincerely,



Cherrie Pipkin  
Chairperson  
Tennessee Supervisors' Study Council



The Mike Curb Center For Free Enterprise  
130 Powell Place, Nashville, TN 37204  
Phone 615 385 9500 Fax 615 297 8514  
www.janash.com



December 21, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

Junior Achievement of Middle Tennessee works daily to help prepare young people to be successful adults. Teaching workforce readiness and financial literacy skills to students in kindergarten through twelfth grade, JA is connecting lessons in the classroom with real-world applications. JA of Middle Tennessee and all JA offices in the state enthusiastically support of the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout the state
- Providing trained volunteers, curriculum, and experiential learning opportunities which align with the new state standards and prepare our young people to successfully compete in a global economy
- Connecting business and community leaders to classrooms as mentors for students; these volunteers will serve as living examples of what it takes to be successful

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement of 21<sup>st</sup> Century skills. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

(b)(6)

Trent Klingensmith  
President

With JA, no one's too young to experience their first year in business.



# Volunteer Tennessee



December 9, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

First, I would like to thank you for your support in developing our State Plan, which sets out the strategic direction for Volunteer Tennessee over the next three years. A key component of this State Plan involves improving the lives of young people in Tennessee through the expansion of service-learning in both school- and community-based settings. Rigorous evaluations of service-learning here in Tennessee and nationally show that this methodology achieves many outcomes that align perfectly with the goals of Race to the Top, such as reduced truancy, improved academic performance and increased connectedness of students to their schools.

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. It was also the goal of the 2009 Moving Forward Graduation Summit that Volunteer Tennessee hosted in partnership with corporate partners AT&T and State Farm; your Office of State Planning and Policy; the Tennessee Department of Education, Department of Labor and Work Force Development, and Higher Education Commission; and local non-profits. This Summit was a result of a funding request from your office to America's Promise Alliance, which is a leading voice nationally for dropout prevention. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and

---

WILLIAM R. SNODGRASS TENNESSEE TOWER · 312 ROSA L. PARKS AVENUE, 12<sup>TH</sup> FLOOR · NASHVILLE, TENNESSEE 37243-1102

PHONE: VOICE/TDD (615) 532-9250 TOLL FREE (800) 404-8183 · FAX (615) 532-6950

WWW.VOLUNTEER.TENNESSEE.NET

THE MISSION OF VOLUNTEER TENNESSEE IS TO ENCOURAGE VOLUNTEERISM AND COMMUNITY SERVICE

- Turning around our lowest-achieving schools.

As Tennessee's commission on service and volunteerism, Volunteer Tennessee enthusiastically supports the Tennessee Race to the Top proposal and commits to:

- Publicly advocating for the proposal and its goals;
- Assisting in providing positive conditions for reform throughout the state;
- Exploring ways to align Tennessee's approximately \$4 million in annual AmeriCorps and Learn and Serve America funding with the goals of Race to the Top;
- Providing support for teacher training in service-learning; and
- Encouraging local volunteers to support the efforts of Race to the Top.

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement through service-learning and dropout prevention. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,



(b)(6)

Jim Snell  
Executive Director



Chartered 1975

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Executive Director

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Email: [toss@k12tn.net](mailto:toss@k12tn.net)

Website: [www.tnsupts.org](http://www.tnsupts.org)

December 17, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is make sure its application is both bold and uniquely Tennessean. This is an once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The Tennessee Organization of School Superintendent's enthusiastically support the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions to reform throughout the state
- Providing a network of communication with stakeholders referenced in the proposal to accomplish its guiding principles

We have worked in the past to support education practices and reform, specifically on issues designed to support student achievement. We are committed to our state's future. We will work closely with the schools, districts, and state to implement the Tennessee plan once funded.

Sincerely,

Keith D. Brewer, Ed.D.  
Executive Director  
Tennessee Organization of School Superintendents

# TSBA

Tennessee School Boards Association

December 16, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports the necessary changes needed to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennesseean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The Tennessee School Boards Association, the organization and representative agency of school boards in Tennessee, enthusiastically supports the Tennessee Race to the Top proposal and commits to:

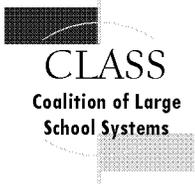
- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout the state

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

(b)(6)

Tammy Grisson  
Executive Director



November 20, 2009

The Honorable Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243-0001

Member Districts:  
Hamilton County  
Knox County  
Memphis City  
Metropolitan Nashville  
Shelby County

Dear Governor Bredesen:

We are writing on behalf of the "Coalition of Large School Systems," or CLASS. We are an organization comprised of the five largest school systems in the state (Metro Nashville Public Schools, Hamilton County Schools, Knox County Schools, Memphis City Schools and Shelby County Schools), and aggregately we educate more than one-third of the state's K-12 student population.

We believe that the five school systems represented by the Coalition share similar challenges, unique opportunities and fundamental characteristics that allow us to serve as a powerful proof point and platform for our bold and transformational initiatives and ideas for reform. Originally we organized around pursuing improvements in the Basic Education Program (BEP) funding formula, but our directors and school board leadership have broadened the mission to include collective pursuit of education reform efforts that we believe can significantly impact statewide education performance.

Because of your administration's work around pre-kindergarten, implementation of higher standards, expansion of the traditional teacher pipeline, funding improvements and other factors such as Tennessee's wealth of student academic progress data, we believe Tennessee is now well positioned to be a winner in the Race to the Top federal education funding competition. We think in this time of unprecedented opportunities that our school systems offer a platform to bring to life state strategies reflective of the "four assurances" required in the Race to the Top proposals: teacher effectiveness and leadership, standards and assessments, use of longitudinal data, and turning around low performing schools as well as unique and systemic initiatives focused around STEM development and high quality pre-kindergarten expansion.

Our individual districts are already engaged in this progressive Race to the Top agenda through work such as the "Teacher Effectiveness Initiative" in Memphis City Schools, which is a project to strengthen teacher evaluations and implement innovative compensation systems; an unprecedented partnership with Bill Sanders in Metro Nashville to develop a predictive analysis of every student using Tennessee Value Added Assessment System (TVAAS) data to help drive more effective instruction; the continuation and expansion of the Benwood Initiative; and the TAP project in Knox County.

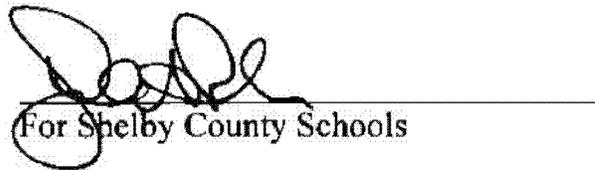
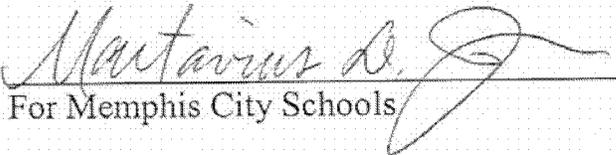
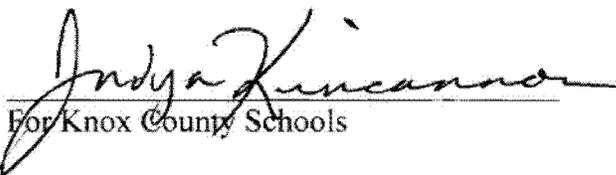
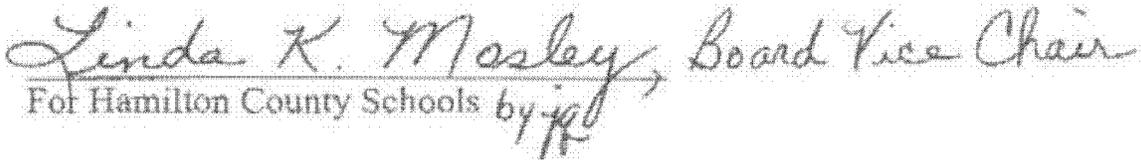
Chair:  
Metropolitan Nashville  
Public Schools  
2601 Bransford Avenue  
Nashville, TN 37204  
615.259-8444

To that end, we would respectfully request an opportunity to meet with the administration's team that is crafting the Race to the Top application and explore ways the state could leverage our collective strength to improve Tennessee's position in the competition. Thank you for your consideration.

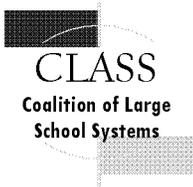
Sincerely,



**For Metro Nashville Public Schools**



- cc: John Morgan, Deputy to the Governor  
Tim Webb, Commissioner of Education  
Will Pinkston, Senior Advisor to the Governor  
Margaret Horn, Senior Management Consultant to the Governor



December 28, 2009

Member Districts:  
Hamilton County  
Knox County  
Memphis City  
Metropolitan Nashville  
Shelby County

The Honorable Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

I have the distinct honor and privilege, as chairman of the Coalition of Large School Systems (CLASS), to express our support for the State of Tennessee's application for *Race to the Top*. We commit to you our collective experiences, insights, relationships and resources in this pursuit. We also assure you that we would like to serve as a platform for your bold vision and transformational initiatives.

As a coalition of the five largest school districts in Tennessee, we are writing to follow on our letter of November 20, 2009 (a copy of which is attached). In that letter, we expressed our deep and unified support for the transformational policies and practices that we know will be highlighted in Tennessee's *Race to the Top* proposal. More important than our stated support is our commitment to put into practice the reforms necessary to build a culture of educational achievement and excellence. In view of the number of students we educate, our collective strengths can leverage the opportunity to make a significant impact on the state as a whole.

Each of our school districts is committed to embracing the reform agenda highlighted in our earlier letter and now being embodied in the *Race to the Top* proposal – focusing on teacher effectiveness and school leadership; implementing higher standards and improved assessments; using our unique data system to drive specific professional development strategies; and working to find effective turnaround models. We also believe that our school systems can play a leadership role in the STEM partnership with Battelle. The *Race to the Top* process is providing the opportunity for all of us to determine how we can collectively make a much more significant, systemic impact on student achievement.

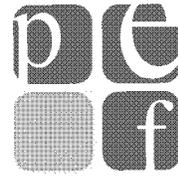
We are committed to doing whatever is necessary to improve the future for Tennessee's children. We will work closely with the State to continue implementation of these policies and practices contained in the Tennessee plan.

Sincerely,

A handwritten signature in dark ink, appearing to read "Mark North", is written over a light-colored background.

Mark North  
Chairman, Coalition of Large School Systems

Chair:  
Metropolitan Nashville  
Public Schools  
2601 Bransford Avenue  
Nashville, TN 37204  
615.259-8444



Public Education Foundation  
100 East Tenth Street, Suite 500  
Chattanooga, TN 37402

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423.265.9832 fax

[www.pefchattanooga.org](http://www.pefchattanooga.org)

## Partners For Strong Schools

December 27, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, Tennessee 37243

Dear Governor Bredesen,

We are writing this letter to document Public Education Foundation's strong endorsement of Tennessee's Race to the Top proposal. Race to the Top provides our state with an extraordinary opportunity to bring about transformational change and dramatic improvement to our public schools, and we will do whatever we can to support the state's proposal and help with the implementation of the reforms.

We are extremely encouraged by the four specific areas for focused reform:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy
- Building data systems that measure student growth and success and inform teachers and principals about how they can improve instruction
- Recruiting, developing, rewarding, and retaining effective teachers, especially where they are needed most; and
- Turning around our lowest performing schools.

There is no doubt that these are areas that are critical to improving student achievement and also areas where Tennessee is well positioned to make significant progress, thanks to your leadership in the Tennessee Diploma Project and increasing the knowledge and skills of our teachers, the state's long-standing investment in TVAAS, and the demonstrated success several cities, including Chattanooga, have had in transforming our lowest performing schools.

Public Education Foundation has made a commitment to and an investment in all four of these areas, and we pledge to continue this work. As you know, our Benwood Schools Initiative, funded by the Chattanooga-based Benwood Foundation, transformed our city's nine lowest performing elementary schools and in so doing earned national recognition from PBS's NewsHour and Education Sector, the national, independent research firm. Our work with all of Hamilton County's high schools, funded by Carnegie Corporation of New York, inspired our district in 2004 to raise graduation standards for all

students and this has yielded dramatic gains in the number of students who have graduated from high school and gone on to college. This work has been exceedingly difficult and made possible only because of private, philanthropic support that cannot be sustained forever. Consequently, we avidly support the policy changes that the state's Race to the Top proposal will enable. We believe that these policy changes will institutionalize critical reforms that will improve how we educate our children and select, support, and compensate our teachers and principals.

Public Education Foundation's board and staff pledge to advocate for these reforms and to collaborate with Hamilton County schools, districts across Tennessee, and your administration to ensure that this work is implemented in ways that benefit our children and our state.

Sincerely,

(b)(6)

Daniel D. Challener, Ph.D.  
President

James L. E. Hill  
Chair of Board of Directors



*Providing a catalyst for educational success.*

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

December 16, 2009

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The Public School Forum of East Tennessee, whose mission is to be a catalyst, facilitator and advocate for helping our region achieve an educated public that is second to none, enthusiastically supports the Tennessee Race to the Top proposal and:

- We will publicly advocate for the proposal and its goals
- Assist in providing positive conditions for reform throughout the state
- Provide financial and other support to the various aspects of the reform efforts

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

*Gordon Fee*  
Chairman

*Oliver S. Thomas*  
Vice-Chairman

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625 Market Street, Suite 1400  
Knoxville, Tennessee 37902  
865-862-5255 phone  
865-862-5254 fax

[www.publicschoolforum.org](http://www.publicschoolforum.org)



January 14, 2010

Secretary Arne Duncan  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202

Dear Secretary Duncan,

In my 12 years of experience in politics, particularly while serving as U.S. Senate Majority Leader, I learned that success is often about taking advantage of the moments when the stars align around a certain goal. The stars are aligned for making significant improvements to Tennessee's education system, and I write with the strongest support for Tennessee's Race to the Top application, as I believe the success of this application is critical to seizing this unique moment in Tennessee's history.

For the past year, I have chaired the Tennessee State Collaborative on Reforming Education (SCORE) with the goal of making Tennessee schools #1 in the Southeast within five years. Led by a steering committee of top education, political, and business leaders from across Tennessee, SCORE has held 72 town hall meetings across the state, hosted eight statewide meetings with leading education reformers from around the country, and conducted hundreds of one-on-one interviews.

Last July, SCORE released a report entitled "The State of Education in Tennessee" laying out the strengths and weaknesses of Tennessee's education system, and last October we released our final report entitled "A Roadmap to Success: A Plan to Make Tennessee Schools #1 in the Southeast Within Five Years." Over 300 key education stakeholders offered feedback on this final report, which represents a bold consensus among the state's key education stakeholders about a detailed plan for improving Tennessee's education system. This plan is perfectly aligned with Tennessee's Race to the Top application, as I will discuss in more detail below.

In addition to Tennessee SCORE, several other factors are aligning to create a truly unique moment for education reform in Tennessee:

- Governor Bredesen's Tennessee Diploma Project, which fully went into effect this school year, has raised the state's standards to nationally competitive levels
- The Bill & Melinda Gates Foundation has invested \$90 million in Memphis City Schools to improve teacher effectiveness
- Nationally renowned non-profits such as Teach For America, The New Teacher Project, and KIPP are expanding their presence in the state, and a locally-grown charter school incubator has recently been launched

- The Tennessee Value-Added Assessment System (TVAAS) provides Tennessee with some of the oldest and most reliable value-added data in the nation
- The Tennessee Education Association has a very progressive leadership team that recently approved a proposal to base teacher evaluations 50% on student growth, including 35% on TVAAS scores

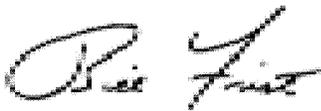
Tennessee's Race to the Top application fully leverages each of these advantages. For example, Tennessee's application builds on SCORE's final report, which is a consensus that was built between all the key education stakeholders in the state over the course of an entire year about how to improve the state's education system. Specifically, seven of the eight provisions in the legislative package currently being considered by the Tennessee General Assembly to further the state's Race to the Top application represent recommendations from SCORE's final report.

Tennessee's Race to the Top application also leverages existing national non-profits who have a strong presence in the state (e.g., TFA, TNTP, KIPP) by proposing these non-profits help turnaround the state's lowest performing schools through the creation of a recovery school district. The application also takes advantage of our state's rich TVAAS data by connecting this data to principal and teacher evaluations and implementing professional development to ensure this data is used to improve classroom instruction. Finally, the application takes the Tennessee Diploma Project to the logical next step by committing Tennessee to adopting the Common Core Standards.

Perhaps most importantly, Tennessee has on-the-ground capacity to successfully implement its Race to the Top application. In addition to the presence of the national non-profits mentioned above, SCORE is in the process of launching a five-year, \$20 million privately funded effort to implement its final report. This effort includes a statewide advocacy campaign, statewide teacher effectiveness and leadership initiatives that are well aligned with the state's Race to the Top application, and several "quick win" projects. We believe this on-the-ground capacity will be critical to helping the state successfully implement its Race to the Top application.

The stars have clearly aligned in Tennessee to create a once-in-a-lifetime opportunity to improve our schools. Receiving Race to the Top funds would put this effort over the edge, and it is for this reason I hope the Department will give Tennessee's application the most favorable consideration.

With warmest regards,

A handwritten signature in black ink, appearing to read "Bill Frist". The signature is fluid and cursive, with the first name "Bill" and last name "Frist" clearly distinguishable.

William H. Frist, M.D.  
Chairman, Tennessee SCORE



December 17, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

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Nashville State Community College

Dear Governor Bredesen:

All across the state of Tennessee, community members and students are mobilizing to achieve the goals you have established through the Tennessee Diploma Project. The Race to the Top funds will provide an opportunity to accomplish this vision and to channel the work of Tennessee's substantial educational assets toward a common goal. The Tennessee Race to the Top proposal has been crafted to take full advantage of the current momentum in our state.

Alignment Nashville is a system and structure that aligns community organizations to support public education, targeting the lowest-performing schools. More than 18 collaborative initiatives, involving over 300 organizations, have been developed since the organization began five years ago. Most of the initiatives are already starting to show positive and dramatic results. By partnering with the school district and other community organizations, we are working together to solve the dropout crisis. Alignment recently hosted two local America's Promise Summits in conjunction with the state America's Promise Summits convened by the Governor's office.

Alignment is scalable; instead of creating new programs, we strive to increase the capacity of existing organizations so they can achieve their mission more effectively. Alignment Nashville has been recognized by other cities as a successful model of collaboration. In fact, we are currently helping to establish alignment networks in other communities.

One important initiative, *Art to STEM*, aims to increase the pipeline of students who will enter STEM career academies in the newly re-designed high schools in Nashville. *Art to STEM* targets girls in under-performing middle schools. By capturing the girls' attention through their interest in creative pursuits, community organizations such as the Girl Scouts, the Adventure Science Center, PENCIL Foundation, and Tennessee Technological University partner with teachers and local businesses to help the girls discover STEM careers of the future, filled with opportunities for creative innovation. *Art to STEM* is funded by the National Science Foundation (NSF). As required by the NSF grant, significant data and analysis as well as promising practices will be available within the next two years. The leadership team of *Art to STEM* will support the development of the STEM asset map through the Race to the Top initiative and will work closely with the state to ensure the projects' resources are utilized as needed.

Alignment Nashville strongly supports the state's proposal for Race to the Top and is ready to commit to:

- Providing resources and services as outlined in the proposal
- Publicly advocating for the proposal and its goals

We will work closely with the school district in Nashville and with the state to ensure that Tennessee "Reaches the Top" in education.

Sincerely,

Sydney Rogers  
Executive Director



RICHARD G. RHODA  
*Executive Director*

STATE OF TENNESSEE  
**HIGHER EDUCATION COMMISSION**  
PARKWAY TOWERS, SUITE 1900  
NASHVILLE, TENNESSEE 37243-0830  
(615) 741-3605  
FAX: (615) 741-6230

PHIL BREDESEN  
*Governor*

December 16, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The Tennessee Higher Education Commission, the coordinating agency for all public higher education in Tennessee, enthusiastically supports the Tennessee Race to the Top proposal and commits to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout the state
- Strengthening teacher and school leader preparation programs in the state's universities

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement. Tennessee's universities and teacher preparation programs will work collaboratively with the Tennessee Department of Education in providing professional development for K-12 teachers and school leaders that will focus on student achievement and the measurement of it. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard G. Rhoda".

Richard G. Rhoda  
Executive Director



THE UNIVERSITY of TENNESSEE

KNOXVILLE, CHATTANOOGA, MARTIN, TULLAHOMA, MEMPHIS

PRESIDENT'S OFFICE

December 16, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

I am pleased to report to you that throughout the University of Tennessee System, our campus leadership has enthusiastically embraced the concept of Race to the Top as an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers.

You will be receiving individual letters from our Chancellors at UT Knoxville, UT Chattanooga and UT Martin, outlining specifics of their programs and committing support from their campuses. You will find that these programs represent bold reform and support the effort to accelerate educational achievement and excellence.

The University of Tennessee, as the flagship, premiere research institution of the state, is committed to leadership in this once-in-a-lifetime opportunity to bring about change. You may count on us to publicly advocate for the Race to the Top proposal and its goals and to assist in promoting reform throughout the state.

Thank you for your leadership in this effort. We look forward to working closely with all elements of the state's education community.

Sincerely,

Jan F. Simek  
Interim President

c: Chancellor Roger Brown  
Chancellor Jimmy Cheek  
Chancellor Tom Rakes

December 16, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

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- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The University of Tennessee at Chattanooga, with the UTC STEM Challenger Center, the College of Health, Education and Professional Studies, and the College of Arts & Sciences, enthusiastically supports the Tennessee Race to the Top proposal and commitment to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for educational reform through the Hamilton County and the surrounding area

- Providing candidates training in working with assessment information to design instruction which will meet students' needs and help them reach goals, particularly in the areas of mathematics and science.

Informed by the work of the STEM Challenger Center, UTC and their education programs have a well-documented record of collaborating with schools systems to provide quality professional development in mathematics and science, to assist low-performing schools in making significant progress toward goals, and to insure that educators are prepared to work with children from diverse backgrounds. This high quality support is evidenced though the number of THEC grants, a strong teacher professional development connection, and partnerships with the local school systems. In addition, an innovative Degree +3 program affords education candidates training in working with assessment information to design instruction which will meet K-12 students' needs and help them reach goals. We will work closely with the schools, districts and state to implement the Tennessee plan, once funded.

Sincerely,



Roger G. Brown  
Chancellor

RGB:bv

c: Phil Oldham  
Mary Tanner

December 17, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

The University of Tennessee, Knoxville, believes that Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The University of Tennessee, Knoxville will be an active partner in developing the Race to the Top proposal, as a partner with the State of Tennessee and Battelle to develop STEM education.

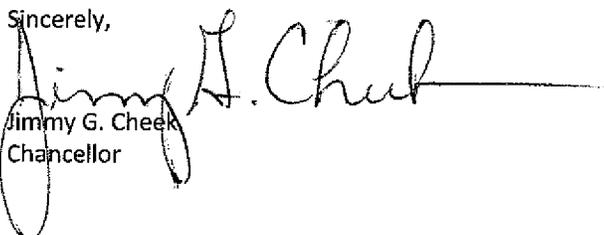
The University of Tennessee, Knoxville and the Oak Ridge National Lab, managed by UT/Battelle, are working on many initiatives to improve STEM education, including a UTK/ORNL Distinguished Fellowship focusing on material sciences, nuclear sciences, computational sciences and engineering.

UTK has recently received a VolsTeach grant of \$1.8 Million to fund a new program to improve the quantity and quality of mathematics and science teachers.

All of these efforts focus on higher expectations, increased college graduation rates and arming our citizens with stronger skills to compete in the global economy.

We will publicly advocate for the proposal and its goals and assist in providing positive conditions for reform throughout the state. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,



Jimmy G. Cheek  
Chancellor

December 15, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and optimize their choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and support necessary to realize a culture of educational achievement and excellence; it also builds upon our state's substantial educational assets and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding and retaining effective teachers and principals, especially where they are needed most; and,
- Turning around our lowest-achieving schools.

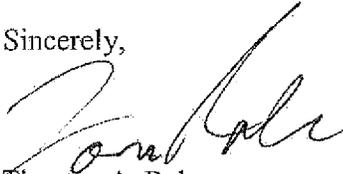
The University of Tennessee at Martin enthusiastically supports the Tennessee Race to the Top proposal and commits to the following:

- Publicly advocating for the proposal and its goals;
- Assisting in providing positive conditions for reform, particularly throughout West Tennessee;
- Providing professional development for school districts in the STEM disciplines through the Northwest Tennessee STEM Center for Learning, which is housed on our campus;
- Recruiting science teachers who can be prepared through the transitional licensure route to provide effective instruction at high-need schools across the state; and,
- Preparing effective principals through a redesigned leadership program focusing on the need for an understanding of curriculum and assessment, particularly as they relate to student learning.

Governor Phil Bredesen  
December 15, 2009  
Page 2

UT Martin has a rich history of supporting education practice and reform, specifically on issues related to student achievement. We are preparing for the fourth cohort in our Transition to Teaching grant, and we have added a physics add-on endorsement to respond to the Tennessee Diploma Project-driven need for more physics teachers. We are committed to our state's future, and we look forward to working closely with the schools and the State to implement the Tennessee plan once funded.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Rakes", written in a cursive style.

Thomas A. Rakes  
Chancellor



## TENNESSEE STATE UNIVERSITY

3500 JOHN A. MERRITT BOULEVARD  
NASHVILLE, TENNESSEE 37209-1561

OFFICE OF  
THE PRESIDENT

Thursday, December 17, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Let me start by commending you on your history of dedication to, and insistence on quality education for the citizens of the state of Tennessee. I also need to personally thank you for your support of the Strengthening Instruction in Tennessee Elementary Schools: Focus on Mathematics (SITES-M) project which has been administered by Tennessee State University for the last three years. The Race to the Top provides an unprecedented opportunity to create a future that will allow all Tennessee students to reach their potential and have choices for college and careers. It also provides an opportunity for the highly successful SITES-M project to be expanded throughout the state.

The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms. The only way Tennessee can truly position itself for victory is to make sure that its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas which are aligned with the federal guidelines:

1. Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
2. Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
3. Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
4. Turning around our lowest-achieving schools

Tennessee State University enthusiastically supports the Tennessee Race to the Top proposal and commits to:

1. Publically advocating for the proposal and its goals;
2. Assisting in providing positive conditions for reform throughout the state of Tennessee;
3. Providing contracted services and funding referenced in the proposal to accomplish the goals of:

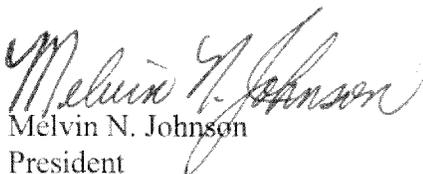
- Increasing student achievement in mathematics, as reported by the NAEP and the assessments required under the ESEA;
- Decreasing achievement gaps between subgroups in mathematics, as reported by the NAEP and the assessments required under the ESEA.

Tennessee State University proposes to actualize these goals by expansion of the SITES-M project. Specific elements include:

1. Creating a Statewide umbrella organization whose focus is on identifying, sharing, and providing training in best practices on elementary mathematics;
2. Collecting and analyzing data, and making recommendations for program modifications;
3. Hosting an annual two-week summer professional development institute for in-service teachers that focuses on strengthening content knowledge of mathematics as well as knowledge of mathematics for teaching;
4. Coordinating Saturday mathematics workshop which will serve to support and extend the learning from the summer professional development institutes;
5. Training in and implementation of Keeping Learning on Track (KLT) assessments for learning, as well as implementing Teacher Learning Communities (TLCs);
6. Training in the use of Educational Testing Service's standardized observation protocols;
7. Creating TSU Mathematics Challenges – age and grade-appropriate formative assessments for K-4 students, aligned with the newly revised state mathematics standards;
8. Supporting a SITES-M website at Tennessee State University  
<http://www.tnstate.edu/sitesm/>;
9. Reviewing and strengthening of curricula and course requirements in colleges and universities that prepare pre-service teachers of elementary school students;
10. Increasing community engagement through activities such as Parent University and Community Math Night.

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement. We are committed to our state's future and will work closely with the schools, districts, and state to implement the Tennessee plan once funded.

Sincerely,

  
Melvin N. Johnson  
President

MNJ/sw



Tennessee Tech  
UNIVERSITY

Office of the President

Box 5007 • Cookeville, TN 38505-0001 • (931) 372-3241 • Fax (931) 372-6332

December 17, 2009

The Honorable Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

I am delighted to indicate Tennessee Technological University's enthusiastic support for our state's Race to the Top proposal. Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

Tennessee Technological University, a comprehensive four-year University governed by the Tennessee Board of Regents, enthusiastically supports the Tennessee Race to the Top proposal and commits to:

- Publicly advocating for the proposal and its goals;
- Assisting in providing positive conditions for educational reform throughout the state and specifically in the economically disadvantaged Upper Cumberland region;
- Anchoring around the University's Oakley STEM Center, and partnering with Battelle, improving teaching and learning of STEM topics through professional development for teachers and providing enrichment experiences for P-16 students (through outreach and rigorous research in instructional design and curriculum development relating to STEM topics).

We have worked in the past to implement and support education practice and reform, specifically on issues designed to improve student achievement. TTU is known for excellence in teaching and research, and is listed as one of "America's 100 Best College Buys." We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded, and pledge our enthusiastic support for this project.

Sincerely,

Robert R. Bell, President



THE UNIVERSITY OF  
**MEMPHIS**®

Office of the President

341 Administration Bldg  
Memphis, Tennessee 38152-3370

Office: 901.678.2234  
Fax: 901.678.5065

[www.memphis.edu](http://www.memphis.edu)

December 18, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

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- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

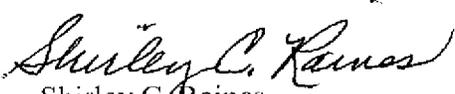
The University of Memphis enthusiastically supports the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals;
- Assisting in providing positive conditions for reform throughout the state;
- From providing the guarantee of an internship opportunity for very undergraduate to research leading to technology transfer and commercialization, the University of Memphis promotes economic development;

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement. Student success is a major goal of the strategic plan of the University of Memphis. We are actively engaged in national efforts to improve STEM education, reform of teacher education and partnerships with community colleges for dual admissions and enrollment. Among our successful initiatives is the Ready-Set-Grow program for early education for directors and teachers, ambitious goals for quality early education are being achieved.

We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

  
Shirley C. Raines  
President

# Cleveland State

## COMMUNITY COLLEGE

OFFICE OF THE PRESIDENT

December 17, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

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- Turning around our lowest-achieving schools

Cleveland State Community College enthusiastically supports the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout the state and the five county area we serve (Bradley, McMinn, Meigs, Monroe and Polk Counties).
- Providing assistance to area high schools in mathematics instruction with a future focus on developmental math instruction in the senior year. This will result in students graduating from high school with college level math skills.

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement in mathematics. Community colleges will also become the major provider of teachers in the future and Cleveland State Community College will be working very closely with the Tennessee Board of Regents and its universities in the Teacher Quality Initiative. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,



Carl M. Hite  
President



December 16, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

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- Turning around our lowest-achieving schools

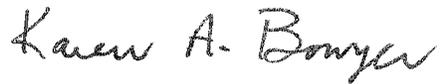
Dyersburg State is a learner-centered community college that enthusiastically supports the Tennessee Race to the Top proposal and commits to:

- Publicly advocate for the proposal and its goals
- Assist in providing positive conditions for reform throughout the state and in the northwest Tennessee community
- Provide restricted funds and grant funds to accomplish the goal of strengthening persistence and retention by implementing research-based strategies along with assessment of student learning. Dyersburg State is currently in the process of redesigning

all remedial and developmental courses to help students move through the pipeline in a timely manner, restructuring student services around a “one stop” support concept and utilizing new technologies that advance learning.

Dyersburg State has worked in the past to support education practice and reform, specifically on issues designed to support student achievement. As mentioned in each of the areas of reform, we have been working to help students “turn the corner” and we look forward to progressing in a manner that will enhance student success. Dyersburg State is committed to our state’s future and we are confident that the opportunity to employ these new reforms will be a testament to what can be accomplished within the paradigm of educational transformation. We will work closely with the schools, districts, service areas and the state to implement the Tennessee plan once funded.

Sincerely,

A handwritten signature in cursive script that reads "Karen A. Bowyer". The signature is written in black ink and is positioned above the typed name.

Karen A. Bowyer  
President



A TENNESSEE BOARD OF REGENTS INSTITUTION

OFFICE OF THE PRESIDENT  
Dept. 100 • P.O. Box 8500  
Lynchburg, Tennessee 37352-8500  
(931) 393-1682 • FAX (931) 393-1680

December 17, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to create a culture of educational achievement and excellence, builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

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- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

Motlow State Community College enthusiastically supports the Tennessee Race to the Top proposal and commits to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout our community
- Review our potential to support through service or funding.

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

A handwritten signature in cursive script that reads "MaryLou Apple".

MaryLou Apple  
President



# Nashville State Community College

December 17, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Governor Phil Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of education achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

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- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving school

Nashville State Community College (NSCC) is a public entity with a student population approaching 9,000. NSCC enjoys a close association with the public school system. Given that, we enthusiastically support the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout Middle Tennessee

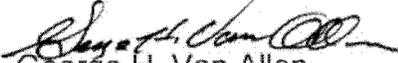
Office of the President

- Providing in-kind and funding to increase high school retention and graduation rates, primarily through Alignment Nashville (AN). AN operates as an arm of the Mayor of Nashville's office. Its mission, in summary form, "is to bring community organizations and resources into alignment so that their coordinated support of Nashville's youth has a positive impact on public school success, children's health, and our community as a whole." NSCC grants in-kind support to AN by providing facilities for meetings and housing the city's Middle College High School, and much intellectual property to the Mayor's arm for rapid, positive change. The latter is best exemplified by the college president's role on the Board of Directors of AN.

The college and the NSCC Foundation also provide funding to encourage high school students to graduate and attend college. College employees are routinely assigned to AN's workshops for high school students and their parents. The college waives fees to eliminate the cost for applying and registering for college courses. The Foundation, in partnership with the Mayor's office, provides scholarships to high school students taking college classes. The financial support rendered by the college is an important component of the city's effort to successfully deal with a high population affected by the economic and social realities common to most urban areas. One measure of this assertion is that over 70% of the city's high school population are defined by Federal Guidelines as impoverished.

As detailed above, we have worked in the past to support education practice and reform, specifically on mechanisms designed to increase high school graduation rates and moving those graduates to college and university campuses. We are committed to our state's future. We will continue to work closely with our school district and state to implement the Tennessee plan.

Sincerely,

  
George H. Van Allen  
President



Dr. Richard Kitzmiller

*Superintendent of Schools*

p: 423.378.2102 f: 423.378.2120

December 7, 2009

Governor Phil Bredesen  
State Capital  
1<sup>st</sup> Floor  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Kingsport City Schools and the Kingsport community would like to express our commitment to serve as a proof point and shining example of your signature, bold and transformational initiatives in Tennessee. Kingsport, in an unprecedented community-wide effort, is fully prepared to be a leader in Tennessee's Race to the Top proposal, Tennessee Diploma Project, higher education reform, college access and workforce development, and teacher effectiveness reform efforts. Kingsport is prepared to lead a regional strategy around this work.

Because of your administration's accomplishments in PreK, implementation of higher standards, expansion of the teacher pipeline, funding improvements, and other factors such as Tennessee's wealth of student academic progress data, we believe our state is well positioned to be a winner in the Race to the Top federal education funding competition. Our community offers a platform to bring to life state strategies reflective of the "four assurances" required in the Race to the Top proposals. Particularly, we are focused on teacher effectiveness and leadership; standards and assessments; and use of longitudinal data as well as unique and systemic initiatives focused around the seamless connection of college readiness, access and completion; a STEM Academic Village concept and high quality pre-kindergarten expansion.

As an example of our community's strong support for education, our NETWORKS Sullivan County Partnership hosted an Education-Workforce Summit in February 2009. This event launched a series of facilitated conversations among education, business and community leaders with the goal of improving public schools in our region. The meeting resulted in five goals for our community: 1) Meet the Tennessee Diploma Project requirements; 2) Qualify more students for Educate and Grow scholarships; 3) Increase the overall education level attained for Sullivan County residents; 4) Foster a learning culture in Sullivan County; and 5) Work to ensure that Sullivan County, Kingsport and Bristol public schools are recognized as performance leaders in the state and nation.

We understand that in large measure Race to the Top is focused on bold and transformational reform (policy, politics and culture) that can have a dramatic impact on closing the achievement gap and turning around low performing schools quickly.

We may have those same challenges on a smaller scale in Kingsport, but what we believe needs the same level of attention and experimentation is ensuring that Tennessee's "good" schools can become "great" schools and maintain that level of relentless improvement in student achievement. There arguably is much to learn from focusing efforts on this "good to great" challenge (with particular focus on first-generation potential college goers) in order to transfer to all levels of education reform across the board.

Kingsport has formed a Race to the Top Steering Committee (please see attached signatures). Specifically, we are committed to serving as a model leader in the following content areas:

#### **Teacher Effectiveness and Data**

- Plan and implement a new evaluation system for teachers.
- Ensure that the tenure granting process incorporates multiple factors including TVAAS data.
- Develop a differentiated compensation system for teachers based on the new evaluation standards. (Our school team has reviewed and analyzed the Memphis TEL, Benwood Initiative and TAP programs [used in four Knox County schools] as model guides for our work.)

#### **Better Use of Value-Added Data**

- Currently reaching out to Dr. William Sanders and Dr. June Rivers of SAS to help guide us in an improved systemic use of TVAAS data for more effective professional development at the classroom level as well as helping us think through a new teacher evaluation model in Kingsport. (We are analyzing the work they are currently engaged in with Metro Nashville Public Schools and Memphis City Schools.)

#### **Best Practice Model for Tennessee Diploma Project**

- Implemented the Tennessee Diploma Project policies a year earlier than required and continue to implement the necessary resources and support to ensure all of our students reach the new graduation standards.
- Partner with the State to accelerate Race to the Top implementation in other districts.

#### **Unique Partnership to Deliver Smarter and Earlier Interventions**

- Developing a new and innovative partnership between a community college (Northeast State Community College) and a K-12 system (Kingsport City Schools).
- Ensure that every student will be diagnosed and assessed early and often (6th grade through 12th grade with TVAAS, EXPLORE, PLAN, ACT and COMPASS).
- Provide individually focused interventions to ensure that every student is college ready upon graduation, eliminating the need for remediation and developmental work in post-secondary education.
- We believe this local/regional model can ultimately push a more comprehensive higher education policy reform movement.

### **Taking Educate & Grow to a Higher Level of Impact**

- Improve our nationally recognized college access and economic development program, Educate & Grow, by expanding its reach and ensuring all eligible students are college ready upon graduation. (Educate & Grow recently received national recognition from the 2009 Innovations in American Government Award through the Ash Institute for Democratic Governance and Innovation at the John F. Kennedy School of Government at Harvard University.)
- Developing a tie of our Educate & Grow program to your Books from Birth Foundation in our region. When children sign up for the Books from Birth Foundation program, they will have the option of signing up and receiving a “personal/family higher education account” or “seed scholarship capital” tied to Educate & Grow, which is now up and running in five counties. We believe this unique program, already established and recognized, can be a compelling way to address the Diploma Project.

### **Creating a Statewide College Access Organization**

- Design and develop a statewide non-profit coalition/membership organization, partnering with the Ayers Foundation to focus on growing local and regional college access programs (like the Books from Birth Foundation).
- Utilize partnerships to further critical higher education reform levers and push for policies that will have an impact on more first generation college students.
- Serve as a catalyst for a statewide, locally-driven college-access movement.
- As part of our community’s award through Harvard, our community is committed to facilitating national and statewide conversations around college readiness, access and completion.

### **Emphasize Science, Technology, Engineering & Mathematics Education (STEM)**

- Expand upon existing partnerships with Eastman Chemical Company and the business community promoting STEM to support economic development.
- Existing programs include: GEM4STEM (Growing Eastman Mentors for Science, Technology, Engineering, and Math) program; focused career fair on STEM related professions through the annual Eastman Career Fair; Eastman *Putting Children First* grant recipients aimed at strengthening STEM activities in instruction, Science & Math Olympiads, Math Counts, Mathletes, and Discovery Science Class.
- Utilizing system-wide math teacher leaders.
- Working with the state Department of Education and Regional Center for Applied Manufacturing to develop a Manufacturing program of study for the Tennessee Diploma Project.

### **Leverage the Unique Kingsport Academic Village**

- Kingsport has built a state-of-the-art Academic Village, a public-private partnership, comprised of a collection of five higher education institutions centrally located in the city’s downtown.
- Leverage the Academic Village as a resource to expand education and training at all levels for the community and region.

As with any bold initiative, evaluation of efforts is critical to ensuring maximum effectiveness. Our team has been exploring the opportunity of partnering with Vanderbilt Peabody College – College of Education and Human Development to assist in this effort. We feel this would assist in any corrections needed as a result of evaluation efforts conducted during the program.

Thank you for demonstrating courageous leadership around education reform during your tenure as Governor. We hope to have a chance to meet and discuss with your Race to the Top and Tennessee Diploma Project teams specific ways in which we can strengthen your application and sustain the high graduation standards adopted by the State Board of Education last year.

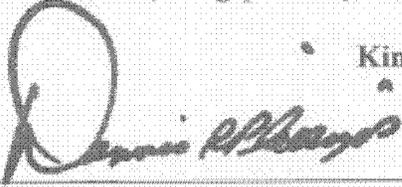
Sincerely,



**Richard Kitzmiller**  
Superintendent, Kingsport City Schools



**Susan Lodal**  
President, Kingsport Board of Education



**Dennis Phillips**  
Mayor, City of Kingsport

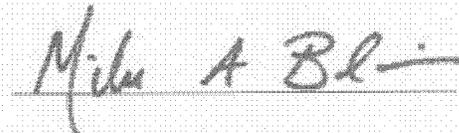
**Kingsport Race to the Top Team**



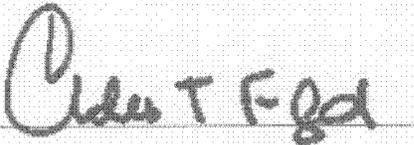
**John Campbell**  
City Manager, City of Kingsport



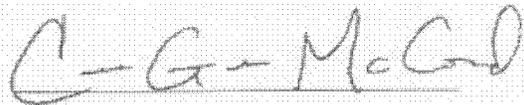
**Janice Gilliam**  
President, Northeast State Community College



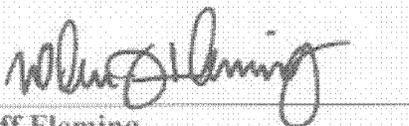
**Miles Burdine**  
President & CEO, Kingsport Chamber of Commerce



**Charlie Floyd**  
Vice President, Plant Manager  
Domtar Paper Mill



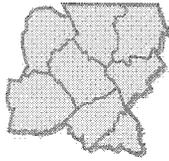
**CeeGee McCord**  
State Government and Community Relations  
Manager – Eastman Chemical Company



**Jeff Fleming**  
Assistant City Manager for Development  
City of Kingsport



**Morris Baker**  
Grants and Government Relations  
City of Kingsport



# Roane State COMMUNITY COLLEGE

276 Patton Lane Harriman, TN 37748-5011  
(865) 354-3000 ext. 4501 Fax (865) 882-4601

Office of the President

December 17, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

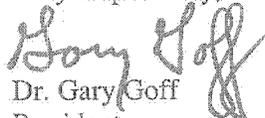
- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

Roane State Community College enthusiastically supports the Tennessee Race to the Top proposal and commits to:

- Publicly advocating for the proposal and its goals.
- Assisting in providing positive conditions for reform throughout our service area.

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement including serving as lead institution for the Big South Fork P-16 Council and as a supporting member of Knox Achieves. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Very respectfully,

  
Dr. Gary Goff  
President

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615/230-3500 ♦ Fax 615/230-3502 ♦ www.volstate.edu

## Office of the President

December 16, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms necessary to realize a culture of educational achievement and excellence.

We believe the only way Tennessee can truly position itself for victory is to make sure the application of this proposal is both bold and unique to our state. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

Volunteer State Community College enthusiastically supports the Tennessee Race to the Top proposal and commits to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout our twelve-county service area.

In our commitment to Tennessee's future, we work continuously to support education practice and reform. We are specifically focused on issues designed to support student achievement. We plan to work closely with our constituents within our twelve-county service area to implement the Tennessee plan once funded.

Sincerely,

A handwritten signature in black ink that reads "Warren R. Nichols".

Warren R. Nichols  
President

Cc: Chancellor Charles Manning  
Vice Chancellor Paula Myrick Short

**A TENNESSEE BOARD OF REGENTS INSTITUTION**

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OFFICE OF THE PRESIDENT

December 17, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, Tennessee 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools.

As a provider of an Associate of Science in Teaching, Walters State remains committed to the preparation of potential candidates for quality teaching preparation programs at colleges and universities. We enthusiastically support the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals;
- Assisting in providing positive conditions for reform throughout the state and in our community through the Mid-East Tennessee Regional P-16 Council; and
- Providing professional P-16 teacher and college faculty development based on ACT data and Standards for Transition referenced in the proposal.

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement for the preparation of:

- Students to successfully graduate from high school and succeed in college and be prepared to be productive citizens;
- A system to track progress for improved ACT college scores in our region; and
- Partnerships with K-12 school systems in distressed counties to provide opportunities for their students to achieve the goals of the Tennessee Diploma Project.

We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,



Wade B. McCamey  
President

:bls



# Tennessee Board of Regents

1415 Murfreesboro Road – Suite 350 – Nashville, Tennessee 37217-2833  
(615) 366-4400 FAX (615) 366-4464

December 18, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The State system of 27 Tennessee Technology Centers under the governance of the Tennessee Board of Regents supports the Tennessee "Race to the Top" proposal and commits to:

- Publicly advocating for the proposal and its goals

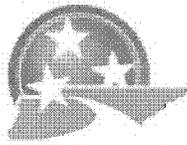
Austin Peay State University – East Tennessee State University – Middle Tennessee State University – Tennessee State University  
Tennessee Tech University – University of Memphis – Chattanooga State Community College – Cleveland State Community College  
Columbia State Community College – Dyersburg State Community College – Jackson State Community College  
Motlow State Community College – Nashville State Community College – Northeast State Community College  
Pellissippi State Community College – Roane State Community College – Southwest Tennessee Community  
Volunteer State Community College – Walters State Community College – The Tennessee Technology Centers

- Assisting in providing positive conditions for reform throughout the State of Tennessee through its system of strategically located technology centers
- Providing dual and high quality technical education opportunities referenced in the proposal in order to increase post secondary graduation and strengthen technical skill levels in order to meet the State's workforce development needs.

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement. The faculty, staff and administration of the Tennessee Technology Centers are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

  
James D. King, Vice Chancellor  
Tennessee Technology Centers



"The Highway to Success"

Tennessee Technology Center at Dickson

740 Highway 46

Dickson, Tennessee 37055

Phone: 441-6220 Fax: 441-6223

December 16, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides a unique opportunity for Tennesseans to realize their potential and prepare for a successful career. The Tennessee Diploma Project supports this concept and is designed to better prepare our students for post secondary and career readiness. The Tennessee Race to the Top proposal provides bold reforms and a support system that will create a stronger educational system designed to meet these goals.

The Tennessee plan is both bold and unique. This is a once-in-a lifetime opportunity to introduce significant change and result in accelerated student achievement. The plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in post secondary schools and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed the most; and
- Turning around our lowest-achieving schools.

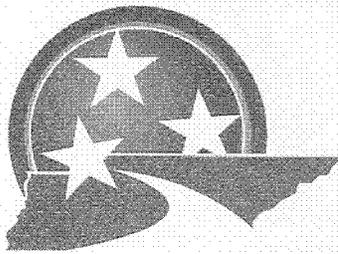
Tennessee Technology Center at Dickson fully supports the Tennessee Race to the Top proposal and commits to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout our service delivery area
- Providing dual enrollment opportunities to help reach higher attainment rates and to better prepare our students for their chosen career

We continue to work toward and support education reform, specifically on issues designed to support student achievement. We are committed to our state's future and will continue to work closely with local schools, districts, and the state to implement the Tennessee plan once funded.

Sincerely,

Mark E. Powers  
Director



## TENNESSEE TECHNOLOGY CENTER AT MURFREESBORO

1303 Old Fort Parkway • Murfreesboro, TN 37129  
(615) 898-8010 • FAX: (615) 893-4194

*"The Highway To Success"*

December 18, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

As a Tennessee citizen and an educator, I am very excited about the Race to the Top initiative. This project will provide an opportunity to create a future that allows all Tennessee students to reach their potential.

Tennessee's plan is both bold and uniquely benefits Tennesseans. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement statewide. The plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in post secondary institutions and the workplace ready to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals; and
- Turning around our lowest-achieving schools.

The Tennessee Technology Center at Murfreesboro enthusiastically supports of the Tennessee Race to the Top proposal and commits to:

- Publicly advocating for the proposal and its goals;
- Assisting in providing positive conditions for reform throughout our county area;
- Providing dual enrollment opportunities in careers that are high skilled, high demand, and high wage programs.

At the Tennessee Technology Center at Murfreesboro, we believe in developing a strong workforce through education. Race to the Top will enable Tennessee to move in the right direction for educational reform. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

Carol G. Puryear, Director  
Tennessee Technology Center- Murfreesboro



December 18, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

I think I speak for all Technology Center directors in offering our full and enthusiastic support for "Race to the Top". The Tennessee "Race to the Top" proposal offers unprecedented opportunities for Tennessee students to reach their potential and have post-secondary educational doors opened that would not otherwise have been possible. This proposal will accelerate bold reforms that otherwise might not happen for several more years or ever.

The proposal being offered will build upon our state's substantial educational assets and opportunities that your administration has put in education. It will carry the successful Tennessee Diploma Project to the next level. It will bring together great teachers and strong standards which provides a winning combination. This program can act as the catalyst needed to bring once in a lifetime changes to our schools. The economic future of our state depends on all partners being willing to make the bold changes to education that will be brought about by this project.

The only way Tennessee can truly position itself for victory is to make sure its application is bold and uniquely Tennessean. The Tennessee plan outline reforms in four specific areas aligned to the federal guidelines:

Phone: 423-663-4900

355 Scott High Drive  
Huntsville, TN 37756  
[www.huntsville.tec.tn.us](http://www.huntsville.tec.tn.us)

An Equal Opportunity/Affirmative Action Center

Fax: 423-663-4925

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The Tennessee Technology Center at Oneida/Huntsville offers our full and enthusiastic support to the Tennessee "Race to the Top" proposal. To assure the success of the project we commit to:

- Being a public advocate for the proposal and its goals in our area of East Tennessee.
- Working to provide positive conditions for reform in our school and throughout the region.
- Provide dual enrollment opportunities for adult students and expand dual-enrollment classes for high school students.
- Recruit the highest quality teachers and staff and offer flexible class time for post-secondary training.

In closing all Technology Centers will support the direction set out in this proposal for the necessary and critical educational reform. We are committed to enhance student achievement to allow our graduates to compete in the global economy. We stand ready to work closely with our individual schools, school districts, the state, your administration to assure the success of "Race to the Top" once it is funded.

Sincerely,



Dwight W. Murphy  
Director



December 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

I am writing to inform you of my full support for Tennessee's Race to the Top proposal. The Race to the Top funding provides an unprecedented opportunity in our state to create a future that allows all Tennessee students to reach their potential, with comprehensive educational experiences that prepare them for college and career pathways integral to the 21st century knowledge economy. This has been the vision of the Tennessee Diploma Project (TDP) and is a necessary component of a strong and economically vital future for the state. The proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational and business assets, and harnesses the deep impact of linking strong curriculum and standards, great classroom instruction and, finally, the application of learned principles taught in the classroom, providing our students with the comprehensive education that leads to increased critical thinking skills and greater depth of knowledge.

The only way Tennessee can truly position itself for victory is to make sure it's application is both bold and uniquely Tennessean. Through alignment of key stakeholders (P12-, higher-education and businesses), we are strategically positioned to take advantage of this once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

As executive director of the BioTN Foundation, a collaborative of P20 education and science/technology business, whose mission is to advance science and technology knowledge and enterprise within Tennessee, and as an individual with rigorous scientific/surgical training and expertise in dental regenerative therapeutics, I am keenly aware of the need for, and

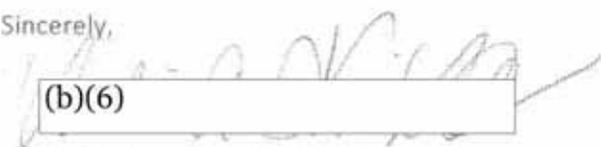
benefit of, high performing educational systems with relevant industry/business connections. Within a global marketplace of competition, it is essential that key stakeholders align for maximum effectiveness and efficiency in education. Through the work of the Tennessee

diploma project, and with the current Race to the Top proposal, Tennessee is uniquely positioned to address existing educational challenges as never before. With existing alignment of key stakeholders and the commitment of new partners, such as Battelle of Ohio, Tennessee is able to take advantage of the opportunity to implement "best [new] practices" to assist in meeting the requirements of rigorous educational standards that have been shown to yield the highly qualified educators/workers required to compete in a global economy. Therefore, on behalf of the BioTN Foundation collaborative, I enthusiastically support the proposal and commit to:

- Publicly advocate for the proposal and its goals
- Assist in providing positive conditions for reform throughout the state
- Continue to provide connection to experiential, or hands on, training, referenced in the proposal, and designed to enhance student/faculty depth of understanding required for higher level learning and performance

The BioTN Foundation has worked to support education practice and reform, specifically on issues designed to support student achievement, including 1) participation on the small leadership team for the Tennessee Diploma Project, 2) support for STEM focused initiatives including student/faculty internships, workshops, summer programs, as well as other secondary/higher education outreach initiatives connecting students/fellows with STEM professionals, and, 3) the co-development/implementation of a Biomedical Technology program designed to provide greater local access to the highly qualified workforce required to support current and future biomedical/life science businesses in Tennessee. We remain confident in the future of our state and the BioTN Foundation is committed to work closely with the schools, districts and state to implement the Tennessee Race to the Top plan, once funded. Thank you for your continued commitment to excellence in education and for your vision for what is possible for our students, graduates and leading businesses in the Great State of Tennessee.

Sincerely,



(b)(6)

Leslie A. Wisner-Lynch, DDS, DMSc  
Executive Director

# TENNESSEE GOVERNOR'S ACADEMY

MATHEMATICS  SCIENCE

January 2010

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

2730 Island Home Boulevard

Suite 201

Knoxville, TN 37910

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Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;

Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;

Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and

Turning around our lowest-achieving schools

The Tennessee Governor's Academy faculty, staff and students enthusiastically support of the Tennessee Race to the Top proposal and commit to:

#### PARTNERS

GOVERNOR PHIL  
BREDESEN

TENNESSEE  
DEPARTMENT OF  
EDUCATION

TENNESSEE SCHOOL  
FOR THE DEAF

TENNESSEE STATE  
BOARD OF EDUCATION

UT'S COLLEGE OF  
EDUCATION, HEALTH  
AND HUMAN SCIENCES  
& COLLEGE OF ARTS  
AND SCIENCES

OAK RIDGE NATIONAL  
LABORATORY

OAK RIDGE ASSOCIATED  
UNIVERSITIES

KNOX COUNTY  
SCHOOLS

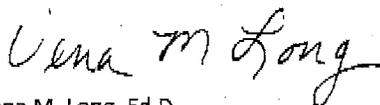
Publicly advocating for the proposal and its goals

Assisting in providing positive conditions for reform throughout the state

Continue to provide exceptional educational and research opportunities in conjunction with Oak Ridge National Labs for Tennessee's best and brightest.

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement and support teacher development particularly those serving gifted students excelling in STEM fields. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,



Vena M. Long, Ed.D.

Executive Director of Tennessee Governor's Academy

December 29, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

The Vanderbilt Center for Science Outreach (CSO) enthusiastically supports the Tennessee Race to the Top proposal, specifically in its commitment to improve and expand STEM (science, technology, engineering and math) educational capacity in the state.

Currently, the CSO has a number of partnerships with Metropolitan Nashville Public Schools (MNPS) including the School for Science and Math at Vanderbilt (SSMV), the Science Teacher Institute (STI) at the MNPS Martin Professional Development Center, and the Scientist in the Classroom Partnership (SCP) program. The SSMV, currently in its third year, offers high school students a four-year, interdisciplinary, research-centered learning experience at one of the nation's most prestigious universities, where students learn in a research environment alongside internationally recognized faculty leading the way in diverse fields of scientific study. The STI provides cutting-edge professional development experiences for middle and high school teachers coupling workshops, mentoring, and in-classroom programs with scientific research experiences to increase teachers' conceptual understanding of STEM fields. The ten-year long SCP program places science graduate students and postdoctoral fellows in middle school classrooms to team-teach with MNPS teachers.

Vanderbilt and MNPS are eager to collaborate in the Race to the Top proposal to extend the reach of these innovative programs to additional Nashville public schools. If the proposal is successful, it would enable students to pursue a curriculum that connects STEM disciplines through meaningful and engaging exploration with increasing depth and independence. With the assistance of Battelle, which is leading a major ramp-up of STEM education in Ohio, we expect to make a similarly large impact in Middle Tennessee.

The Vanderbilt Center for Science Outreach, therefore commits to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform in Nashville

- Providing instructional support for enhanced STEM curricula in Nashville public schools.

The Vanderbilt CSO is pleased to support education practice and reform, especially in the areas of science, technology, engineering and math instruction, and we are highly committed to the future of education in Tennessee. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

A handwritten signature in cursive script, appearing to read "Virginia L. Shepherd".

Virginia L. Shepherd, Ph.D.  
Director, Vanderbilt Center for Science Outreach  
Professor of Pathology, Vanderbilt University School of Medicine

December 16, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

The Millard Oakley STEM Center was established in 2004 as a Tennessee Technological University campus-wide initiative to improve teaching and learning across the STEM disciplines, pre-school through the university. The Center has established a solid foundation of quality professional development for STEM educators, cutting-edge enrichment opportunities for students, and scientifically-based research on STEM teaching and learning. With its upcoming move in spring 2010 into its new home, Ray Morris Hall, the Center will become a highly visible focal point of campus, regional, and state efforts to meet high expectations in STEM education.

TTU's Millard Oakley STEM Center is pleased to be a collaborating partner in the Tennessee application to Race to the Top. This is an unprecedented opportunity to provide all Tennessee students with opportunities to reach their potential and have choices for college and careers. The Tennessee Diploma Project and the recent approval of new, more rigorous, curriculum standards are necessary components of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

As the Oakley STEM Center director, I support the proposed reforms in four specific areas aligned to the federal guidelines. We have numerous Center activities congruent with each of the reforms already in place and we look forward to opportunities to expand our services and to further address the following targeted initiatives:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

I enthusiastically support the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals through the Oakley STEM Center's web site and other public venues;
- Assisting in providing positive conditions for reform throughout the state and particularly in the Upper Cumberland, one of the most under-educated and economically disadvantaged regions of Tennessee;
- Continuing and expanding existing professional development such as Math Science Partnerships, THEC Improving Teacher Quality projects, Research Experiences for Teachers, and self-supporting activities based on the assessed needs of area educators and expertise of the TTU faculty;
- Continuing and expanding enrichment opportunities for youth including Governor's Schools, STEM Camps, Engineering-A-Future, and other activities targeted at bridging the gap between the services available in local communities and the needs of youth for immersion in the emerging STEM technologies;
- Fostering interdisciplinary collaborations among the STEM discipline faculty and the education faculty at TTU and with other Tennessee community colleges and universities to advance new research in STEM learning; and
- Seeking resources to support rigorous research on the effectiveness of various STEM instructional strategies and curriculum resources.

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement. We are committed to our state's future. We will continue to work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

A handwritten signature in black ink that reads "Sally J. Pardue". The signature is written in a cursive, flowing style.

Sally J. Pardue  
Director of Oakley STEM Center



Center of Excellence in  
Mathematics and Science Education  
East Tennessee State University

Dr. Jack Rhoton, Executive Director

Box 70301 | Johnson City, Tennessee 37614-1709 | (423) 439-7589 | Fax:(423) 439-7530 | rhotonj@etsu.edu

Monday, December 14, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

At no other time in the educational history of Tennessee have we experienced the unparalleled opportunities provided through the *Race to the Top*. This program will promote a culture in which all Tennessee students are able to flourish and reach their full potential as they prepare for college and careers. This vision originates and has been embedded in Tennessee's many strong, on-going efforts, such as the Tennessee Diploma Project, to build excellence in education. We believe this vision of excellence is critical to the state's short- and long-term economic vitality and prosperity. The Tennessee Race to the Top proposal builds on current and new courageous initiatives and provides the supports necessary to realize a culture of educational achievement and excellence by building upon our state's substantial educational assets, such as our strong standards and great teachers.

The *Race to the Top* offers our state an opportunity that, in all probability, will never to be repeated. We now have the chance to design a course of action that is bold and uniquely Tennessean. This is an opportunity to break the educational mold and position our schools to embark upon a course of accelerated student achievement. With these challenges and opportunities in mind, the Tennessee plan outlines reforms in four specific areas aligned to federal guidelines:

- ✦ Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- ✦ Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- ✦ Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- ✦ Turning around our lowest-achieving schools

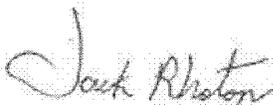
The East Tennessee State University's Center of Excellence in Mathematics and Science Education has a long history of advocating and building support to advance K-16 math and science education throughout our community and state. We are enthusiastically supportive of the Tennessee Race to the Top proposal and commit to:

- ✦ Publicly advocating for the proposal and its goals
  
- ✦ Assisting in providing positive conditions for reform throughout our community and the state
  
- ✦ Providing contracted services to accomplish a well-developed infrastructure network of cooperation and mutual respect between ETSU and local school districts. Our professional development model and evaluation design document our ability to scale up and build capacity and credibility with our partner school districts through designing, evaluating, revising, and expanding activities. For example, we have demonstrated through a rigorous evaluation protocol an increase in teacher content knowledge, increase in student learning, enhanced pedagogical/classroom management strategies, enhanced professional development networks, enhanced vision of effective math and science instruction, methods of retaining effective teachers in the classroom, and adapting assessments to better prepare students for success in college and the workplace.

Our work has been extensive over the past two decades, specifically on issues designed to support student achievement and teacher development. For example, we have organized, publicized, and joined in public events that bring together students, parents, and teachers with STEM professionals and industry partners. These events celebrate the importance of STEM within our community and inspire our students to higher achievement levels. We have a record of more than twenty years of providing quality, sustained professional development to our region's math and science teachers. These efforts have assisted us in building an infrastructure and data systems for documenting student achievement as well as developing and retaining effective teachers in the classroom.

We are prepared to assist the state in meeting the goals of the *Race to the Top*. We are committed to undertake this challenge knowing that Tennessee will be working alongside us to advance our common goals. We are strongly committed to our state's future, and, once this bold and ambitious plan is funded, we will eagerly redouble our efforts to work closely with the schools, districts and state of Tennessee.

Sincerely,



Jack Rhoton, Executive Director  
Center of Excellence in Mathematics and Science Education

**Tennessee Mathematics, Science,  
and Technology Education Center**  
Middle Tennessee State University  
Fairview Building, Suite 102, Box 82  
Murfreesboro, Tennessee 37132  
Office: 615-904-8573 • Fax: 615-907-9614  
www.mtsu.edu/tmstec

**MIDDLE  
TENNESSEE**  
STATE UNIVERSITY

December 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools.

The Tennessee Mathematics, Science, and Technology Center (TMSTEC) at Middle Tennessee State University is an officially designated Tennessee Board of Regents STEM Education Center, and serves as a statewide STEM Education Center. Over the past seven years, we have served thousands of K-12 in-service and pre-service STEM teachers and STEM university faculty across Tennessee. During this past year, we have provided sustained professional development programs for more than 510 K-12 teachers at STEM Education institutes in Memphis, Clarksville, Murfreesboro, Knoxville, and Chattanooga. We enthusiastically support the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals,
- Assisting in providing positive conditions for reform throughout the state, and



- Providing in-kind and contracted services as referenced in the proposal to accomplish the expansive / full scale transformation in education across Tennessee.

We continue to our work of supporting education practice and reform, specifically on issues designed to support student achievement through research and implementation of various projects related to the revisions of STEM Education Curriculum Standards, the Tennessee Diploma Project, and numerous state and federally funded projects to improve STEM Education and STEM workforce pipeline. We are committed to our state's future. We have an excellent record and will continue to work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

A handwritten signature in black ink, appearing to read "Rick Vanosdall". The signature is fluid and cursive, with a long horizontal stroke at the end.

Dr. Rick Vanosdall  
Professor and Director of STEM Education at MTSU  
TMSTEC Director



January 4, 2010

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

I write this letter to express my full and unequivocal support for the Race to the Top application. As someone who grew up on a small family farm well below the poverty level and went on to receive a doctorate from Harvard Medical School, patent several new therapies for debilitating injuries and eventually start a publically traded biotechnology company, I know first-hand the value that can only come from a great education.

Race to the Top provides an unprecedented opportunity in our state to create a future that allows all Tennessee students to reach their full potential, with comprehensive educational experiences that prepare them for college and career pathways integral to the 21<sup>st</sup> century knowledge economy. This vision, currently embodied in the Tennessee Diploma Project (TDP), is a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms of the TDP and provides for a culture of educational achievement and excellence; it builds upon our state's substantial educational and business assets, and harnesses the deep impact of linking strong curriculum and standards, great classroom instruction and, finally, the application of learned principles taught in the classroom, providing our students with the full continuum of education that leads to increased critical thinking and greater understanding.

This initiative is a once-in-a-lifetime opportunity to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
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- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

As President and CEO of BioMimetic Therapeutics Inc [Nasdaq: BMTI], a leading edge biopharmaceutical company focused on the development and commercialization of recombinant

protein therapeutics for the treatment of orthopedic injuries, I am keenly aware of the need for high performing educational systems. Companies like BMTI, who seek to lead in the development of "next generation" technologies, depend upon a highly qualified workforce to support their long-term success. Tennessee's Race to the Top proposal is a clear indication of the state's commitment to providing that workforce, through an enhanced continuum of education, and, on behalf of BioMimetic Therapeutics Inc., I enthusiastically support the proposal and commit to:

- Publicly advocate for the proposal and its goals
- Assist in providing positive conditions for reform throughout the state
- Continue to provide relevant experiential training, referenced in the proposal, for qualified high school students/faculty, in order to enhance their understanding for the application of knowledge gained through classroom instruction, thereby resulting in enhanced critical thinking/problem solving skills that are essential for leading science and technology businesses.

Moreover, as co-founder and Chairman of the BioTN Foundation, a not-for-profit foundation whose mission is to catalyze science and technology education (hence the word play on biotin, a B vitamin required for growth), we have an established, successful track record of working with the state's public and private educational institutions to provide new, more meaningful, dimensions to the students' educational experience, especially in providing experiential learning opportunities. Additionally, through its executive director, BioTN has also provided leadership to the core team responsible for developing the Tennessee Diploma Project, and has co-developed a Tennessee Board of Regents (TBR) approved, one-year Biomedical Technology program.

Finally, through the work of the BioTN Foundation, we have supported student internships, summer-camp programs with higher-education/science museum partners, informal science education community outreach programs to the public (such as BioTN Foundation's "Life Sciences: Solutions for Life" much sought-after hands on learning exhibit), as well as science faculty professional development.

I remain strongly committed to supporting these programs, and those additional needed programs which will be made possible only through successful Race to the Top funding. I am committed to our state's future and, through BioTN, will work closely with the schools, districts and state to implement the Tennessee plan for Race to the Top. Thank you for your continued commitment to excellence in education, and through it, the betterment of all Tennesseans.

Sincerely,

(b)(6)

Samuel E. Lynch, D.M.D., D.M.Sc.  
President and Chief Executive Officer

P.O. Box 431  
Kingsport, Tennessee 37662-5280  
Phone: (423) 229-3131  
Fax: (423) 229-1679  
jrogers@eastman.com

January 7, 2010

The Honorable Phil Bredesen  
Governor's Office  
Tennessee's State Capitol  
Nashville, TN 37243-0001

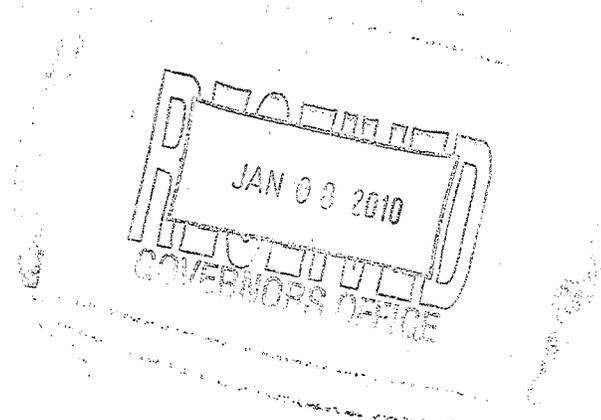
Dear Governor Bredesen:

I am writing to express to you Eastman Chemical Company's support of the initiatives you are proposing for education reform in Tennessee that will be considered in the special legislative session on January 12. We appreciate your leadership and commitment to raising standards and accountability in education. Eastman strongly supports the aggressive education agenda proposed for the state.

As you know, Eastman works closely with area school systems including the Kingsport City Schools, Northeast State Community College and the Kingsport Chamber of Commerce, to demonstrate how a business and a community can work together to transform the education landscape around college readiness, college access, and college completion. This local collaboration will be strengthened by passage of key education initiatives including the Race to the Top, college access and workforce development, and teacher effectiveness reforms.

The recommendations you have outlined for consideration during the special session depict common sense reform, aimed to better align Tennessee's education system with the changing world in which we live:

- Requiring that performance data be used in evaluating teachers and principals.
- Using the data in deciding whether to grant tenure to teachers.
- Mandating annual assessments of teachers.
- Creating a statewide "recovery district" for failing schools and school systems.
- Working to standardize a process to ensure credits for core community college courses are fully transferable to public 4-year institutions – statewide.



Again, we fully support your efforts. Thank you for your leadership around education reform.

Sincerely,

A handwritten signature in black ink, appearing to read "James P. Rogers". The signature is fluid and cursive, with a large initial "J" and "R".

James P. Rogers

cc: Congressman Phil Roe  
Lieutenant Governor Ron Ramsey  
Speaker of the House Kent Williams  
State Senator Delores Graham, Chair Senate Education Committee  
State Representative Harry Brooks, Chair House Education Committee

M E M P H I S



F O U N D A T I O N

January 12, 2010

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity in our state to create a future that allows all Tennessee students to reach their potential, with comprehensive educational experiences that prepare them for college and career pathways integral to the 21st century knowledge economy. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational and business assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

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- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

Memphis Bioworks Foundation was established as a 501(c)(3) non-profit organization with the mission to establish the region as an internationally recognized center for the development and commercialization of biomedical and bioscience technologies. Our organization is actively engaged in workforce training as the viability of our workforce is critical to achieving the mission of the Bioworks Foundation. For example, Bioworks founded the first charter school in the state, the Memphis Academy of Science and Engineering, to bring urban inner city students in grade 6 through 12 with both remediation and a focus on a STEM curriculum. The organization has other initiatives focused on creating, recruiting, attracting and retaining workers in the region that align well with the objectives of the Race to the Top proposal.

20 South Dudley, Suite 900  
Memphis, TN 38103  
office 901.448.8800  
fax 901.448.8850  
[www.memphisbioworks.org](http://www.memphisbioworks.org)

*Creating Opportunity Through BioScience*

As you can see, we enthusiastically support the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform in our community, including our ongoing commitment to expand STEM focused charter schools targeting the significant underserved population in Memphis and across the state.
- Providing support for increased STEM programs within the community and state. Specifically, we are committed to providing curriculum, models, management, and any experience we have to support the conversion of underperforming schools so critical to success in educational reform.

We have worked in the past to support education practice and reform, specifically on issues designed to improve student achievement. For example, we have significant experience in building experience-based internship programs for high school children and would be pleased to see these types of programs expanded in the future. Simply put, we are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

(b)(6)

Steven J. Barés, Ph.D., MBA  
President and Executive Director

**CHRISTINE KARBOWIAK**  
EXECUTIVE VICE PRESIDENT  
COMMUNITY AND CORPORATE RELATIONS

**BRIDGESTONE®**  
**BRIDGESTONE AMERICAS, INC.**  
535 MARRIOTT DRIVE NASHVILLE, TN 37214  
PHONE: 615 937 1556 FAX: 615 937 1414

January 12, 2010

The Honorable Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Tennessee has an unprecedented opportunity to create a future that allows all of its students to reach their potential, have choices for college and careers and contribute to the success of our state. Our state has long demonstrated its commitment to educating our young people and preparing them for the challenges the future holds. On behalf of Bridgestone Americas, Inc. (BSAM) and Bridgestone Americas Tire Operations (BATO) headquartered in Nashville and our more than 3,950 teammates in the state of Tennessee, we wish to reiterate the importance of a strong and vibrant education system to the long-term health of the Volunteer State's business community and our quality of life.

Education is the keystone to the success of our state's citizens and economy. We are proud to be a partner in this endeavor and understand that education is vital to recruitment, training and long-term investments in our workforce.

Our ability to maintain world-class operations in a competitive, international marketplace requires Bridgestone Americas to attract and retain the best and brightest. This can only be accomplished on the front end by assuring our prospective teammates that their children will enjoy a quality education from pre-K through our postsecondary institutions of higher education. At the end of the process, we need an education system that yields people with the skills to help us compete and win.

Bridgestone Americas is proud to put our commitment to education into practice. In conjunction with Warren County's Partnership with Nature Wildlife Area and the Warren County Schools, Bridgestone's Environmental Education Classroom and Habitat (BEECH) program is a shining example of our company's commitment to education. Located at Bridgestone Americas Tire Operation's 600-acre natural area beside our plant in Morrison, Tenn., BEECH incorporates interdisciplinary environmental education through classroom and hands-on learning opportunities for students. We are collaborating with the Warren County Schools and the Wildlife Habitat Council (WHC) to help students learn through the STEM program (Science, Technology, Engineering and Math), with a special focus on local wildlife, habitats, pollinators, forests, soils and the air. We're proud of the fact that our program has been certified by the WHC under that group's "Corporate Lands for Learning" program.



We encourage all stakeholders to consider the best needs of our young people as they prepare for the challenges ahead and look forward to working together to achieve the best education system possible.

Thank you for your consideration.

Sincerely,  
A handwritten signature in black ink that reads "Christopher Anderson". The signature is written in a cursive style with a large initial "C".



William E. Evans  
*Director and CEO*

t 901.595.3301 f 901.595.8600  
william.evans@stjude.org

January 8, 2010

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity in our state to create a future that allows all Tennessee students to reach their potential, with comprehensive educational experiences that prepare them for college and career pathways integral to the 21<sup>st</sup> century knowledge economy. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence, builds upon our state's substantial educational and business assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

At St. Jude Children's Research Hospital, we enthusiastically support of the Tennessee Race to the Top proposal and commit to:

- Advocating for the proposal and its goals
- Assisting in providing positive conditions for reform in our community
- Providing in kind services to help develop a program in the local school system that is designed to address common misconceptions about childhood cancer, instill health habits in children that



St. Jude Children's  
Research Hospital

ALSAC • Danny Thomas, Founder

could help prevent development of adult cancer and increase children's overall interest in science and scientific careers

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement in science. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Finally, thanks for your long-standing leadership to enhance the educational enterprise in Tennessee.

Sincerely,

William E. Evans

Orthopaedics  
Smith & Nephew, Inc.  
1450 Brooks Rd.  
Memphis, TN 38116 U.S.A.

901-396-2121  
800-821-5700  
www.smith-nephew.com

 We are smith&nephew

January 4, 2010

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity in our state to create a future that allows all Tennessee students to reach their potential, with comprehensive educational experiences that prepare them for college and career pathways integral to the 21<sup>st</sup> century knowledge economy. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational and business assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

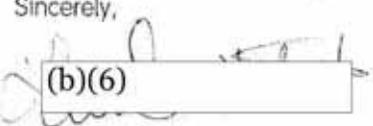
- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

Our team here at Smith and Nephew produces orthopedic implants and biologics for an increasingly global market. A quality workforce, well rooted in math and science, as achieved through STEM curricula, is vital to our success as a business and we enthusiastically support of the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout the state and in our community
- Providing mentoring and community advocacy for quality programs that address the needs for STEM education in the region. For example, we currently support the Memphis Academy of Science and Education (a charter school) by serving on the board and by helping with mentoring programs. We see this as a mechanism of encouraging high school students to graduate and pursue careers in the technology industry.

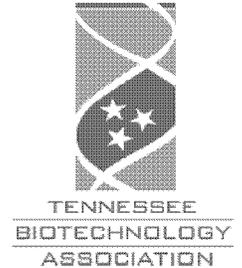
We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement and STEM education. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

  
(b)(6)

Laura Whitsitt

Senior Vice President, Global Research and Innovation



December 16, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity in our state to create a future that allows all Tennessee students to reach their potential, with comprehensive educational experiences that prepare them for college and career pathways integral to the 21<sup>st</sup> century knowledge economy. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational and business assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The Tennessee Biotechnology Association representing the biotechnology and life science industries across the State, underscore our enthusiastic support for the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout the state
- Providing the TBA membership as a resource-referenced in the proposal to accomplish its' goals by providing recommendations and serving as a sounding board for those involved in developing and implementing the plan.



We have worked in the past to support education practice and reform, specifically on initiatives designed to support student achievement by providing a forum for biotech and life sciences

including experiential training, support of high level, high quality scientific presentations/competitions by high school students in, and outside, of Tennessee as well as supporting and fostering the growth of young entrepreneurs in the life sciences through serving as host to a business plan competition for graduate students from across the state. We have also worked to establish greater connection between industry members and the state colleges and universities, both at the peer and pre-professional/professional scientist level through our board of directors and committee structure. Successful funding of Tennessee's Race To The Top proposal would provide the foundation to long-term success that the life science/biotechnology businesses are looking for as they seek to grow and develop into leading companies, who's success depends upon ready access to a highly qualified workforce. We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded and look forward to the opportunity to participate.

Sincerely,

(b)(6)

Robert V. Acuff, Ph.D.  
Chair of the Board



TENNESSEE  
BIOTECHNOLOGY  
ASSOCIATION



December 30, 2009

The Honorable Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

The Ayers Foundation would like to express with fervor our support for the State of Tennessee's proposal for the *Race to the Top* competition. We understand that this proposal accelerates the bold reforms necessary to realize a culture of educational achievement and excellence. It builds upon our State's substantial educational assets and harnesses the deep impact of linking strong standards with great teachers in our classrooms. This proposal provides a unique opportunity for the State of Tennessee.

As you know, The Ayers Foundation has been dedicated to improving and sustaining the quality of life in the State of Tennessee through several fields with the primary emphasis being education. We have spent the last decade supporting education both through The Ayers Foundation Scholars Program as well as through other philanthropic work. The Ayers Foundation Scholars Program has provided college access for those living in the rural western counties of Tennessee. We have seen an unprecedented number of our students commit to pursue and achieve higher education. We recognize the vital importance of equipping our students with the educational tools necessary for being successful. This has inspired many of our students to become ambassadors in their own communities.

Please accept this letter of support from The Ayers Foundation for the *Race to the Top* proposal as our commitment to provide support and partnership of this great opportunity for the State of Tennessee. Thank you for your unwavering dedication and leadership for educational reform in Tennessee.

Sincerely,

(b)(6)

James W. Ayers  
Chairman

Janet Ayers  
President

# BENWOOD FOUNDATION

December 18, 2009

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The Benwood Foundation is a private foundation located in Chattanooga whose purpose it is to seek to stimulate creative and innovative efforts to build and strengthen the Chattanooga Community. Since 2001, the Benwood Foundation has committed more than seventeen million dollars to a local public school improvement, known as The Benwood Initiative. Working with the local school system and the Public Education Foundation, we have addressed the needs of the most challenged elementary schools in the district. The foci of the Initiative are based upon quality teachers, strong instructional leadership, and effective use of data.

In August, the U.S. Department of Education, under Secretary Arne Duncan, recognized the Benwood Initiative as the transformational model in his announcement of the \$3.5 billion in Title I School Improvement Grants to fund transformational changes where children have long been underserved.

One important lesson we have learned is that sustainability of school improvement reform is hindered without strong local and state policies to transform programs/projects into system-wide practice.

Therefore, we enthusiastically support of the Tennessee Race to the Top proposal and commit to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout the state and in our community
- Providing on-going local support and willingness to entertain possible other education reform grants (local and state).

We have worked in the past to support education practice and reform, specifically on issues designed to support student achievement, through emphasis on reading-language arts, writing, and math. Our academic goals are clear with increasing emphasis on high standards.

We are committed to our state's future. We will work closely with the schools, districts and state to implement the Tennessee plan once funded.

Sincerely,

(b)(6)

Corinne A. Allen  
Executive Director

Cal Turner, Jr.

January 12, 2010

The Honorable Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

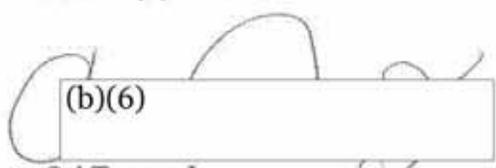
Race to the Top is an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This letter is written as an enthusiastic endorsement of the legislation you are proposing during this week's special session of the Tennessee legislature.

The Tennessee Race to the Top proposal fosters a culture of educational achievement and excellence, building on our state's educational strengths, and furthering the vision of the Tennessee Diploma Project. It presents our state with the kind of leverage we would find difficult, if not impossible, to re-create. It is my sincerest hope that you and the legislature will find common ground on which to make Tennessee's Race for the Top application a compelling choice for the federal government.

As Chairman and CEO of Dollar General Corporation, I felt a compelling need to further the cause of literacy and education throughout our multi-state market area. Now, as Chairman of the Cal Turner Family Foundation, my family and I make investments in education in Tennessee a priority for our charitable giving.

You and our leadership in the state legislature have my heartfelt support as you work together to position Tennessee as a leader in education in our country.

Sincerely yours,



(b)(6)

Cal Turner, Jr.  
Chairman, Cal Turner Family Foundation



**STATE OF TENNESSEE**  
**Governor's Office of Children's Care Coordination**

2700 Tennessee Tower  
312 Rosa L. Parks Avenue  
Nashville, Tennessee 37243-1102  
Phone: 615-741-5192  
Fax: 615-741-5719

**Phil Bredesen**  
Governor

**Bob Duncan**  
Director

December 14, 2010

Commissioner Tim Webb  
Tennessee Department of Education  
Andrew Johnson Tower, 6<sup>th</sup> Floor  
710 James Robertson Parkway  
Nashville, TN 37243

Dear Commissioner Webb,

As Director for the Governor's Office of Children's Care Coordination, I appreciate the significance of and fully support the Department of Education's proposal to strengthen Tennessee's educational system through its Race to the Top application.

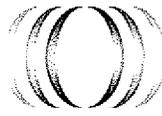
A fundamental responsibility of this office is the translation of science into public policy. Our office works with the child serving departments to identify and implement best practices in all manner of programs and services. DOE's proposal to incorporate the earlier application for support of an enhanced Longitudinal Data System which will link data elements from the other departments with the LDS will give the state a vehicle to build evidence of best practice not only for the education system but also for related systems such as health, human services, children's services, mental health and workforce development. Going forward there will be increasing pressure to fund the programs and services that demonstrate most favorable outcomes. DOE's proposal to complete and extend the LDS to P20, surrounded by complementary data sets, will support that agenda.

As a supporter of DOE's application, the GOCCC commits resources of this office to implementation of the Race to the Top project when it is awarded. The Governor's priority on education has been clear and consistent. Implementation of this project will mark a turning point for Tennessee and be an outstanding legacy of the Administration.

Cordially,

A handwritten signature in blue ink, appearing to read "Bob Duncan", with a long horizontal flourish extending to the right.

Bob Duncan, Director  
Governor's Office of Children's Care Coordination



## HYDE FAMILY FOUNDATIONS

17 WEST PONTOTOC AVENUE, SUITE 200 MEMPHIS, TENNESSEE 38103  
901.685.3400 FAX 901.683.7478

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December 18, 2009

The Honorable Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

It is with great enthusiasm that the Hyde Family Foundations express support for the State of Tennessee's proposal for the *Race to the Top* competition. We will lend our resources and relationships to your proposed initiatives and will commit to making sure these efforts are sustained at the highest levels moving forward.

The Hyde Family Foundations understand the unprecedented opportunity that we, as Tennesseans, have to transform the way we will think of public education. The delivery of highly effective teaching for every child, urgently closing the achievement gap and making sure that we are both driven by our unique data system and held accountable by that same unique and rich data are the cornerstone of transforming Tennessee's public education system.

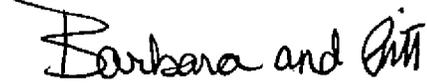
We have worked over the last decade to make a deeper and broader impact in the Memphis public schools, specifically focusing on human capital talent, management and teacher effectiveness. Our work has been programmatic (recruiting a portfolio of the nation's most effective human capital partners: Teach for America, The New Teacher Project and New Leaders for New Schools) as well as systemic in its state policy impact (serving as a private partner in the Tennessee Diploma Project; supporting the teacher certification reform at the State Board; and championing high quality charter school legislation). Our work has been based and driven by a fundamental belief that teachers and school leadership are the most important variables in making significant improvements in student performance and closing the achievement gap in our communities. We believe our commitment to and support of the Bill & Melinda Gates Foundation's Memphis Teacher Effectiveness Initiative can serve as a specific example of where we can be of service to you.

We are prepared to be a partner in the work, in its clarity of purpose, implementation, accountability, sustainability and effectiveness. As you know, our priority has been focused on supporting education reform in Memphis, but we recognize that our work will be accelerated dramatically through your bold vision and specific policy and programmatic proposals in the *Race to the Top* application. Our fundamental interest in this effort will be to play an even greater role as a catalyst in the Tennessee philanthropic community for helping implement and sustain

well informed, innovative and effective teacher quality and turn-around initiatives for the district.

Please accept this letter of support from the Hyde Family Foundations as a commitment to ensure that your *Race to the Top* proposal will have a dedicated partner in the philanthropic community. Thank you for your devotion to education reform in Tennessee and your courage to be bold and transformational in this race toward excellence in public education for every child.

Sincerely,

A handwritten signature in black ink that reads "Barbara and Pitt". The signature is written in a cursive, flowing style.

Barbara & Pitt Hyde

# INGRAM INDUSTRIES INC.

ORRIN H. INGRAM  
PRESIDENT AND  
CHIEF EXECUTIVE OFFICER

ONE BELLE MEADE PLACE • 4400 HARDING RD.  
NASHVILLE, TENNESSEE 37205-2290  
TEL. 615-298-8266 • FAX 615-298-7579

January 6, 2010

The Honorable Phil Bredesen  
Office of the Governor  
State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

I am delighted to provide this endorsement as an expression of our support for your efforts to improve our schools in Tennessee and, in particular, for your proposal in the *Race to the Top* competition. We need you to succeed, because we need all of Tennessee's children to succeed.

My family and our company remain convinced that better schools will improve the lives of all Tennesseans and are the single most important ingredient in the future success of our young Tennesseans. This is why I have been so supportive of bold and comprehensive education reform efforts in Nashville and across our state; incremental improvement and isolated programs are not acceptable.

I have been particularly interested and involved in the areas of teacher quality and compensation, higher standards for student achievement, research on the value of incentives for good teaching, and accountability on the part of school districts, schools, and faculty. Progress in these vital areas of public policy is critical to all our other efforts as Tennesseans – particularly in the realms of workforce development, public safety, and economic prosperity for all citizens. All of these contribute to a higher quality of life for everyone. To that end, I salute your leadership and your passion for better schools.

Please accept this letter as an expression of our support, our willingness to continue to provide both philanthropic and personal leadership wherever it is needed, and of our sincere hope that your *Race to the Top* proposal will be approved. Tennessee is uniquely positioned to be successful in this competition as a result of the Tennessee Diploma Project, its rich long-term database of student data (TVAAS), recent legislative changes related to charter schools, and an intense unified focus on public education by the business and philanthropic communities.

As always, please let me know whenever I may be of assistance in your important initiative for our schools and all of our children across Tennessee.

Sincerely,

 (b)(6)

Orrin H. Ingram

# James Stephen Turner Family Foundation

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January 12, 2010

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

Race to the Top provides an unprecedented opportunity to create a future that allows all Tennessee students to reach their potential and have choices for college and careers. This has been the vision of the Tennessee Diploma Project and a necessary component of a strong and economically vital future for the state. The Tennessee Race to the Top proposal accelerates the bold reforms and supports necessary to realize a culture of educational achievement and excellence; builds upon our state's substantial educational assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for victory is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

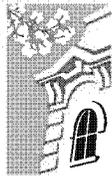
My work with the Nashville Area Chamber of Commerce, and the interests of my family's foundation, impress on me the integral role that a top quality, 21<sup>st</sup> century education plays in preparing our state's youth for college and meaningful careers. Race to the Top presents the state legislature and you with a precious opportunity to substantiate the education platform on which Tennessee's youth strive to reach their fullest potential.

You have my sincerest thanks and full support for pursuing this prospect in a spirit of bi-partisan collaboration, as we seek to be the leader in education in our country.

Sincerely,

(b)(6)

Steve Turner  
Chairman  
James Stephen Turner Family Foundation



# LYNDHURST FOUNDATION

**JACK MURRAH**, SENIOR ASSOCIATE

**December 21, 2009**

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen,

I write this letter to offer strong endorsement of the Tennessee Race to the Top proposal. The opportunity that it represents is greater than any I have seen in thirty years of professional engagement in public education reform. The Tennessee Diploma Project, launched with a politically transforming series of conversations around the state, has firmly established a vision of a better future in which all Tennessee students graduate from high school with good opportunities for college and careers. In my home community of Chattanooga, I now hear civic leaders speak with greater conviction about the economic necessity and moral mandate for aligning our actions with that vision.

The Diploma Project has raised the standards and started the process of building the institutional capacity to achieve them. The Race to the Top proposal accelerates those bold reforms and increases the supports and accountabilities necessary to realize a culture of educational achievement and excellence. It appears that we have reached a consensus that it is time to mobilize the state's substantial educational assets and harness the deep impact of linking strong standards and great teachers in our classrooms.

The application is framed on one side by a respect for Tennessee's distinctive educational traditions and on the other side by a passionate commitment to making the most of this once-in-a-lifetime opportunity to make dramatic improvements in student learning. The proposal projects a bold but achievable agenda of change within four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace, and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;

- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools.

The Lyndhurst Foundation, a Chattanooga-based private charitable endowment, is currently funding a multi-million dollar middle school movement in our 40,000-student district. We have seen large numbers of students reach higher levels of achievement in schools where standards are high and data systems are used both to build instructional capacity and to create a culture of accountability. We have seen these changes all across our highly diverse district, but progress has been most difficult in schools where disadvantaged communities are not provided access to highly effective principals and teachers. Given our struggles, we look forward to participating in a national initiative that is firmly committed to building the leadership skills and courage necessary to overcome this pattern of neglect.

Moreover, we have become profoundly aware, over the years, that our local success is heavily dependent upon an enabling policy framework, as well as tools and networks, that can be established only at the state level. We are excited by the prospect of the state-wide changes proposed in the Race to the Top initiative, and we will provide to the state all the support that we can to bring them about. We will advocate for them, collaborate with you in carrying them out, and integrate our efforts with those of other communities in Tennessee.

Sincerely,

(b)(6)

Jack Murrah  
Senior Associate

**Chairman**

Joey A. Jacobs  
Psychiatric Solutions

**Vice Chairman**

Ben R. Leedle, Jr.  
Healthways  
Jeffrey R. Bulster, M.D., Ph.D.  
Vanderbilt Medical Center

Bo Bartholomew  
Leadership Health Care  
PharmMD

Richard M. Bracken  
HCA

Gary A. Brukardt  
Specialty Care Services Group

Victor L. Campbell  
HCA

William Carpenter  
LifePoint Hospitals

Thomas G. Cignaran  
Healthways

Reginald W. Copwood, M.D., FACS  
Metropolitan Nashville Hospital Authority

John A. Deane  
Southwind Health Partners

James Elrod  
Vestar Capital Partners

Richard E. Francis, Jr.  
Symbion

Herbert A. Fritch  
HealthSpring

Vicky B. Gregg  
BlueCross BlueShield of Tennessee

Christopher A. Holden  
AmSurg

A. J. Kazimi  
Cumberland Pharmaceuticals

Ronald R. Kinzey  
Ford & Harrison

Jim Lackey  
PASSPORT Health Communications

Kevin P. Lavender  
Fifth Third Bancorp

Samuel E. Lynch, D.M.D., D.M.Sc.  
BioMimetic Therapeutics

Ueda Marzalo  
Gould Turner Group

Keith Pigs  
Vanguard Health Systems

Doug Roldeder  
Ernst & Young

C. Brian Shipp  
AMERIGROUP

Wayne T. Smith  
Community Health Systems

Leigh Walton  
Bass, Berry & Sims

**Ex Officio**

James W. Bradford  
Owen Graduate School of Management

William C. O'Neil, Jr.  
Healthways

Ralph J. Schulz, Jr.  
Nashville Area Chamber of Commerce

Caroline Young  
Nashville Health Care Council

December 16, 2009

The Honorable Phil Bredesen  
Governor  
State of Tennessee  
Tennessee State Capitol  
Nashville, Tennessee 37243-0001

Dear Governor Bredesen:

On behalf of the Nashville Health Care Council Board of Directors, we support the *Tennessee Race to the Top* proposal. As an organization we believe that *Tennessee Race to the Top* provides an unprecedented opportunity in our state to create a future that allows all Tennessee students to reach their potential with comprehensive educational experiences that prepare them for college and career pathways integral to the 21<sup>st</sup> century knowledge economy. The *Tennessee Race to the Top* proposal accelerates the bold reforms and support necessary to realize a culture of educational achievement and excellence, builds upon our state's substantial educational and business assets, and harnesses the deep impact of linking strong standards and great teachers in our classrooms.

The only way Tennessee can truly position itself for success is to make sure its application is both bold and uniquely Tennessean. This is a once-in-a-lifetime chance to change our schools and accelerate student achievement. The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools.

The Nashville Health Care Council is committed to our state's future and look forward to seeing the Tennessee plan implemented once funded. We greatly appreciate your time and consideration of this request.

Sincerely,

(b)(6)  
Caroline Young  
President



January 6, 2010

Governor Phil Bredesen  
Office of the Governor  
Tennessee State Capitol  
Nashville, TN, 37243-0001

Dear Governor Bredesen:

The Tennessee *Race to the Top* proposal will accelerate the reforms and supports necessary to insure a future of quality educational opportunities for students throughout Tennessee. During recent years, much emphasis has been placed on raising the standards to which our students and educators are held. The Tennessee Diploma Project is one example of the state's desire to insure that Tennessee students are afforded a rigorous and relevant curriculum. *Race to the Top* will provide an unprecedented opportunity to build upon our state's substantial educational assets, and insure a strong and economically vital future for our state.

The Tennessee plan outlines reforms in four specific areas aligned to the federal guidelines:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and
- Turning around our lowest-achieving schools

The mission of the Niswonger Foundation is to create opportunities for individual and community growth through education. The foundation is an operating foundation designed to partner with schools to provide not only financial support but also on-going support from experts in educational reform. During the past eight years, we have successfully worked with schools throughout Northeast Tennessee to increase student achievement. Because the *Race to the Top* proposal mirrors the mission of the Niswonger Foundation, we enthusiastically support the Tennessee *Race to the Top* proposal and commit to:

- Publicly advocating for the proposal and its goals
- Assisting in providing positive conditions for reform throughout the state

We are committed to providing quality educational opportunities for all Tennesseans and will work closely with all involved to implement the Tennessee's *Race to the Top* plan.

Sincerely,

(b)(6)

Linda Irwin  
Director of School Partnerships

# Memphis Philanthropic Partners

December 30, 2009

The Honorable Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

It is with great excitement that we express our support for the State of Tennessee's proposal for the *Race to the Top* competition.

Each of our organizations understands the unique opportunity that *Race to the Top* will afford Tennessee's local school districts and communities. We are prepared in Memphis to support the work around building new strategies for effective teaching; sustaining the higher academic standards; ensuring that great teaching is based on accurate and meaningful data; and focusing on dramatic turn-around strategies for our most challenging schools.

Collectively, our work around education reform has focused on the goal of improving student achievement and we have been engaged in efforts to close the achievement gap. We believe that the most important way to improve student achievement is to ensure that there is a highly effective teacher in every classroom. We are proud to be partners in the Gates Foundation Teacher Effectiveness Initiative and we support your *Race to the Top* proposal and will work as philanthropic leaders to ensure that the work is aligned and sustained.

We would like this letter to serve as our commitment to you that the local philanthropic community in Memphis will be on the ground and at the table for this important work. Together, we will ensure this work is not viewed as a finite project, but rather a catalyst for the school system and larger community to embark on the relentless pursuit of improving student achievement for all students.

Thank you for your bold vision and transformational proposal for *Race to the Top*.

Sincerely,

(b)(6)

Bob Fockler  
President  
Community Foundation  
of Greater Memphis

Tom Marino  
Executive Director  
Poplar Foundation

Scott McCormick  
Executive Director  
Plough Foundation

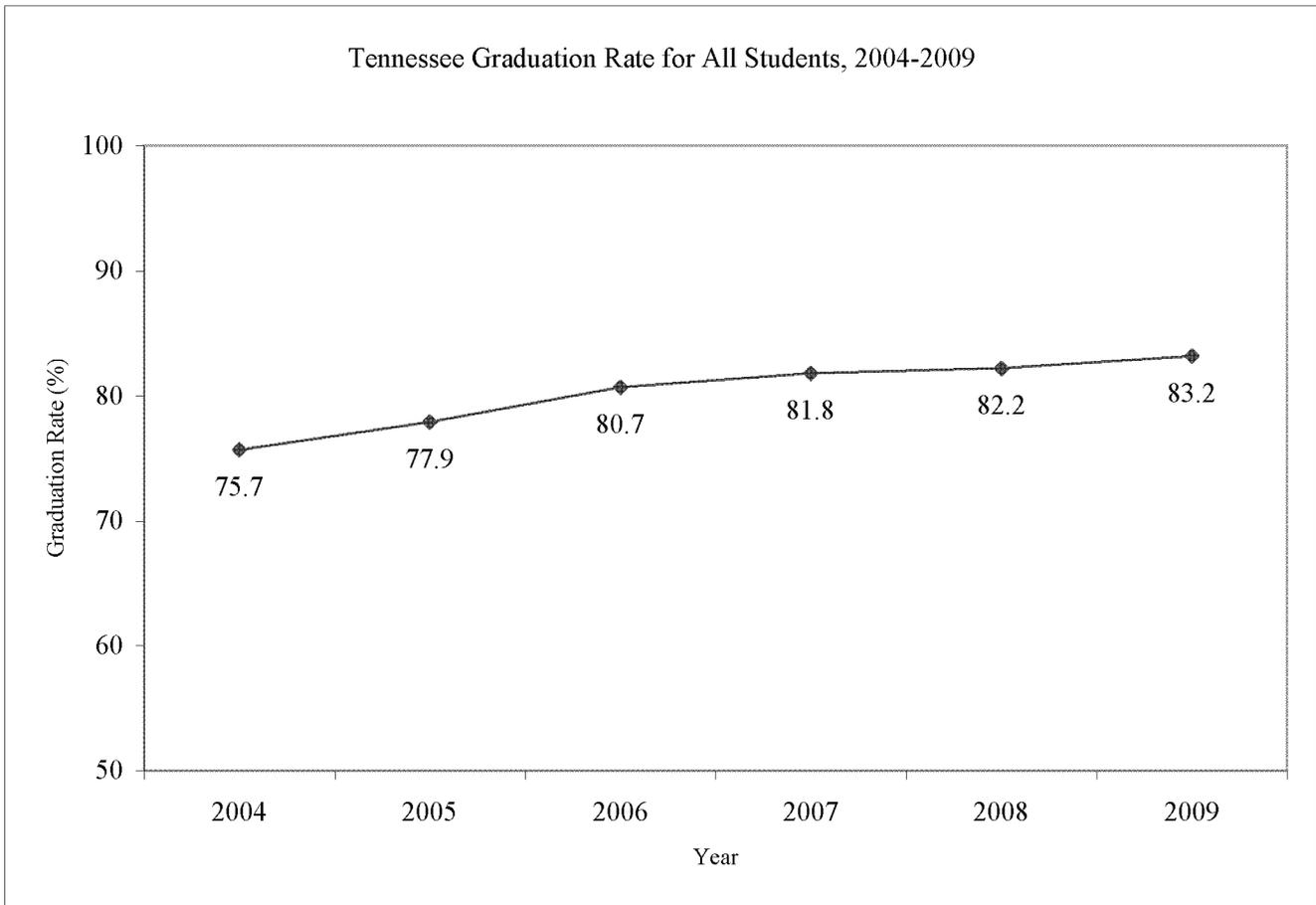
(b)(6)

Teresa Sloyan  
Executive Director  
Hyde Family Foundations

Jan Young  
Executive Director  
Assisi Foundation  
of Memphis

Lauren Young  
Executive Director  
Kemmons Wilson  
Family Foundation

## Tennessee Race to the Top Appendix A-3-1



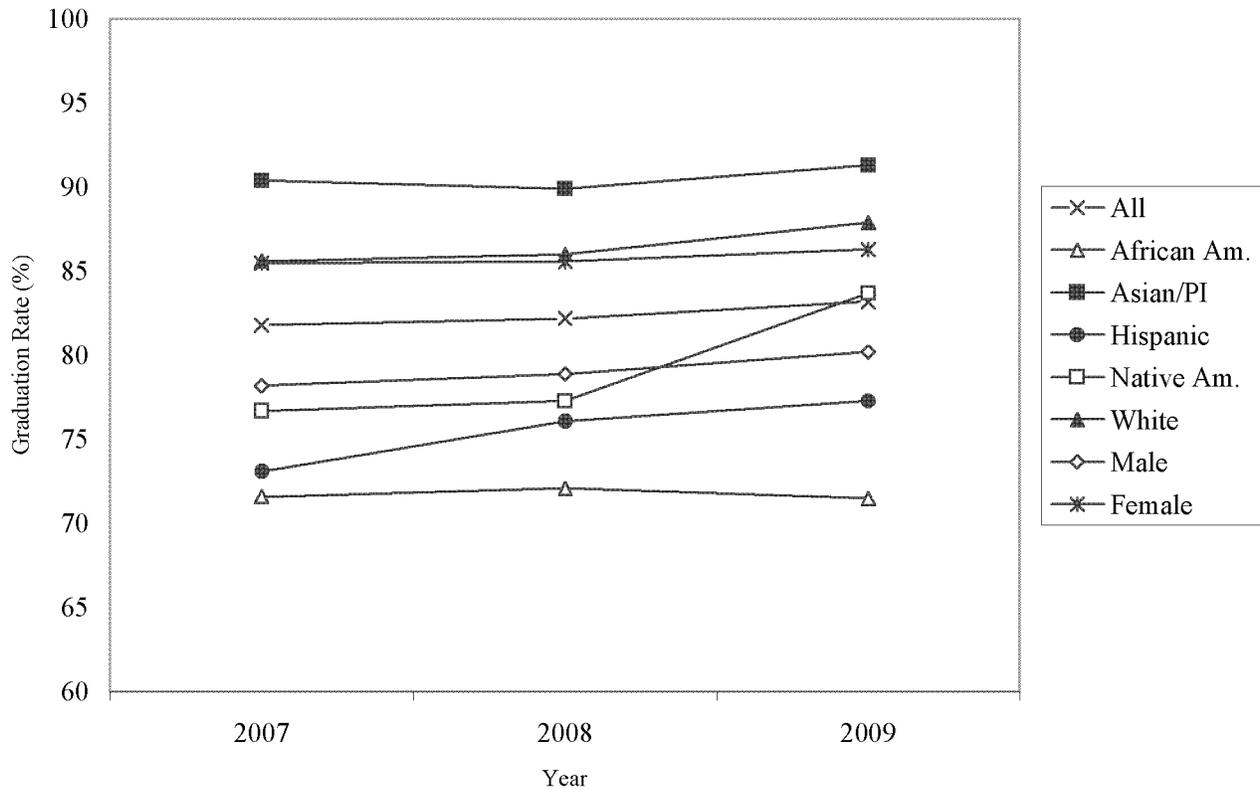
Tennessee Graduation Rate for All Students, 2004-2009

	2004	2005	2006	2007	2008	2009
All Students (%)	75.7	77.9	80.7	81.8	82.2	83.2

**Note:**

The graduation rate numerator only includes students who receive a regular diploma in the standard number of years. The numerator does not include students who obtain a GED, a special education diploma, or certificate of attendance. The number of regular on-time graduates is divided by the sum of all graduates, completers, and dropouts over the previous 4 years.

Tennessee Graduation Rate by subgroup, 2007-2009



Graduation Rate by subgroup

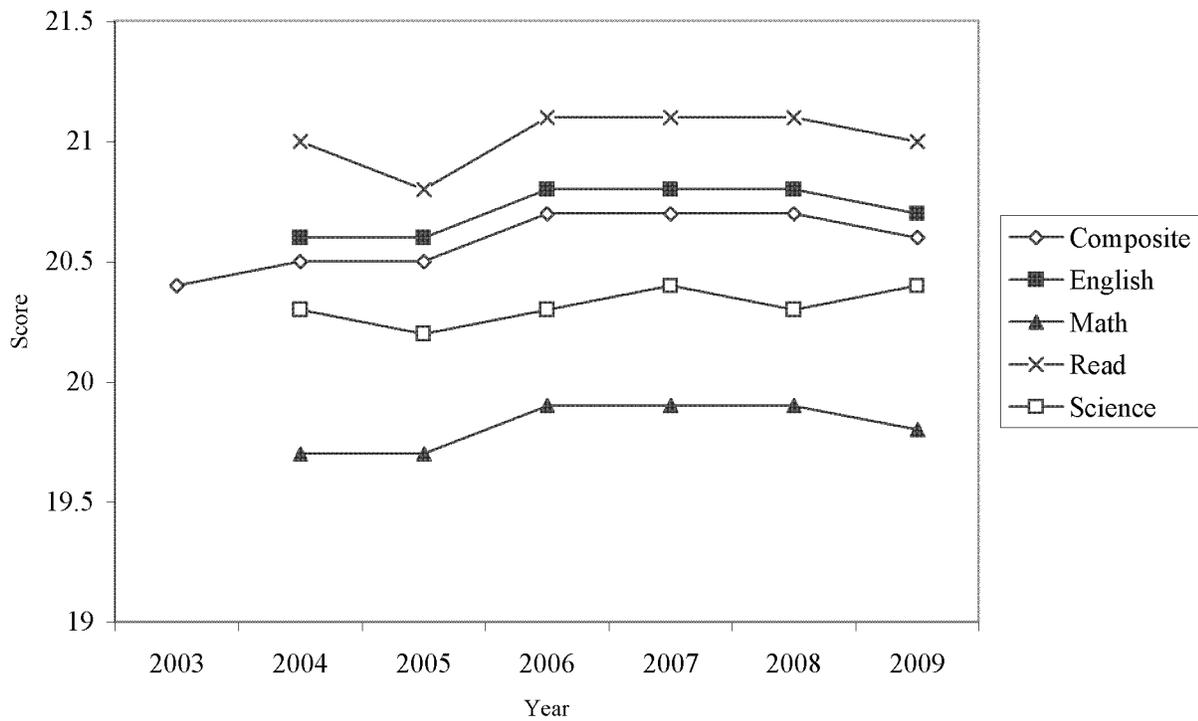
	2007	2008	2009
All	81.8	82.2	83.2
African Am.	71.6	72.1	71.5
Asian/PI	90.4	89.9	91.3
Hispanic	73.1	76.1	77.3
Native Am.	76.7	77.3	83.7
White	85.6	86	87.9
Male	78.2	78.9	80.2
Female	85.5	85.6	86.3

Note:

The graduation rate numerator only includes students who receive a regular diploma in the standard number of years. The numerator does not include students who obtain a GED, a special education diploma, or certificate of attendance. The number of regular on-time graduates is divided by the sum of all graduates, completers, and dropouts over the previous 4 years.

Tennessee has the capacity to disaggregate this information for race/ethnicity. For the other three required subgroups (Economically Disadvantaged, Students with Disabilities, and Limited English Proficient), Tennessee will begin to track first-time 9th graders for school year 2005-06. In 2009-10, Tennessee will be able to calculate a graduation rate for those three groups.

Tennessee ACT Scores, 2003-2009



Tennessee ACT Scores, 2003-2009

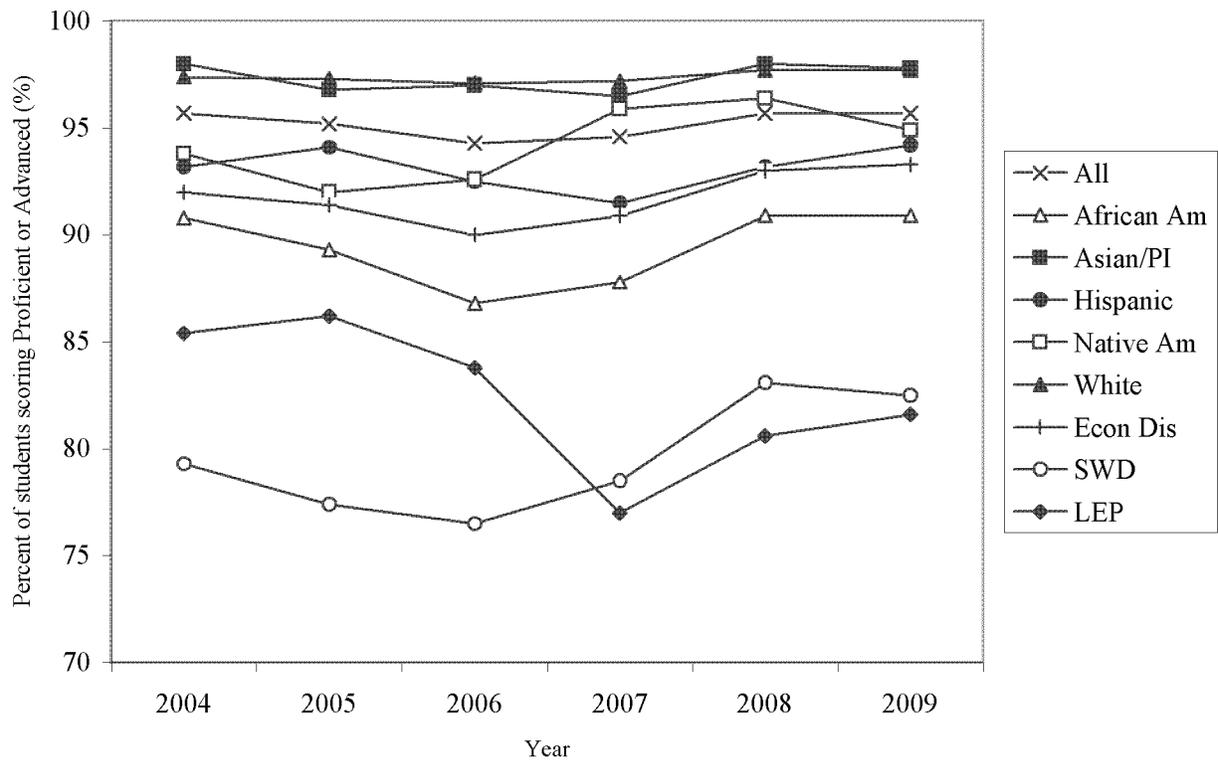
	% Tested	Composite	English	Math	Reading	Science
2003	74	20.4	*	*	*	*
2004	87	20.5	20.6	19.7	21	20.3
2005	92	20.5	20.6	19.7	20.8	20.2
2006	93	20.7	20.8	19.9	21.1	20.3
2007	96	20.7	20.8	19.9	21.1	20.4
2008	88	20.7	20.8	19.9	21.1	20.3
2009	92	20.6	20.7	19.8	21	20.4

\* denotes subject level data not available

Note:

Data for 2004-2009 are as reported nationally by ACT as single year aggregate data. These data are State level data and have been used for single year reporting in the format of: Composite, English, Math, Reading and Science since 2004. 2003 data were reported differently nationally.

Tennessee: Science Achievement (Biology) for Grades 9-12, 2004-2009

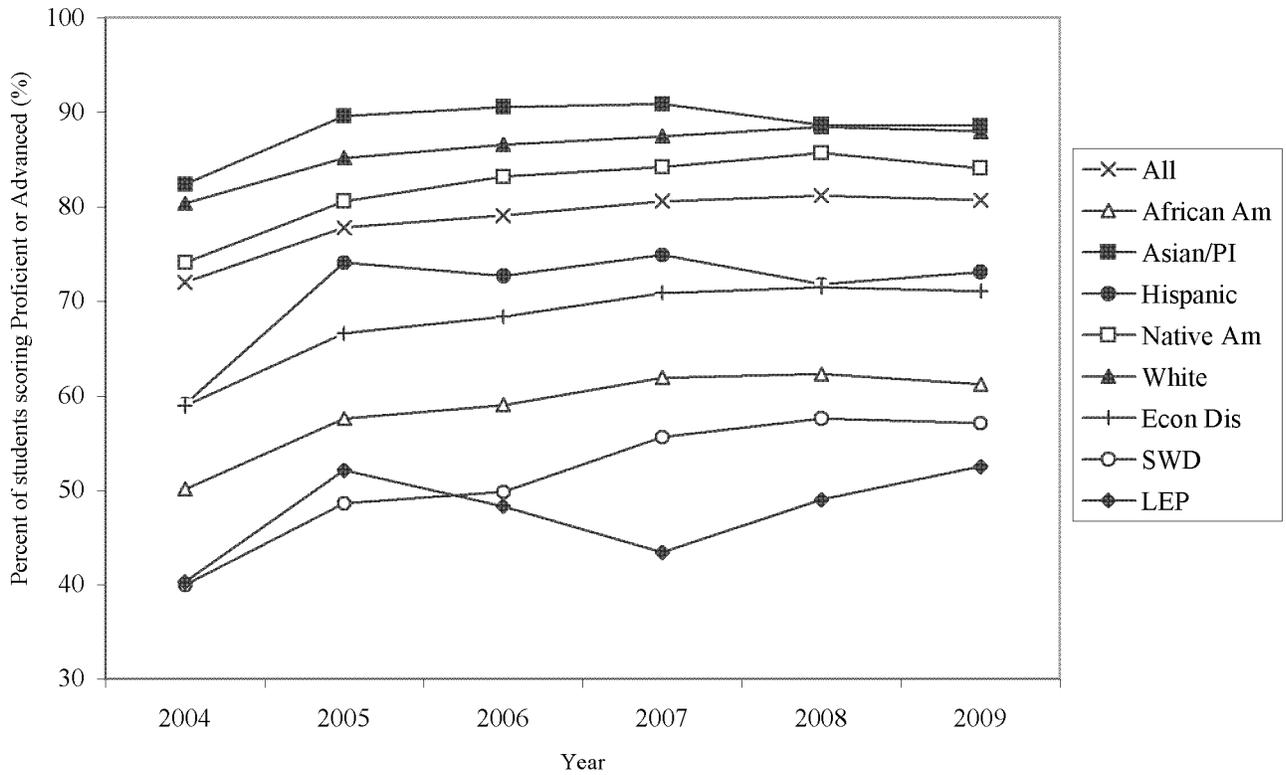


Science Achievement (Biology) for Grades 9-12: Percent of Students scoring Proficient or Advanced

Year	All	African Am	Asian/PI	Hispanic	Native Am	White	Econ Dis	SWD	LEP
2004	95.7	90.8	98.0	93.2	93.8	97.4	92.0	79.3	85.4
2005	95.2	89.3	96.8	94.1	92.0	97.3	91.4	77.4	86.2
2006	94.3	86.8	97.0	92.5	92.6	97.1	90.0	76.5	83.8
2007	94.6	87.8	96.5	91.5	95.9	97.2	90.9	78.5	77.0
2008	95.7	90.9	98.0	93.2	96.4	97.7	93.0	83.1	80.6
2009	95.7	90.9	97.8	94.2	94.9	97.7	93.3	82.5	81.6

Note: The 2003 data did not have matching subgroup data as the 2004 to 2009.

Tennessee: Science Achievement for Grades 3-8, 2004-2009

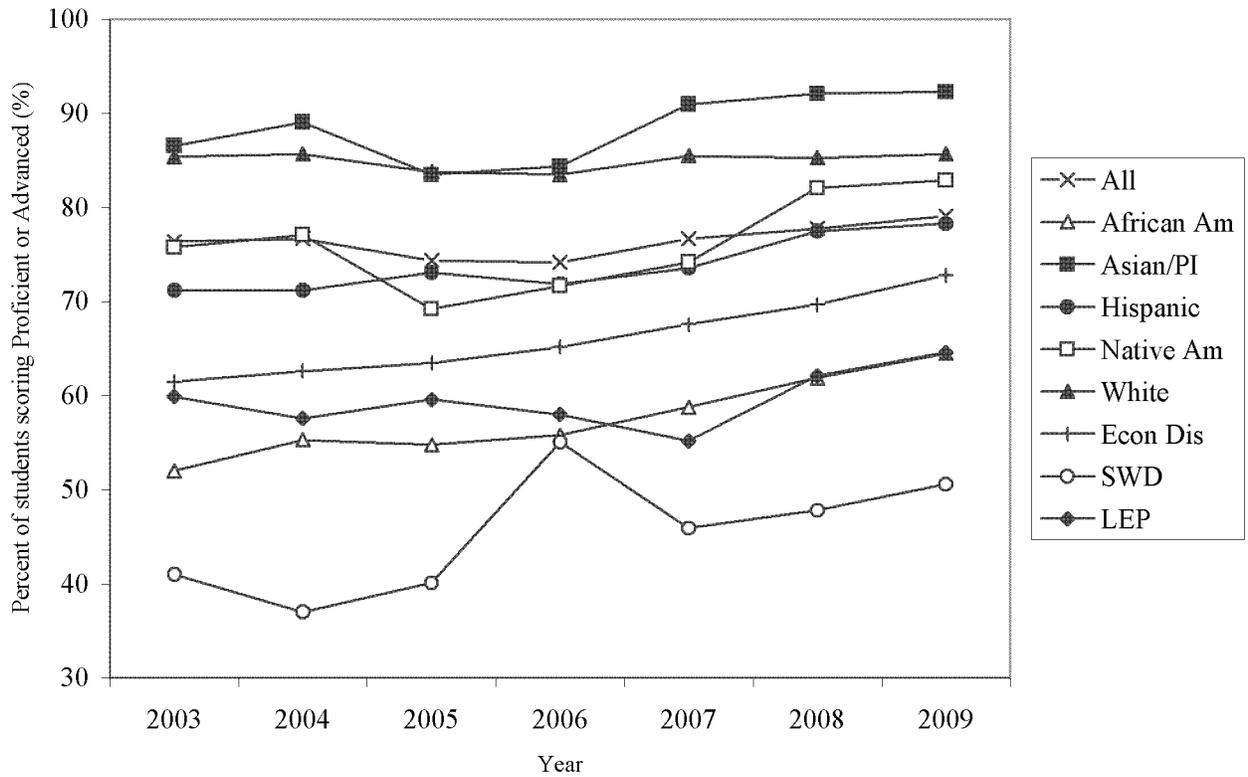


Science Achievement for Grades 3-8: Percent of Students Scoring Proficient or Advanced

Year	All	African Am.	API	Hispanic	Native Am.	White	Econ Dis	SWD	LEP
2004	72.0	50.1	82.4	59.1	74.1	80.4	58.9	40.0	40.3
2005	77.8	57.6	89.6	74.1	80.6	85.2	66.6	48.6	52.1
2006	79.1	59.0	90.6	72.7	83.2	86.6	68.4	49.8	48.3
2007	80.6	61.9	90.9	74.9	84.2	87.5	70.9	55.6	43.4
2008	81.2	62.3	88.7	71.8	85.7	88.5	71.5	57.6	49.0
2009	80.7	61.2	88.6	73.1	84.1	88.0	71.1	57.1	52.5

Note: Tennessee Criterion Referenced Test began in 2004, prior to that assessments were Norm Referenced Tests.

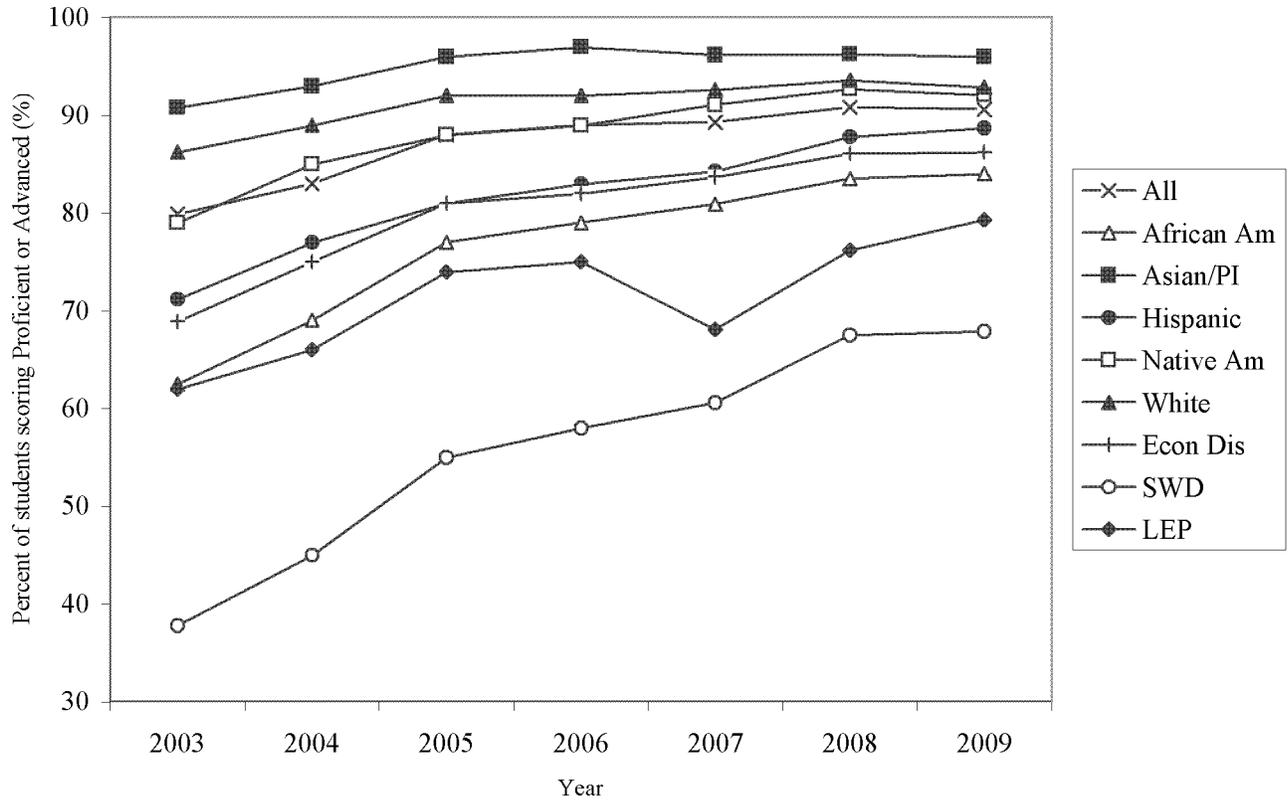
Tennessee: Math Achievement (Algebra 1) for Grades 9-12, 2003-2009



Math for Grades 9-12: Percent of Students Scoring Proficient or Advanced

Year	All	African Am	Asian/PI	Hispanic	Native Am	White	Econ Dis	SWD	LEP
2003	76.4	52.0	86.6	71.2	75.8	85.4	61.5	41.0	59.9
2004	76.7	55.3	89.1	71.2	77.1	85.7	62.6	37.0	57.6
2005	74.4	54.8	83.5	73.1	69.2	83.8	63.5	40.1	59.6
2006	74.2	55.8	84.4	71.9	71.7	83.5	65.2	55.1	58.0
2007	76.7	58.8	91.0	73.6	74.2	85.5	67.6	45.9	55.2
2008	77.8	61.9	92.1	77.5	82.1	85.3	69.7	47.8	62.1
2009	79.1	64.5	92.3	78.3	82.9	85.7	72.8	50.6	64.6

Tennessee: Math Achievement for Grades 3-8, 2003-2009

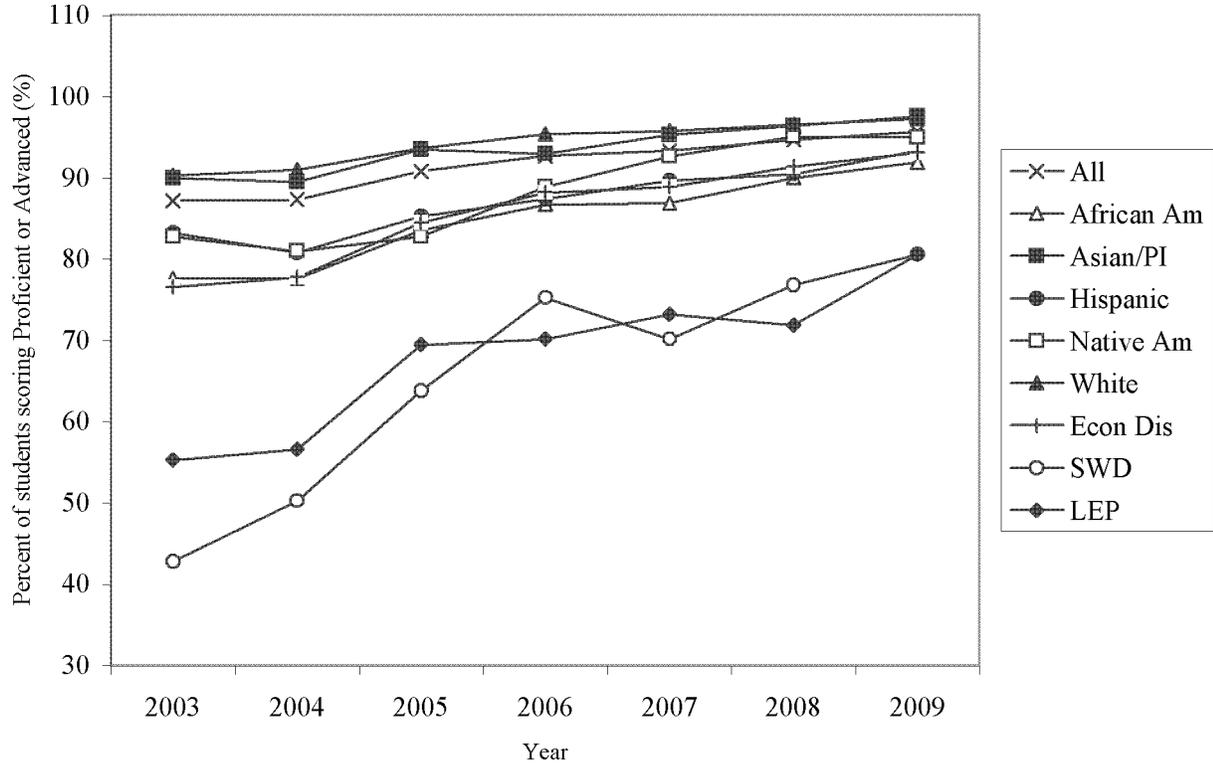


Math Grades 3-8: Percent of Students Scoring Proficient or Advanced

Year	All	African Am	Asian/PI	Hispanic	Native Am	White	Econ Dis	SWD	LEP
2003	79.9	62.5	90.8	71.2	79.0	86.2	68.9	37.8	62.0
2004	83.0	69.0	93.0	77.0	85.0	89.0	75.0	45.0	66.0
2005	88.0	77.0	96.0	81.0	88.0	92.0	81.0	55.0	74.0
2006	89.0	79.0	97.0	83.0	89.0	92.0	82.0	58.0	75.0
2007	89.3	80.9	96.2	84.3	91.1	92.6	83.7	60.6	68.1
2008	90.8	83.5	96.3	87.8	92.7	93.6	86.1	67.5	76.2
2009	90.6	84.0	96	88.7	92.1	92.9	86.2	67.9	79.3

Note: Tennessee Criterion Referenced Test began in 2004, prior to that assessments were Norm Referenced Tests.

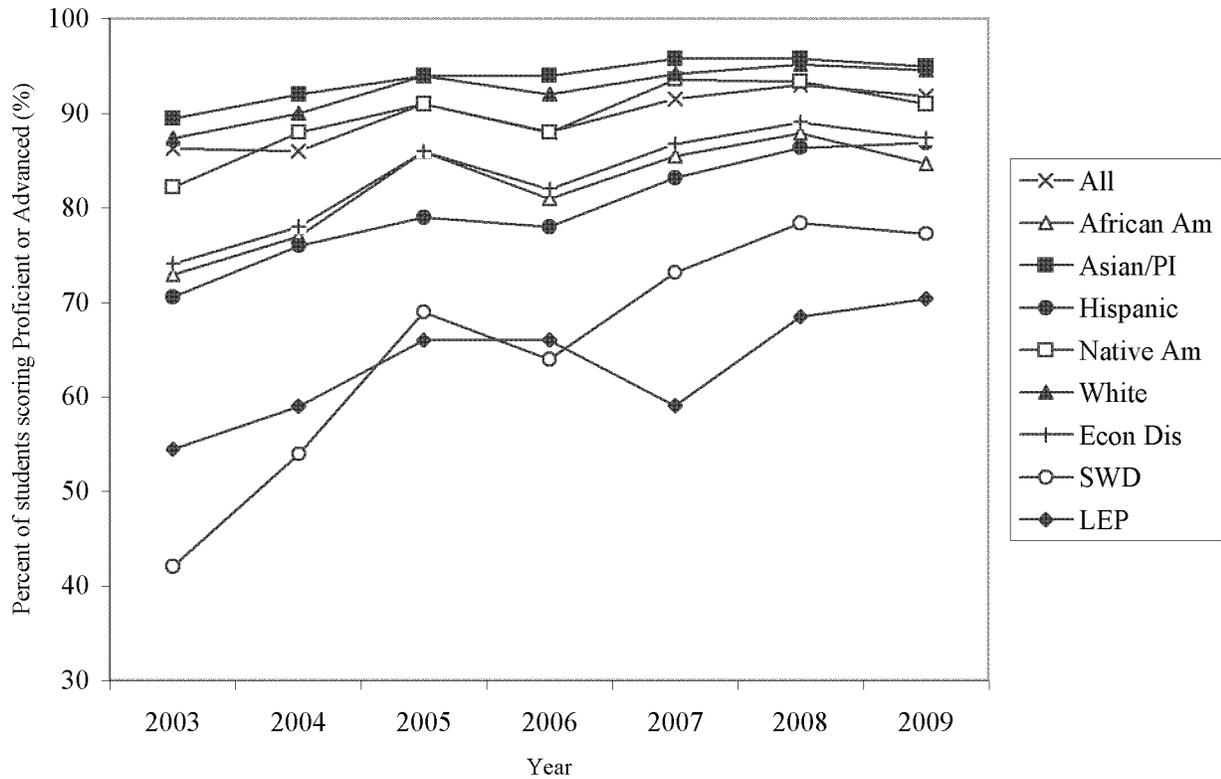
Tennessee: Reading/Language Arts Achievement (English II) for Grades 9-12, 2003-2009



Reading/Lan. Arts for Grades 9-12: Percent of Students Scoring Proficient or Advanced

Year	All	African Am	Asian/PI	Hispanic	Native Am	White	Econ Dis	SWD	LEP
2003	87.2	77.6	90.0	55.3	82.8	90.3	76.6	42.8	55.3
2004	87.3	77.6	89.5	56.6	81.0	91.0	77.8	50.3	56.6
2005	90.8	83.5	93.5	69.5	82.8	93.7	84.5	63.8	69.5
2006	92.7	86.7	93.0	70.2	88.9	95.4	88.2	75.3	70.2
2007	93.3	86.9	95.3	73.2	92.7	95.8	88.9	70.2	73.2
2008	94.7	90	96.4	71.9	95.1	96.6	91.4	76.8	71.9
2009	95.7	91.9	97.6	80.6	95	97.3	93.1	80.6	80.6

Tennessee: Reading/Language Arts for Grades 3-8, 2003-2009

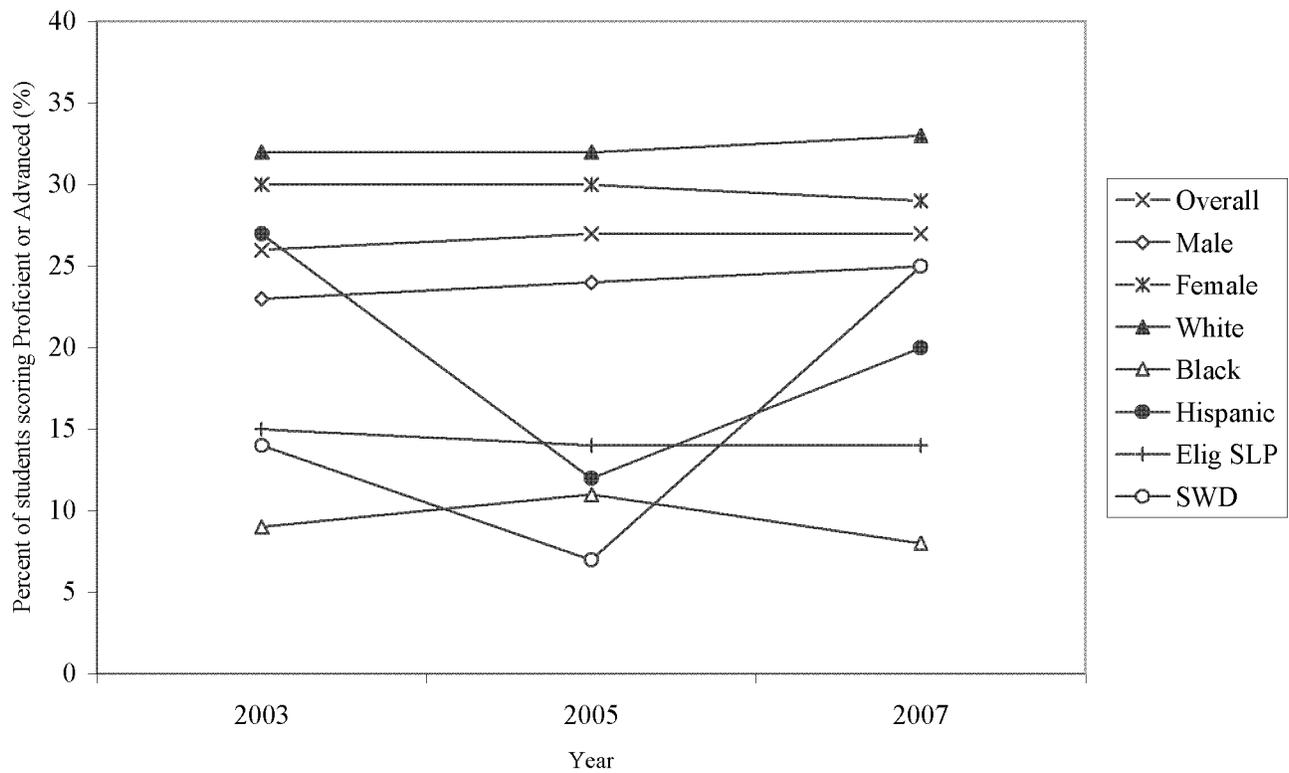


Reading/Language Arts for Grades 3-8: Percent of Students Scoring Proficient or Advanced

Year	All	African Am	Asian/PI	Hispanic	Native Am	White	Econ Dis	SWD	LEP
2003	86.3	73.0	89.5	70.6	82.2	87.4	74.1	42.1	54.5
2004	86.0	77.0	92.0	76.0	88.0	90.0	78.0	54.0	59.0
2005	91.0	86.0	94.0	79.0	91.0	94.0	86.0	69.0	66.0
2006	88.0	81.0	94.0	78.0	88.0	92.0	82.0	64.0	66.0
2007	91.5	85.5	95.8	83.2	93.6	94.2	86.8	73.2	59.1
2008	93	87.9	95.8	86.4	93.4	95.2	89.1	78.4	68.5
2009	91.8	84.7	95	86.9	91	94.6	87.4	77.3	70.4

Note: Tennessee Criterion Referenced Test began in 2004, prior to that assessments were Norm Referenced Tests.

NAEP Reading: Tennessee, Grade 4, 2003-2007



NAEP Reading: Tennessee, Grade 4: Percent of students scoring Proficient or Advanced

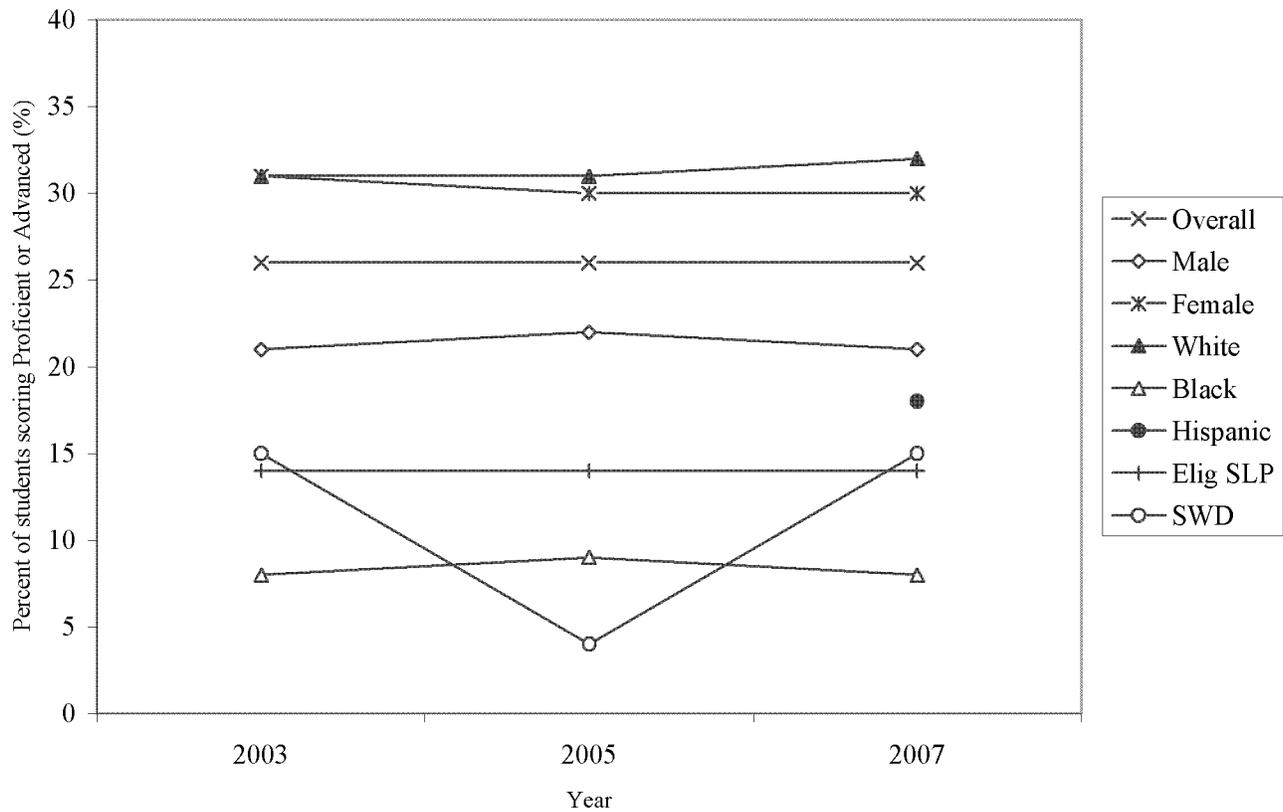
	Overall	Male	Female	White	Black	Hispanic	Elig SLP	SWD	ELL
2003	26	23	30	32	9	27	15	14	‡
2005	27	24	30	32	11	12	14	7	‡
2007	27	25	29	33	8	20	14	25	‡

‡ Reporting standards not met

Note: Reporting standards for Asian/Pacific Islander and American Indian students in TN were not met – the sample size of students was too small.

		% Identified	% Excluded	% Assessed	Total
Students with Disabilities (SD) Exclusion Rate	2003	14	4	10	28.57%
	2005	11	7	4	63.63%
	2007	16	10	6	62.50%
English Language Learners (ELL) Exclusion Rate	2003	2	1	1	50%
	2005	2	1	2	50%
	2007	2	1	1	50%

NAEP Reading: Tennessee, Grade 8, 2003-2007



NAEP Reading: Tennessee, Grade 8: Percent of students scoring Proficient or Advanced

	Overall	Male	Female	White	Black	Hispanic	Elig SLP	SWD	ELL
2003	26	21	31	31	8	†	14	15	†
2005	26	22	30	31	9	†	14	4	†
2007	26	21	30	32	8	18	14	15	†

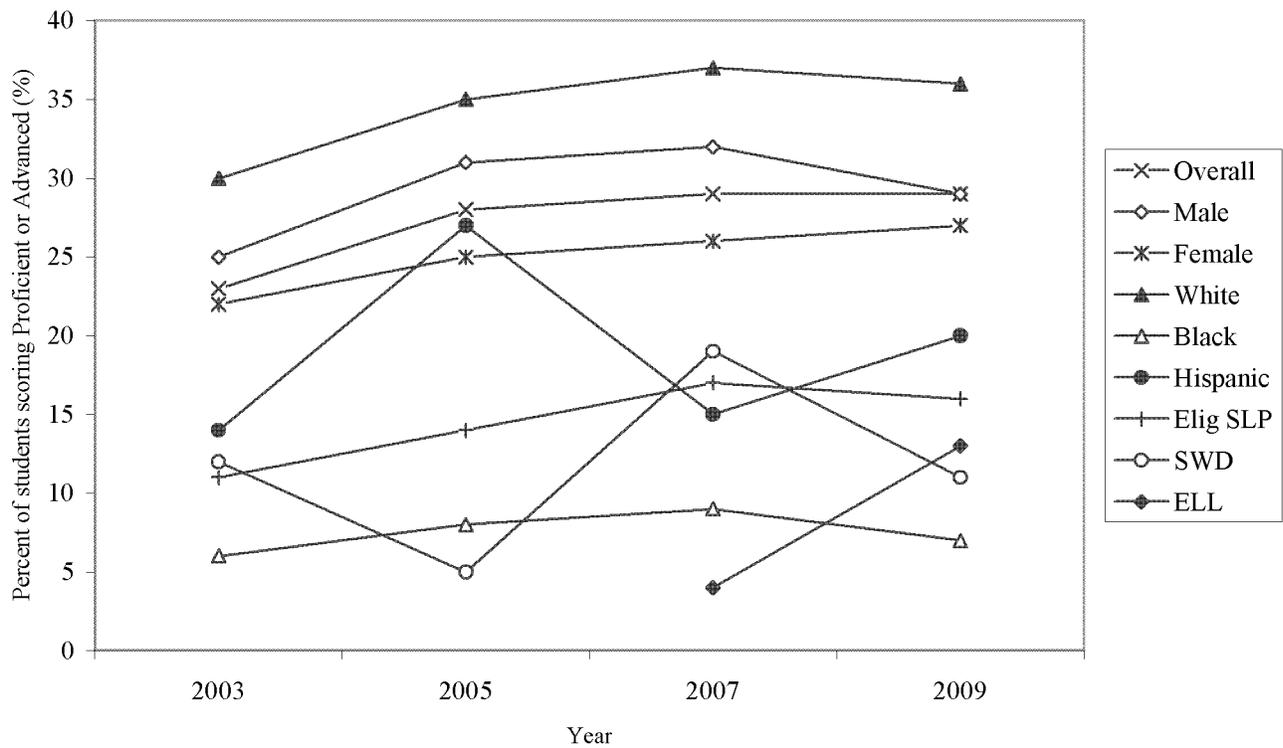
† Reporting standards not met

Note: Reporting standards for Asian/Pacific Islander and American Indian students in TN were not met – the sample size of students was too small.

		% Identified	% Excluded	% Assessed	Total
Students with Disabilities (SD) Exclusion Rate	2003	13	2	11	15.38%
	2005	12	7	5	58.33%
	2007	12	7	5	58.33%
English Language Learners (ELL) Exclusion Rate	2003	2	#	2	#
	2005	2	1	1	50%
	2007	1	#	1	#

# Rounds to Zero

NAEP Mathematics: Tennessee, Grade 4, 2003-2009



NAEP Mathematics: Tennessee, Grade 4: Percent of students scoring Proficient or Advanced

	Overall	Male	Female	White	Black	Hispanic	Elig SLP	SWD	ELL
2003	23	25	22	30	6	14	11	12	‡
2005	28	31	25	35	8	27	14	5	‡
2007	29	32	26	37	9	15	17	19	4
2009	29	29	27	36	7	20	16	11	13

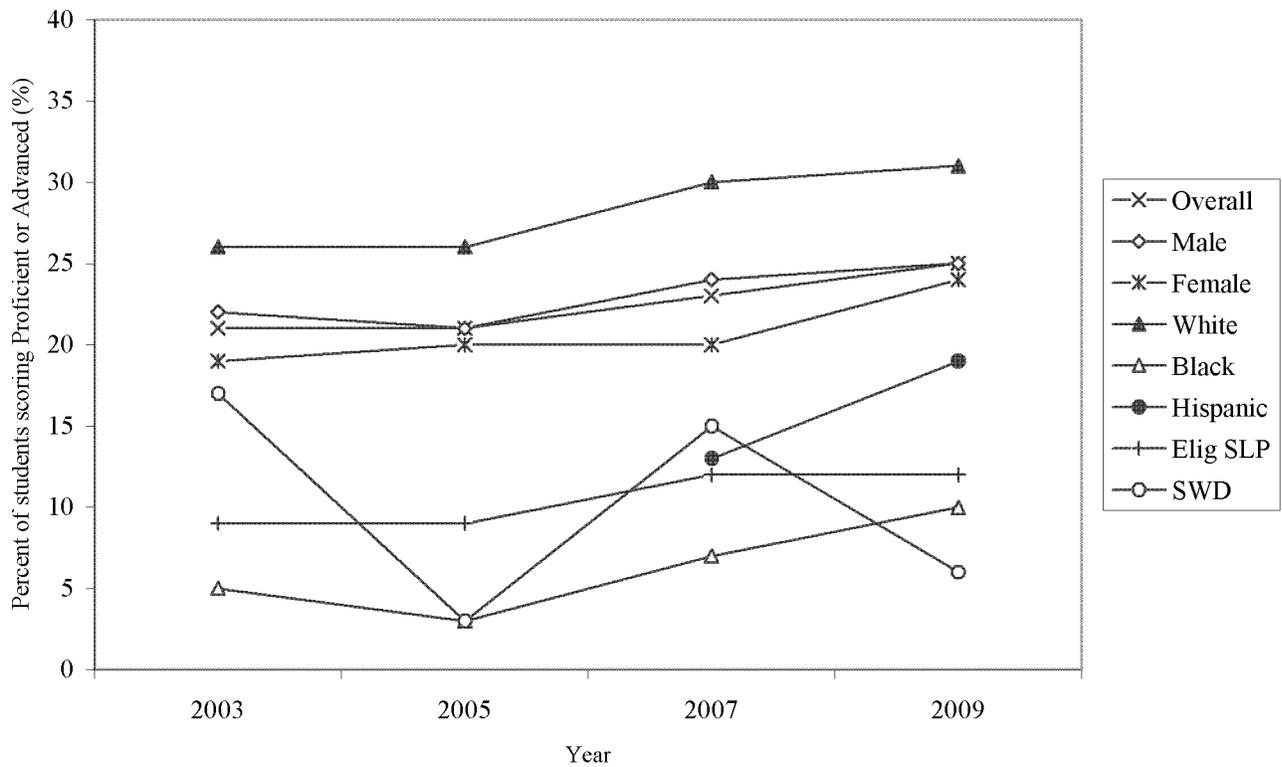
‡ Reporting standards not met

Note: Reporting standards for Asian/Pacific Islander and American Indian students in TN were not met – the sample size of students was too small.

		% Identified	% Excluded	% Assessed	Total
Students with Disabilities (SD) Exclusion Rate	2003	13	2	11	15.38%
	2005	11	3	8	27.27%
	2007	14	6	8	42.86%
	2009	14	3	10	21.42%
English Language Learners (ELL) Exclusion Rate	2003	1	#	1	#
	2005	2	1	2	50%
	2007	2	#	2	#
	2009	2	#	2	#

# Rounds to Zero

NAEP Mathematics: Tennessee, Grade 8, 2003-2009



NAEP Mathematics: Tennessee, Grade 8: Percent of students scoring Proficient or Advanced

	Overall	Male	Female	White	Black	Hispanic	Elig SLP	SWD	ELL
2003	21	22	19	26	5	†	9	17	†
2005	21	21	20	26	3	†	9	3	†
2007	23	24	20	30	7	13	12	15	†
2009	25	25	24	31	10	19	12	6	†

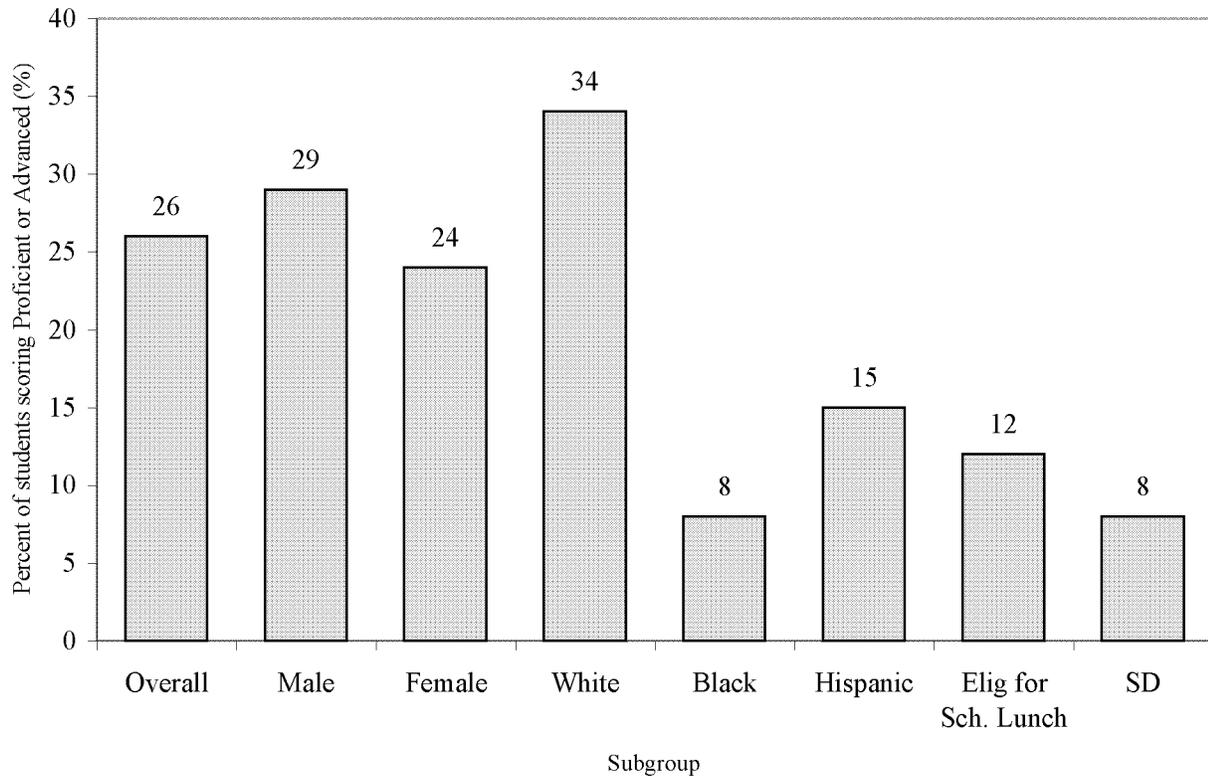
† Reporting standards not met

Note: Reporting standards for Asian/Pacific Islander and American Indian students in TN were not met – the sample size of students was too small.

		% Excluded		% Assessed	Total
		Identified			
Students with Disabilities (SD) Exclusion Rate	2003	14	3	12	21.43%
	2005	14	5	10	35.71%
	2007	12	6	5	50%
	2009	11	4	7	36.36%
English Language Learners (ELL) Exclusion Rate	2003	3	1	2	33.33%
	2005	1	#	1	#
	2007	2	#	2	#
	2009	1	#	1	#

# Rounds to Zero

NAEP Science 2005: Tennessee Grade 4



NAEP Science 2005: Tennessee Grade 4

	% Below Basic	% Basic	% Proficient	% Advanced
Overall	33	41	24	2
Male	32	39	26	3
Female	34	42	22	2
White	22	44	31	3
Black	58	34	8	#
Hispanic	51	34	15	#
Eligible for National School Lunch Program	49	38	12	#
Students with Disabilities (SD)	61	31	8	#
English Language Learners (ELL)	‡	‡	‡	‡

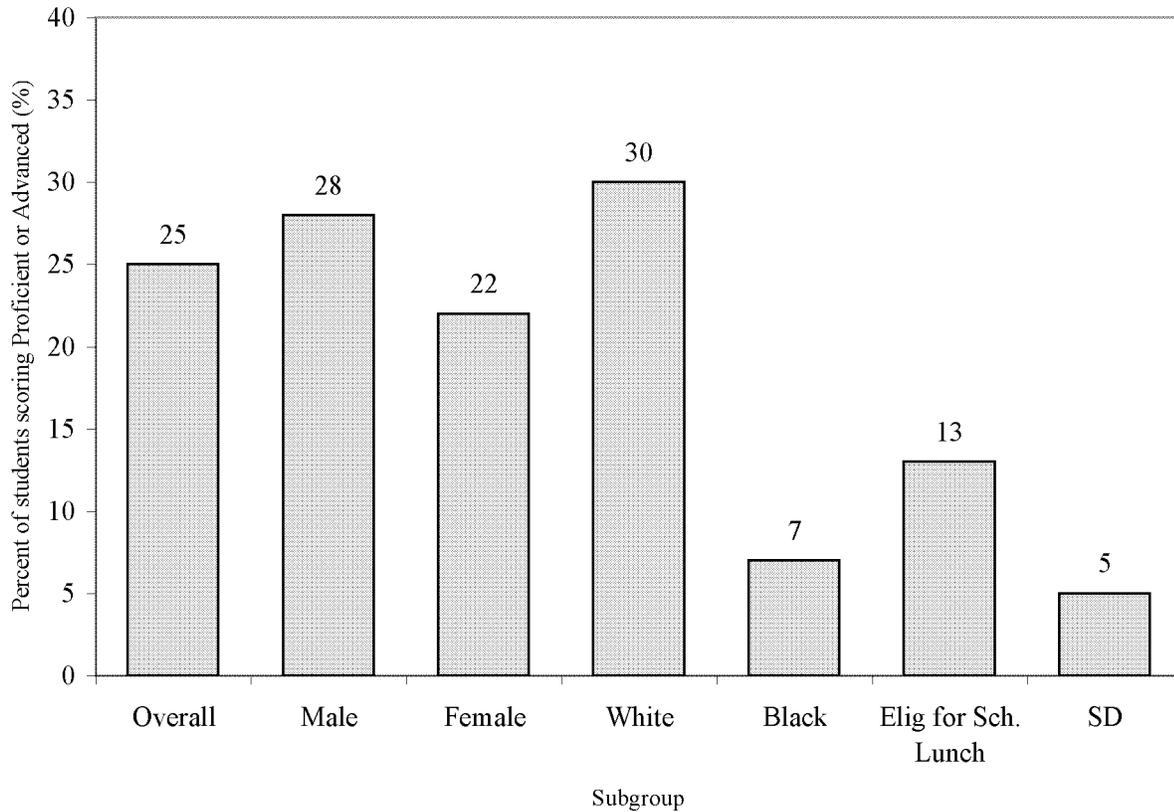
# Rounds to Zero

‡ Reporting standards not met

	% Identified	% Excluded	% Assessed	Total
Students with Disabilities (SD) Exclusion Rate	12	3	9	25%
English Language Learners (ELL) Exclusion Rate	2	1	2	50%

Note: Reporting standards for Asian/Pacific Islander and American Indian students in TN were not met – the sample size of students was too small.

NAEP Science 2005: Tennessee Grade 8



NAEP Science 2005: Tennessee Grade 8

	% Below Basic	% Basic	% Proficient	% Advanced
Overall	45	30	22	3
Male	44	28	24	4
Female	46	31	21	1
White	35	34	27	3
Black	75	18	7	#
Hispanic	‡	‡	‡	‡
Eligible for National School Lunch Program	62	26	12	1
Students with Disabilities (SD)	83	12	5	#
English Language Learners (ELL)	‡	‡	‡	‡

# Rounds to Zero

‡ Reporting standards not met

	% Identified	% Excluded	% Assessed	Total
Students with Disabilities (SD) Exclusion Rate	12	3	10	25%
English Language Learners (ELL) Exclusion Rate	1	#	1	#

Note: Reporting standards for Asian/Pacific Islander and American Indian students in TN were not met – the sample size of students was too small.

# The Everyone Graduates Center

## **Raising Graduation Rates: A Series of Data Briefs**

Progress Toward Increasing  
National and State  
Graduation Rates

Robert Balfanz  
Thomas C. West

EVERYONE  
GRADUATES

**The Everyone Graduates Center** is located at the Center for Social Organization of Schools, Johns Hopkins University.

**Robert Balfanz** is a Principal Research Scientist at CSOS and Co-Director of the Everyone Graduates Center.

**Thomas C. West** is a Senior Research Analyst at the National Opinion Research Center at the University of Chicago.

# **Raising Graduation Rates: A Series of Data Briefs**

This is the first in a series of briefs examining the progress in raising high school graduation rates over the past decade. During this period, the prevailing view on high school graduation rates has moved from the belief that essentially everyone who wanted to, or needed to, graduate from high school was doing so to the recognition that in every state there were too many communities and schools where high school graduation was not the norm. Moreover, a widespread national consensus developed that state and national graduation rates were far from where they needed to be to insure success in the 21<sup>st</sup> century. As awareness of the magnitude, scope and consequences of the nation's graduation challenge grew in the past decade, many states and communities responded with a call to action and a diversity of attempts to increase graduation rates. Has this made a difference? How far do we still have to go to graduate all students from high school prepared for college, career, and civic life?

Our first data brief looks at progress in raising graduation rates in the nation and its 50 states. Future briefs will look at progress in the nation's 50 largest cities, and among the high schools with the lowest graduation rates -- those schools we identified in prior work as "dropout factories."

In addition, in partnership with Jobs for the Future, we are working on a report that will take an in-depth look at the challenges and opportunities in 17 make-or-break states – those where continued and increased progress is necessary if the nation is to reach its graduation rate goals. Taken together, these briefs and reports and their related data profiles and data sets will provide a road map to where progress has been made, and begin to illuminate the actions behind the success, and clarify the scale, location, and characteristics of the challenges that remain. Individual data profiles on the graduation challenge and recent progress in each of the 50 states can be found at the Everyone Graduates Center's web site, [www.every1graduates.org](http://www.every1graduates.org).



# Executive Summary

How great is the nation's graduation challenge? To meet President Obama's call to graduate all students from high schools prepared for college, career, and civic life how much progress is needed, in which states, school districts and communities? This is the first in a series of data briefs aimed at answering these fundamental questions. It examines national and statewide progress in raising the high school graduation rate between 2002 and 2006. This is the most recent period for which comparable data across states is available. The period also saw growing awareness of low graduation rates and high dropout rates in many communities across the country, coupled with a marked increase in philanthropic investment and activity among states and school districts, as well as advocacy and social change organizations seeking effective responses to these challenges. What progress have we made?

## ***National Findings***

The overall national graduation rate remained essentially flat between 2002 and 2006, at approximately 74 percent.

This period did see a 3 percentage point improvement in promoting power (i.e., the timely progress of students from 9<sup>th</sup> to 12<sup>th</sup> grade). Those gains in promoting power were offset, however, by a 3 percentage point decline in the ratio of seniors to diplomas awarded (i.e., the extent to which 12<sup>th</sup> graders obtain diplomas).

There also was a near 10 percent decline in the number of high schools with weak promoting power, that is, the nation's dropout factories.

Overall, 300,000 fewer students attended weak promoting power high schools at the end of 2006 than in 2002. Gains were greatest among minority students.

## ***State Level Findings***

The mixed national picture is explained by state level trends. Some states and communities made substantial progress; others lost ground; most others mirrored the overall national trend of essentially flat rates.

Eighteen states posted gains in their graduation rates between 2002 and 2006 and in twelve states, which can serve as models for the nation, the gains were substantial.

Gains in these states ranged from an 11.2 percentage point gain in Tennessee to a 3.0 percentage point gain in New Hampshire. The 12 states (listed from largest to smallest gains) are: Tennessee, Delaware, Kentucky, South Dakota, Arkansas, Alabama, North Carolina, New York, Hawaii, Missouri, Nebraska, and New Hampshire.

Tennessee, Kentucky, Alabama, New York and North Carolina stand out as states that made good gains, produced significantly more graduates in 2006 than 2002 and saw a decline in the number of high schools with weak promoting power (the nation's dropout factories) and a gain in the number of high schools with high promoting power. This progress, however, must be tempered with the acknowledgement that except for Kentucky all of these states still have overall graduation rates below the national average.

There is wide variation across the states in the implementation of many key policy reforms advocated over the past decade. States that made improvements do not appear to share one common set of policies or practices, but all are implementing some key reforms.

Results from 2002 to 2006 indicate that in order to meet its graduation challenge the nation will need a more comprehensive approach involving federal, state, community and school projects along with the active support of parents, teachers, and students.

## **National and State Progress Toward Raising Graduation Rates 2002-2006**

This data brief focuses on national and statewide progress in raising the high school graduation rate between 2002 and 2006. This time period is both the most recent for which comparable data is available across all states and important in the nation's efforts to raise graduation rates. In the late 1990s raising graduation rates was not at the forefront of the nation's educational reform agenda. Census data seemed to indicate that graduation rates were high and that minority/majority gaps were closing, putting the nation on a trajectory to meet the Goals 2000 objective of a 90 percent graduation rate. In reality, however, graduation rates began to decline during the late 1990s and the number of high schools in which graduation was not the norm actually increased. By 2001, 20 percent of all students and nearly 40 percent of minority students attended schools that could be described as dropout factories (Balfanz and Legters, 2004).

Beginning in about 2001, the nation started to recognize that graduation rates were not as high as believed and to understand that at least some communities in every state faced what could fairly be called a dropout crisis. Over the next few years this knowledge became widespread. As a result, 2002 to 2006 saw a growing response at multiple levels to the need to increase the number of high school graduates.

Led by then-Gov. Mark Warner of Virginia, the National Governors Association declared 2005 the Year of the High School, with numerous states launching reform efforts. The governors also signed a graduation compact and agreed to implement a common method for measuring the graduation rate. During this time, a number of states implemented accurate measures of cohort graduation rates. In many cases this increased the urgency for action, as states and school districts realized, often for the first time, the extent of their graduation challenge.

The philanthropic community also turned its attention – and resources – to the graduation rate challenge during these years. Most notable in their contributions were the Bill & Melinda Gates Foundation, the Carnegie Corporation and the Open Society. These and other organizations invested more than \$2 billion in state, district, and school reform strategies and new school creation aimed at increasing high school achievement and graduation rates. Growing awareness of the extent and significance of the dropout crisis also led to a marked increase in activity among advocacy and social change organizations seeking effective policy responses to the dropout crisis and graduation rate challenge.

During this time, the federal government included graduation rates as a key accountability measure for high schools in the No Child Left Behind legislation, though effectively neutralized much of its impact by leaving it to the states to establish their own measures, goals, and rates of progress. The federal government, partly in response to criticism that the existing graduation rate measures greatly under-estimated the scope and scale of the graduation challenge, also developed an estimated graduation rate calculation that could be applied uniformly to all states. This action, combined with continued external analysis by a growing body of academics and researchers, played a key role in establishing that the nation's overall graduation rate was closer to 75 percent than to 90 percent and was considerably lower for poor and minority students. Lastly, the federal government, through the Department of Education's Small Learning Communities grant program, funneled between \$100 and \$300 million a year to school districts to help implement high school reforms aimed at increasing graduation rates, among other goals.

### ***National Graduation Rate Trends 2002-2006***

Despite this growing awareness of the graduation rate challenge and initial efforts to stem the dropout crisis, the national graduation rate appears to have remained essentially flat between 2002 and 2006, rising only from 73.6 percent in 2002 to 74.0 percent in 2006. This period, however, saw a three percentage point improvement in promoting power, the ratio of 12<sup>th</sup>-graders to 9<sup>th</sup>-graders three years prior, which provides an estimate of the extent to which students are being promoted grade to grade in high school on time. At the national level, this gain in promoting power, though, was off-set by a three percentage point decline in the ratio of seniors to diplomas awarded. One possible interpretation of this is that increased attention to the importance of on-time grade promotion led the nation to move its students from the ninth to twelfth grades in a timely fashion. Support for this can be found in a four percentage point decline in the percent of students attending high schools with weak promoting power (60% or less) and an almost ten percentage point increase in the number of students attending high schools with high promoting power (90% or more). In addition, there was about a 10 percent decline in the number of high schools with weak promoting power, that is, the nation's dropout factories.

This improvement in promoting power, however, did not at the national level translate into rising graduation rates, because of counter-trends that led to fewer 12<sup>th</sup>-graders earning diplomas. What calls for further investigation are the causes of these two off-setting trends. Did increased knowledge of 9<sup>th</sup> grade success lead to more students earning on-time promotion to 10<sup>th</sup> grade? Did higher graduation requirements lead more students

to stumble and not complete all requirements in their senior year? Or did states or school districts with fewer grade-to-grade promotion requirements -- states and districts in which years in school equal grade in school regardless of credits earned -- experience overall declines in their graduation rates?

The other critical trend in raising graduation rates between 2002 and 2006 was its uneven nature. Some states and communities made substantial progress; others lost ground; most others mirrored the overall national trend with rates remaining the same.

Progress, however, had a meaningful impact in the states and communities that experienced it. Collectively in these locales, tens of thousands of additional students, controlling for population change, graduated in 2006 compared to 2002. These improvements occurred in large cities as well as suburban and rural communities. Overall, 300,000 fewer students attended weak promoting power high schools at the end of this period than at its beginning, and the gains were greatest among minority students. It is to this progress that we now turn our attention. It has much to teach us. As the nation moves toward more comprehensive approaches to meeting its graduation rate challenge, it is important to take stock of where improvements have occurred, their magnitude, and what they have to say about the challenge that remains. Methodological details on how we measure progress in raising graduation rates can be found in the boxes on pages 4 and 5.

### ***States That Made the Most Progress in Raising Graduation Rates: 2002-2006***

For this analysis, the focus is on the 25 percent of states (the top 12) that had the greatest overall gain in graduation rates, as measured by the average freshmen graduation rate, between 2002 and 2006.

An alternative grouping could have been the 25 percent that saw the greatest net increase (controlling for population change) in the number of graduates. This grouping would have replaced four smaller states that saw larger overall gains in graduation rates (DE, SD, HI, and NE) with four larger states that saw smaller gains (IL, SC, MN, and OR). These states essentially saw a two percentage point increase in graduation rates during this period. These gains are statistically significant, as are the two percentage point gains of Wisconsin and West Virginia. This means those 18 states, or a little more than one out of three, experienced gains in their graduation rates between 2002 and 2006.

## Data and Methods Used to Analyze Progress in Raising Graduation Rates

Four years after the nation's governors signed a graduation compact and pledged to use a common measure of the graduation rate measure across all 50 states, less than 20 states have achieved this end (though a number more will soon be able to). As a result it is still not possible to compare all states, using a cohort graduation rate, which follows an entering class of first-time ninth-graders and establishes how many ultimately graduate within four years or with extra time. It is possible, however, to use estimates of both overall graduation rates and progression toward graduation to compare and analyze state progress toward raising graduation rates through 2006. The following methods and measures are used here.

**Average Freshmen Graduation Rate**-This measure was found by the U.S. Department of Education to be the graduation rate estimate that most closely approximates a cohort graduation rate, in the widest range of circumstances. It is found by dividing the total number of regular diplomas awarded in the cohort's on-time graduation year by an average of the 8th grade, 9th grade, and 10th grade enrollments of that cohort. Hence, for the Class of 2006 the number of diplomas awarded in that year is compared to the total number of students enrolled in 8<sup>th</sup> grade in 2001-02, 9<sup>th</sup> grade in 2002-03, and 10<sup>th</sup> grade in 2003-04. This method helps to control for the impact of students repeating 9th grade but ultimately graduating. Because it uses all diplomas awarded in a given year, it will capture students who are graduating on time, as well as students who are graduating early or with extra time. This means that in states where significant numbers of students graduate in five or six or more years, this measure can more closely approximate a total, rather than on-time graduation rate. The estimate is not adjusted for net in-or-out migration. Thus, it can under-estimate graduation rates in states that are losing population and over-estimate them in states that are gaining population.

**Promoting Power**-This measure compares 9<sup>th</sup>-grade enrollment to 12<sup>th</sup>-grade enrollment three years later. As such, it estimates the extent to which students are progressing from 9<sup>th</sup> grade to 12<sup>th</sup> grade on time. It is the only common estimate of progress toward high school graduation that is available at the school, as well as at the state, level. It is not possible to calculate the average freshman graduation rate for schools because data on the number of diplomas awarded is collected only at the district level. Research has shown that grade retention is a strong predictor of not graduating. Hence, states and schools with large numbers of students not progressing in a timely fashion from 9<sup>th</sup> to 12<sup>th</sup> grades, have a high probability of significant graduation rate challenges. Progress on this measure likely indicates that high schools have been able to increase the number of students who are meeting promotion requirements, and hence, have fewer students repeating grades. At both the state and school levels, the difference between 9<sup>th</sup>-grade enrollment and 12<sup>th</sup>-grade enrollment three years later also provides a decent estimate of the number of students who could need extra help to graduate. As with the average freshmen graduation rate, promoting power does

not control for net in-or-out migration.

**Ratio of 12<sup>th</sup> grade Enrollment to Diplomas Awarded**-This measure compares 12<sup>th</sup> grade enrollment in the fall to the number of diplomas awarded through the summer of the following year. This measure captures two distinct populations of non-graduates: Students who are close to meeting their graduation requirements but still do not graduate, and students who are seniors only by virtue of being enrolled in high school for four years, but still many credits shy of earning a diploma. The relative mix of these two populations in a given state largely depends on the extent of promotion requirements throughout the state's high schools. In many states, most or all students have to earn a certain number of credits, often in specific courses, to obtain 10<sup>th</sup>, 11<sup>th</sup>, or 12<sup>th</sup> grade status. In other states, these requirements are very modest or non-existent and students' official grade status is based on years in school. Some of these students become 12<sup>th</sup> graders with the credits of a 9<sup>th</sup>, 10<sup>th</sup>, or 11<sup>th</sup> grader and hence do not graduate with their class. Progress on this measure then can indicate that the high schools have gotten better at making sure more of their seniors reach the senior year close to graduation. Alternatively, it can indicate that high schools are seeing fewer students only a few credits shy of meeting graduation requirements fail to graduate, have instituted rapid summer recovery programs for seniors who are a few credits short of being able to graduate at the end of the school year, and/or are enabling more second year seniors to graduate.

**Weak Promoting Power High Schools** -In our prior research, we identified high schools where there are 60% or fewer seniors than freshmen three years earlier, as schools with weak promoting power, and high odds of graduation not being the norm. We have also shown that in most states, these high schools account for half or more of a state's non-graduates. Promoting power does not control for net in-or-out transfer at the school. So it will be less accurate in schools that experience many more students transferring out than in, or in than out. Extensive analysis, however, has shown that few schools have net in-or-out transfer rates of more than 10 percent. Thus, except for rare cases, estimated promoting power rates are typically within 5 to 10 percentage points of actual rates. Progress on this measure likely indicates that there are fewer high schools where graduation is not the norm.

**High Promoting Power High Schools**-This measure uses a promoting power rate of 90% or more to estimate the number of high schools in a state where nearly all students progress in a timely fashion from 9<sup>th</sup> to-12<sup>th</sup> grades. They are likely to have high graduation rates. This measure can be biased upward if large numbers of high schools in a state do not have significant grade progression requirements, that is, if years enrolled in school determines grade status. Examining changes in the number of high schools with promoting power of at least 90 percent, however, should be less biased, as these schools would trend upward only where grade promotion requirements have been substantially eased between 2002 and 2006.

Because each of these measures has strengths and weaknesses, the most complete picture can be assembled by using and cross-referencing all of them.

Ultimately, however, the most straightforward measure – the states that saw their graduation rates rise the most between 2002 and 2006 -- provides the most information. As seen in Table 1, 11 of the top 12 states experienced graduation rate increases from 3 to almost 7 points between 2002 and 2006. Tennessee stands out as the exception, having witnessed an 11-point increase, double the gains achieved in all but two states.

Overall, there is considerable diversity among the top states. Four of them had graduation rates in the 60s, among the lowest in the nation, in 2002 (TN, AL, NC, and NY). Five had rates among the highest, and by 2006 achieved graduation rates of 80 percent or higher (NH, NE, MO, SD, and AK). The remaining three states (DE, KY, and HI) began in the middle of the pack, somewhat below the national average, but by 2006 had climbed above it. Five of the states are among the nation's smallest in population, four are larger states, and three are in the middle. They are also geographically diverse, though it is possible to define half of them as southern or border states (TN, NC, AL, AK, MO, and KY).

Comparing gains in average freshmen graduation rates to improvement in promoting power and the ratio of 12<sup>th</sup>-graders to diplomas provides several insights. Tennessee and Delaware witnessed substantial gains in both promoting power and the percent of seniors obtaining diplomas. Hawaii, at more modest levels, also saw balanced gains across both measures. In the main, however, state improvements in raising graduation rates appear to be driven primarily by either substantial gains in promoting power (i.e., the timely progress of students from 9<sup>th</sup> to 12<sup>th</sup> grade) or in the ratio of seniors to diplomas (i.e., the extent to which 12<sup>th</sup>-graders obtain diplomas).

Graduation rate gains in Kentucky, North Carolina, New York, Missouri, and New Hampshire appear to be driven by improvement in promoting power. Whereas, the gains in Arkansas, South Dakota, and Alabama, as well as the preponderance of the gain in Tennessee, appear to be driven by the percent of 12<sup>th</sup>-graders obtaining diplomas. Some of these gains may reflect the fact that more students are arriving in 12th grade closer to meeting graduation requirements than in the past. In other words, if the states or school districts that witnessed large gains in the percent of 12<sup>th</sup>-graders obtaining diplomas did not have strong grade-to-grade promotion rates then promoting power could have witnessed limited growth, even while more students were showing up in 12th grade closer to meeting graduation requirements.

In three states (NC, MO, and NH), the impact of gains in promoting power on raising graduation rates appears to have been partially off-set by declines in the percent of

seniors receiving diplomas. In New York considerably smaller gains in the percent of seniors receiving diplomas than in promoting power may have slowed the rate of progress.

When population growth is controlled for, it becomes apparent that improvements in Tennessee and New York produced the greatest number of additional graduates, roughly 8,000 more students earning diplomas in 2006 than in 2002 in each state. Improvements in North Carolina, Kentucky, Missouri, Alabama, and Arkansas also produced consequential increases at the national level, leading to an additional 1,900 to 3,900 graduates in these states. Collectively, the less populous states of Delaware, South Dakota, Hawaii, Nebraska and New Hampshire produced an additional 2,800 graduates.

Table 1 – State Progress Toward Raising Graduates Rates from (2002 to 2006): Top 25%

State	Graduation Rate Gain (Percentage Points)	Promoting Power Gain (Percentage Points)	12 <sup>th</sup> Grade to Diplomas Ratio (Percentage Points)	Net Gain in Graduates*	Graduation Rate 2002**	Graduation Rate 2006**
Tennessee	11.2	3.8	9.6	8,000	61%	72%
Delaware	6.8	5.3	4.1	600	70%	76%
Kentucky	6.8	6.8	0.4	3,400	71%	78%
South Dakota	5.3	1.8	3.7	500	79%	85%
Arkansas	5.2	1.3	4.6	1,900	75%	80%
Alabama	4.1	2.1	3.6	2,300	62%	66%
North Carolina	3.6	5.9	-1.5	3,900	68%	72%
New York	3.5	7.3	1.8	8,400	64%	67%
Hawaii	3.4	1.6	1.9	500	72%	76%
Missouri	3.4	4.7	-1.0	2,500	78%	81%
Nebraska	3.1	2.1	0.7	700	84%	87%
New Hampshire	3.0	4.0	-0.3	500	78%	81%
United States	0.4	0.4	-3.1	40,400	74%	74%

\* Net gain in graduates was calculated by applying the Graduation Rate for 2002 to the estimated number of first-time ninth-graders in 2002-2003, and then subtracting the result from the total number of graduates in 2005-2006.

\*\* Rates for 2002 and 2006 are rounded for ease of comparison; source: Common Core of Data

Table 2 – Changes in the number of and percent of students attending Weak and High Promoting Power High Schools 2001-2006\*

State	Change in Number of Weak Promoting Power High Schools	Change in Number of High Schools with a Promoting Power Ratio of 90% or More	Percentage Point Change: Students at Weak Promoting Power High Schools	Percentage Point Change: Minority Students at Weak Promoting Power High Schools	Percentage Point Change: Students at High Schools with 90%+ Promoting Power Ratio	Percentage Point Change: Minority Students at High Schools with 90%+ Promoting Power Ratio
Tennessee	-22	38	-6	-	11	-
Delaware	2	4	-3	-5	12	12
Kentucky	-26	12	-11	-17	4	2
South Dakota	4	-2	6	5	5	6
Arkansas	0	50	0	0	17	16
Alabama	-30	15	-10	-12	3	3
North Carolina	-26	25	-12	-11	6	4
New York	-37	71	-6	-14	11	10
Hawaii	2	5	-6	-4	4	3
Missouri	7	64	-1	-5	17	12
Nebraska	1	39	8	22	7	5
New Hampshire	-1	10	0	1	15	14
United States	-184	2,008	-4	-9	10	9

- Tennessee did not report enrollment information by race/ethnicity for the 2001-2002 school year.

\* SOURCE: Common Core of Data. Figures based on comparing 3 year averages for 2000-2002 to 2005-2007.

### ***Changes in the Number and Percent of Students Attending High Schools with Weak and High Promoting Power***

Looking at changes in the number of high schools with weak (below 60%) and high (above 90%) promoting power in the states with the greatest graduation rate gains provides a more nuanced understanding of these gains. Tennessee, Kentucky, Alabama, New York and North Carolina stand out as states that made good gains, produced significantly more graduates in 2006 than 2002 and saw a decline in the number of high schools with weak promoting power (the nation’s dropout factories) and a gain in the number of high schools with high promoting power. This is important because high schools with weak promoting power are the sources of half or more of all dropouts in many states. Thus, these states appear to have made broad-based improvements resulting in fewer high schools with low graduation rates and more high schools with high graduation rates. They

also saw at least a 10 percentage point drop in minority students attending weak promoting power high schools. This progress, however, must be tempered with the acknowledgement that except for Kentucky all of these states still have overall graduation rates below the national average.

Five of the states that saw overall improvement in their graduation rates also saw an increase in the number of weak promoting power high schools. South Dakota and Nebraska saw an increase in the percent of minority students attending weak promoting power schools.

### ***Did the States with the Greatest Gains in Graduation Rates Implement a Common Set of Policies and Programs?***

An in-depth examination of why these states improved is important but beyond the scope of this brief. It is possible, however, to begin to examine if these states implemented a common set of policies or programs. The overall answer appears to be no.

As seen in Table 3, there is wide variation across these states in their implementation of many of the key policy reforms advocated during the past decade. The legal age for dropping out of school varies from 16 to 18 across the 12 states. The number of credits required for graduation ranges from 20 to 24. Only four of the states have implemented cohort graduation rate measures, following the guidelines of the NGA Graduation Rate compact. Just four have graduation exams. In terms of programs, districts within these states differed widely in applying for, and winning, Small Learning Community grants (the major federal program that supported high school reform during this period). It is noteworthy, however, that three of the states with the most significant gains -- Kentucky, North Carolina, and New York -- had the greatest number of schools winning SLC grants and Hawaii had a high concentration of its high schools involved. On the other hand, only two of the 12 states won NGA Honor Grants designed to support high school redesign.

Among the subset of states that produced the greatest number of additional graduates, there is evidence that it is possible to raise standards, increase accountability and have more students graduate. Tennessee, Alabama and New York have graduation exams, and Tennessee increased the challenge of its exams while it was experiencing significant gains in its graduation rates. Alabama has among the most stringent graduation credit requirements in the nation -- four credits in each of the major subjects and 24 credits overall.

Table 3 – Educational Reforms as of 2006 in the Top 25% of States Making Progress toward Raising Graduation Rates

State	NGA Grant Recipient	Number of Districts/School Awards Under SLC Grant, 2006	Uses NGA Compact Graduation Rate, 2006	Uses High School Graduation Exams, 2006	Legal Dropout Age	Math Credits Needed for Graduation	Total Credits Needed for Graduation
Tennessee	No	5 Districts/ 18 Schools	No	Yes	17	3	20
Delaware	Yes	1 District/ 3 Schools	Yes	No	16	3	22
Kentucky	No	9 Districts/ 35 Schools	No	No	16	3	22
South Dakota	No	1 District/ 3 Schools	No	No	16	3	22
Arkansas	Yes	6 Districts/ 9 Schools	Yes	No	17	4	22
Alabama		2 Districts/ 2 Schools	No	Yes	16	4	24
North Carolina	No	26 Districts/ 64 Schools	Yes	No*	16	4	20
New York	No	32 Districts/ 77 Schools	Yes	Yes	16	3	22
Hawaii	No	5 Districts/ 20 Schools	No	No	18	3	22
Missouri	No	7 Districts/ 11 Schools	No	No	16	2	22
Nebraska	No	7 Districts/ 13 Schools	No	No	18	Local Decision	
New Hampshire	No	2 Districts/ 3 Schools	No	No	16	3	20

\* In NC in 2006 students had to pass 8th grade competency tests to graduate, and took end of course exams in core subjects, but passing the end of course exams was not a requirement for graduation.

SOURCE for SLC Awards: Smaller Learning Communities Awards Database on the Department of Education Website. <http://slcprogram.ed.gov/cgi-bin/mysql/slcawards.cgi?l=summary-locale> and <http://slcprogram.ed.gov/cgi-bin/mysql/slcawards.cgi?l=summary-state>. It appears that each grant (even if given to a particular district more than once) counted as a new district receiving that money. Although the total may list a higher number of districts, this is because each district is listed once, even if it received multiple awards. All of the awards and years are separated under the district name.

SOURCE for Graduation Requirements: [http://nces.ed.gov/programs/statereform/res\\_tab3.asp](http://nces.ed.gov/programs/statereform/res_tab3.asp)

SOURCE for Legal Dropout Age: [http://nces.ed.gov/programs/digest/d07/tables/dt07\\_157.asp?referrer=list](http://nces.ed.gov/programs/digest/d07/tables/dt07_157.asp?referrer=list) SOURCE: Common Core of Data. Figures based on comparing 3 year averages for 2000-2002 to 2005-2007.

## ***The Case of Tennessee***

Among the states that saw the largest graduation rate gains and the greatest increase in graduates, North Carolina, New York and Kentucky will perhaps come as no surprise. All three have had well-known and active high school reform agendas at state and/or local levels. Tennessee, however, which had the largest overall graduation rate increase, and produced the second greatest number of additional graduates, has not been on the national reform radar screen to the same extent. This brings up the obvious question of what did Tennessee do to bring about such a significant increase in its graduation rate and number of graduates. At this point, the best that we can do is raise questions, and highlight some potential areas for further exploration.

Tennessee witnessed gains in both promoting power and the ratio of 12<sup>th</sup>- graders to diplomas with the biggest increase in the latter measure. Inspection of more detailed information from the state's education department shows a marked decline in the number of students earning special education diplomas and certificates of attendance during this period. This suggests that some of the increase in 12<sup>th</sup>- graders earning regular diplomas was the result of more special education students receiving regular rather than special education diplomas, and fewer students overall earning certificates of attendance. At most, however, this movement from special education to regular diplomas could explain about 2 to 3 points of the overall 11-point growth. The more detailed state level data, moreover, shows that the graduation rate increase experienced between 2002 and 2006 continues through 2008.

About a third of the overall increase in diplomas awarded appears to have occurred in Memphis. Among the issues worthy of exploration is that in the late 1990s Memphis was one of several cities that embraced the notion of using externally developed school reform models district-wide. Although the effort was ultimately discontinued and evaluations demonstrated mixed impacts on raising standardized achievement, it is notable that students who experienced elementary and middle grade reforms in the late 1990s reached the age of high school graduation between 2002 and 2006.

Hamilton County also experienced substantial improvements in its graduation rate, coinciding with a notable district-wide high school reform effort. The overall impact on increases in the state's graduation rate, however, is somewhat muted by the district's relatively small size.

Given that the state's gains appear to be driven by substantial gains in the number of 12-graders receiving diplomas, efforts aimed at students who are close to meeting graduation requirements but not convinced of the value of a diploma deserve deeper examination. These include the Jobs for Tennessee's Graduates program, which works to connect students to employment and further education, by providing supports to 12<sup>th</sup>-graders to insure graduation and post-secondary schooling or employment. During this era, the program was recognized by its national parent organization, for its high success rate, with the 2,000 12<sup>th</sup>-graders enrolled each year posting a 90 percent-plus graduation rate. Other examples were model efforts in Kingsport and Sullivan counties in which local government paid high school graduates' tuition at the local community college.

At the policy level, the Tennessee legislature passed a driver's license law in 2001, which revoked the licenses of 16- and 17-year-olds for at least one semester if they did not pass

four courses or dropped out. In 2000 the state department of education was required to establish and implement a comprehensive statewide strategy to assist districts and schools in addressing the dropout problem, include stakeholders in the development of the strategy, and build upon existing programs and initiatives that worked. In 2006 the governor committed the state to raising its graduation rate to 90 percent by 2012.

It is essential to note that no evidence links any of these programs or policy changes to improvements in Tennessee's graduation rate. Similar programs and policies can be found in states that did not see equivalent improvements in graduation rates. The factors that ultimately led to improvements in Tennessee may be significantly tied to the particular context of the state. But what even a cursory examination of Tennessee points out is that the answer will not be found in a single program or policy change, but in the combination of multiple local and state efforts. That the 12 states that made the most progress do not appear to have used a common set of practices and policies further points out that context matters and graduation rates are not improved through a single program or policy but through a multiplicity of efforts at multiple levels within a state. At the same time, the fact that a dozen states did witness significant improvements signals that even when comprehensive efforts to improve graduation rates were not the norm, progress was possible.

### ***The Challenge Ahead***

Finally, examining progress in raising graduation rates through 2006, as well as the levels achieved, can provide a baseline for the current period and its ambitions for more comprehensive efforts to improve the nation's graduation rate. As such, outcomes in 2006 enable us to paint a picture of the scope, magnitude, and location of the challenge states and the nation face in meeting the call to graduate all students from high school prepared for college, career, and civic life. As noted before, a profile of the graduation challenge, as well as data on the level of recent progress, for each of the nation's 50 states can be found at the Everyone Graduates Center's web site at [www.every1graduates.org](http://www.every1graduates.org).

Looking collectively across these profiles, as well as the national profile, we can see the following:

- Each year there are approximately 1.2 million ninth-graders who likely need additional supports to graduate. Recent progress in on-track indicators shows that many of these students can be identified before they enter, or soon after they begin, high school, enabling a shift from reactive to active support systems and school reforms.

- About 250,000 students enrolled as seniors annually do not receive diplomas by the following summer. Some are only a few credits shy of graduation and represent both a tragic loss and the potential for quick gains. Others likely need alternative and multiple pathways to graduation.
- In the 12 least populous states, only 2,000 to 4,000 9<sup>th</sup>-graders need additional supports each year and only 1,000 to 2,000 12<sup>th</sup>-graders do not receive diplomas that year. This suggests that even at the state level it should be possible to monitor the progress of these students and continually evaluate the success of the supports provided, ultimately targeting the needed level of support to each student. It also suggests that while these states are geographically dispersed, establishing a learning network between them may hasten both their individual and collective ability to succeed. For example, current efforts in New Hampshire may have much to offer states with similar numbers of students in need of support or alternatives pathways to graduation.
- Iowa, Minnesota, Nebraska, and Wisconsin are within striking distance of achieving 90 percent graduation rates, though no state has yet to achieve this rate. Improvements from 2002 to 2006 though did lead to at least 19 states having graduation rates of approximately 80 percent or higher.
- Some of the states, with relatively higher graduation rates, however, have seen essentially no progress since 1998.
- For the nation to meet its graduation rate challenge, significant improvements will need to continue or begin in 17 to 20 states with the greatest number of dropouts, the most intense concentration of weak promoting power high schools, and/or fewer graduates than their share of high school students. These make-or-break states are the focus of a forthcoming report by Jobs for the Future and the Everyone Graduates Center.
- As whole the nation made more progress in increasing the number of high schools with high promoting power (90% or more) than in decreasing the number of high schools with weak promoting power (60% or less).
- Some states, however, made notable progress in decreasing their number of weak promoting power high schools. Learning more about how this occurred is essential.
- There were also significant improvements (10 percentage points) in both the percent of minority students attending high promoting power schools and not attending weak promoting power schools.

***Conclusion: The Need to Move from Sporadic Effort to Comprehensive and Sustained Action.***

What the analysis of national and state level progress between 2002 and 2006 shows is that the nation's initial response to its recognition of a graduation rate challenge was not sufficient. The nation as a whole did not move forward, and only one out of three states made measurable progress. The states that did progress show that improvement, indeed substantial improvement, is possible. They challenge other states to match or exceed their efforts.

The good news is the nation is responding. The last few years have seen both an acceleration of efforts and the beginning of more comprehensive approaches. It has also become clear that the federal government needs to play a more active role. At the close of 2008 the U.S. Department of Education issued regulations aimed at greatly increasing graduation rate accountability. All states must employ accurate graduation rate measures by 2012, establish ambitious graduation rate goals, and require substantial and continuous progress toward those goals for all students as well as subgroups. President Obama has made it a national mission to insure that all students graduate from high school prepared for, and then enroll in, post-secondary schooling or advanced career training. Federal legislation is pending to transform or replace the 15 percent of high schools that produce half the nation's dropouts, as well as the middle schools that feed them. There are also bills that call for supportive national service, integrated student support, and educational innovations.

A much broader spectrum of the nation is getting involved in insuring that all students graduate from high school. The dropout crisis is no longer seen as simply a school problem. The national service movement has identified the dropout crisis as one of the key areas where national service can be employed to help solve an urgent national priority. Growing numbers of social change organizations, including the United Way, City Year, Communities In Schools and the Boys and Girls clubs, have made the nation's graduation rate one of their core missions. The America's Promise Alliance has launched an ambitious national effort to galvanize community efforts to end the dropout crisis by sponsoring dropout prevention summits in all 50 states and 55 cities. The Department of Labor has launched several initiatives aimed at increasing graduation rates in medium and large cities and public health professionals have recognized dropout prevention as a key to community well-being.

Both the National Council of State Legislators and the National League of Cities are seeking solutions to the nation's graduation challenge. The National Governors Association's Best

Practices Center has launched fresh initiatives in Dropout Prevention and School Improvement. These growing community efforts are driven by the twin realization that the nation's graduation rate crisis must and can be solved. Emerging evidence-based and innovative practices in school reform, multiple pathways to graduation, and new schools, as well as dropout prevention and early warning and intervention systems, provide an increased repertoire of tools to drive improvement.

Lastly, there is consensus that simply increasing high school graduation rates is not enough. For the nation to prosper and for all citizens to partake in the prosperity, all students need to graduate prepared for college or challenging career training. The nation's governors are responding. More states are joining efforts like the American Diploma Project aimed at establishing accountability and assessment systems linked to internationally benchmarked college and career readiness standards. With federal assistance they are also making major investments in new and improved data systems that will enable better monitoring of student progress, as well as continuous improvements in reform efforts.

What this brief demonstrates is that a subset of states can also provide important insights into what it will take for the nation to overcome its graduation rate crisis. We need to learn more about how New York, North Carolina, and Kentucky combined accountability, support and intervention to push their rates forward; how Alabama combined progress with higher standards, and how Arkansas pushed its graduation rate to 80 percent. We also need to learn much more in particular about Tennessee, as well as the other states that moved forward, when the nation as a whole did not.

## Reference

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# Tennessee Race to the Top Appendix B-1-1

Draft/For Discussion Only/April 28, 2009

## The Council of Chief State School Officers and The National Governors Association Center for Best Practices

### Common Core Standards Memorandum of Agreement

**Purpose.** This document commits states to a state-led process that will draw on evidence and lead to development and adoption of a common core of state standards (common core) in English language arts and mathematics for grades K-12. These standards will be aligned with college and work expectations, include rigorous content and skills, and be internationally benchmarked. The intent is that these standards will be aligned to state assessment and classroom practice. The second phase of this initiative will be the development of common assessments aligned to the core standards developed through this process.

**Background.** Our state education leaders are committed to ensuring all students graduate from high school ready for college, work, and success in the global economy and society. State standards provide a key foundation to drive this reform. Today, however, state standards differ significantly in terms of the incremental content and skills expected of students.

Over the last several years, many individual states have made great strides in developing high-quality standards and assessments. These efforts provide a strong foundation for further action. For example, a majority of states (35) have joined the American Diploma Project (ADP) and have worked individually to align their state standards with college and work expectations. Of the 15 states that have completed this work, studies show significant similarities in core standards across the states. States also have made progress through initiatives to upgrade standards and assessments, for example, the New England Common Assessment Program.

**Benefits to States.** The time is right for a state-led, nation-wide effort to establish a common core of standards that raises the bar for all students. This initiative presents a significant opportunity to accelerate and drive education reform toward the goal of ensuring that all children graduate from high school ready for college, work, and competing in the global economy and society. With the adoption of this common core, participating states will be able to:

- Articulate to parents, teachers, and the general public expectations for students;
- Align textbooks, digital media, and curricula to the internationally benchmarked standards;
- Ensure professional development to educators is based on identified need and best practices;
- Develop and implement an assessment system to measure student performance against the common core; and
- Evaluate policy changes needed to help students and educators meet the common core standards and “end-of-high-school” expectations.

An important tenet of this work will be to increase the rigor and relevance of state standards across all participating states; therefore, no state will see a decrease in the level of student expectations that exist in their current state standards.

#### Process and Structure

- **Common Core State-Based Leadership.** The Council of Chief State School Officers (CCSSO) and the National Governors Association Center for Best Practices (NGA Center) shall assume responsibility for coordinating the process that will lead to state adoption of a common core of standards (see attached timeline). These organizations represent governors and state commissioners of education who are charged with defining K-12 expectations at the state level.

As such, these organizations will facilitate a state-led process to develop common core standards in English language arts and mathematics that are:

- Fewer, clearer, and higher, to best drive effective policy and practice;
  - Aligned with college and work expectations, so that all students are prepared for success upon graduating from high school;
  - Inclusive of rigorous content and application of knowledge through high-order skills, so that all students are prepared for the 21<sup>st</sup> century;
  - Internationally benchmarked, so that all students are prepared for succeeding in our global economy and society; and
  - Research and evidence-based.
- **National Validation Committee.** CCSSO and the NGA Center will create an expert validation group that will serve a several purposes, including validating end-of-course expectations, providing leadership for the development of K-12 standards, and certifying state adoption of the common core standards. The group will be comprised of national and international experts on standards. Participating states will have the opportunity to nominate individuals to the group. The national validation committee shall provide an independent review of the common core standards. The national validation committee will review the common core as it is developed and offer comments, suggestions, and validation of the process and products developed by the standards development group. The group will use evidence as the driving factor in validating the common core standards.
- **Develop End-of-High-School Expectations.** CCSSO and the NGA Center will convene Achieve, ACT and the College Board in an open, inclusive, and efficient process to develop a set of end-of-high-school expectations in English language arts and mathematics based on evidence. We will ask all participating states to review and provide input on these expectations. This work will be completed by July 2009.
- **Develop K-12 Standards in English Language Arts and Math.** CCSSO and the NGA Center will convene Achieve, ACT, and the College Board in an open, inclusive, and efficient process to develop K-12 standards that are grounded in empirical research and draw on best practices in standards development. We will ask participating states to provide input into the drafting of the common core and work as partners in the common core standards development process. This work will be completed by December 2009.
- **Adoption.** The goal of this effort is to develop a true common core of state standards that are internationally benchmarked. Each state adopting the common core standards either directly or by fully aligning its state standards may do so in accordance with current state timelines for standards adoption not to exceed three (3) years.

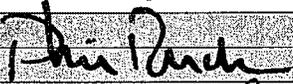
This effort is voluntary for states, and it is fully intended that states adopting the common core standards may choose to include additional state standards beyond the common core standards. States that choose to align their standards to the common core standards agree to ensure that the common core represents at least 85 percent of the state's standards in English language arts and mathematics.

Further, the goal is to establish an ongoing development process that can support continuous improvement of this first version of the common core standards based on research and evidence-

based learning and can support the development of assessments that are aligned to the common core standards across the states, for accountability and other appropriate purposes.

- **National Policy Forum.** CCSSO and the NGA Center will convene a National Policy Forum (Forum) comprised of signatory national organizations (e.g., the Alliance for Excellent Education, Business Roundtable, National School Boards Association, Council of Great City Schools, Hunt Institute, National Association of State Boards of Education, National Education Association, and others) to share ideas, gather input, and inform the common core standards initiative. The forum is intended as a place for refining our shared understanding of the scope and elements of a common core; sharing and coordinating the various forms of implementation of a common core; providing a means to develop common messaging between and among participating organizations; and building public will and support.
  
- **Federal Role.** The parties support a state-led effort and not a federal effort to develop a common core of state standards; there is, however, an appropriate federal role in supporting this state-led effort. In particular, the federal government can provide key financial support for this effort in developing a common core of state standards and in moving toward common assessments, such as through the Race to the Top Fund authorized in the American Recovery and Reinvestment Act of 2009. Further, the federal government can incentivize this effort through a range of tiered incentives, such as providing states with greater flexibility in the use of existing federal funds, supporting a revised state accountability structure, and offering financial support for states to effectively implement the standards. Additionally, the federal government can provide additional long-term financial support for the development of common assessments, teacher and principal professional development, other related common core standards supports, and a research agenda that can help continually improve the common core standards over time. Finally, the federal government can revise and align existing federal education laws with the lessons learned from states' international benchmarking efforts and from federal research.

**Agreement.** The undersigned state leaders agree to the process and structure as described above and attest accordingly by our signature(s) below.

Signatures	
Governor:	
Chief State School Officer:	

## Core Standards for Reading, Writing, and Speaking and Listening

The Core Standards identify essential college- and career-ready skills and knowledge in reading, writing, and speaking and listening across the disciplines. While the English language arts classroom has often been seen as the proper site for literacy instruction, this document acknowledges that the responsibility for teaching such skills must also extend to the other content areas. Teachers in the social and natural sciences, the humanities, and mathematics need to use their content-area expertise to help students acquire the discipline-specific skills necessary to comprehend challenging texts and develop deep knowledge in those fields. At the same time, English language arts teachers not only must engage their students in a rich array of literature but also must help develop their students' ability to read complex works of nonfiction independently.

What is taught is just as important as how it is taught; the Core Standards should be accompanied by a comprehensive, content-rich curriculum. While this document defines the outcomes all students need to reach to be college and career ready, many important decisions about curriculum will necessarily be left to states, districts, schools, teachers, professional organizations, and parents. For example, while the standards require that students read texts of sufficient complexity, quality, and range, this document does not contain a required reading list. If states and districts choose to develop one, they should look at the Reading Exemplars provided here to get a sense of the level of complexity students must be able to handle independently when they read. Educators can also model their efforts on reading lists from around the nation and the world as long as the texts ultimately included meet the range and content standards in this document.

Standards today must ready students for competition and collaboration in a global, media-saturated environment. Colleges and universities have become international meetinghouses where people from across the globe learn with and from one another. At the same time, business today is truly a worldwide enterprise. Media-related technology helps shape what goes on in both college and the workplace; indeed, it has in some important ways reshaped the very nature of communication. Students who meet the Core Standards will have the reading, writing, speaking, and listening skills to flourish in the diverse, rapidly changing environments of college and careers.

Although reading, writing, and speaking and listening are articulated separately in the standards that follow, these divisions are made for the sake of clarity and manageability. In reality, the processes of communication are tightly interrelated and often reciprocal. The act of reading can no more be separated from the written word than the act of listening can be from the spoken word. When reading, students demonstrate their comprehension most commonly through a spoken or written interpretation of the text. As students solve problems, share insights, and build the

knowledge they need for college and career success, they draw simultaneously on their capacities to read, write, speak, and listen.

## Student Practices in Reading, Writing, and Speaking and Listening

The following practices in reading, writing, and speaking and listening undergird and help unify the rest of the standards document. They are the “premises”—broad statements about the nature of college and career readiness in reading, writing, and speaking and listening—that underlie the individual standards statements and cut across the various sections of the document. Every idea introduced here is subsequently represented in one or more places within the larger document.

\* \* \*

*Students who are college and career ready exhibit the following capacities in their reading, writing, and speaking and listening:*

1. *They demonstrate independence as readers, writers, speakers, and listeners.*

Students can, without significant scaffolding or support, comprehend and evaluate complex text across a range of types and disciplines, and they can construct effective arguments and clearly convey intricate or multifaceted information. Likewise, students are independently able to discern a speaker’s key points as well as ask questions and articulate their own ideas.

2. *They build strong content knowledge.*

Students build a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They demonstrate their ability to become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and the specific in-depth expertise needed to comprehend subject matter and solve problems in different fields. They refine their knowledge and share it through substantive writing and speaking.

3. *They respond to the varying demands of audience, task, purpose, and discipline.*

Students consider their reading, writing, and speaking and listening in relation to the contextual factors of audience, task, purpose, and discipline. They appreciate nuances, such as how the composition and familiarity of the audience should affect tone. They also know that different disciplines call for different types of evidence (e.g., documentary evidence in history, experimental evidence in the natural sciences).

4. *They comprehend as well as critique.*

Students are engaged and open-minded—but skeptical—readers and listeners. They work diligently to understand precisely what an author or speaker is saying, but they also question an author’s or speaker’s assumptions and assess the veracity of claims.

5. *They privilege evidence.*

Students cite specific textual evidence when offering an oral or written interpretation of a piece of writing. They use relevant evidence when supporting their own points in writing and speaking, making their reasoning clear to the reader or listener, and they constructively evaluate others' use of evidence.

6. *They care about precision.*

Students are mindful of the impact of specific words and details, and they consider what would be achieved by different choices. Students pay especially close attention when precision matters most, such as in the case of reviewing significant data, making important distinctions, or analyzing a key moment in the action of a play or novel.

7. *They craft and look for structure.*

Students attend to structure when organizing their own writing and speaking as well as when seeking to understand the work of others. They understand and make use of the ways of presenting information typical of different disciplines. They observe, for example, how authors of literary works craft the structure to unfold events and depict the setting.

8. *They use technology strategically and capably.*

Students employ technology thoughtfully to enhance their reading, writing, speaking, and listening. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

## **Introductory Evidence Statement for Reading, Writing, Speaking and Listening Standards**

To develop college- and career-ready standards for Reading, Writing, and Speaking and Listening that are rigorous, relevant, and internationally benchmarked, the work group consulted evidence from a wide array of sources. These included standards documents from high-performing states and nations; student performance data (including assessment scores and college grades); academic research; frameworks for assessments, such as NAEP; and results of surveys of postsecondary instructors and employers regarding what is most important for college and career readiness.

The evidence strongly suggests that similar reading, writing, speaking, and listening skills are necessary for success in both college and the workplace. A review of the standards of high-performing nations also suggests that many of these skills are already required in secondary schools internationally. The work group has endeavored to articulate these skills in the Core Standards, focusing educators, students, parents, and resources on what matters most.

Given that a set of standards cannot be simplistically “derived” from any body of evidence, the work group sometimes relied on reasoned judgment to interpret where the evidence was most compelling. For example, there is not a consensus among college faculty about the need for incoming students to be able to comprehend graphs, charts, and tables and to integrate information in these data displays with the information in the accompanying text. Although some evidence suggests that this skill is critical in the workplace and in some entry-level courses, college faculties from the various disciplines disagree on its value (with science and economics faculty rating it more highly than English and humanities professors do). The work group ultimately included a standard on the integration of text and data because the preponderance of the evidence suggests the skill’s importance in meeting the demands of the twenty-first-century workplace and some college classrooms.

In most cases, the evidence is clearer. In writing, for example, there is unequivocal value placed on the logical progression of ideas. The expectation that high school graduates will be able to produce writing that is logical and coherent is found throughout the standards of top-performing countries and states. This ability is also valued highly by college faculty and employers. In response to such clear evidence, the work group included Writing student performance standard #5: “Create a logical progression of ideas or events and convey the relationships among them.”

A bibliography of some of the sources we drew upon most is included at the end of this document. We also refer the reader to the Core Standards Web site (<http://www.corestandards.org>), which contains a similar bibliography (with links

to full documents where available) as well as lists of standards linked to relevant sources of evidence.

Finally, while the standards reflect the best evidence available to date, the decisions the work group made are necessarily provisional. The core should be reexamined periodically as additional research on college and career readiness emerges. Indeed, this document may serve as an agenda for such research.

## How to Read the Document

This document is divided into three main sections: strands, applications, and supporting materials.

### Strands

There are three *strands*: Reading, Writing, and Speaking and Listening. Although each strand is presented discretely for ease of understanding, the document should be considered a coherent whole.

The three strands are each in turn divided into two sections: *Standards for Range and Content* and *Standards for Student Performance*.

#### Standards for Range and Content

The Standards for Range and Content in each strand describe the contexts in which college- and career-ready students must be able to read, write, speak, and listen. Rather than merely supplement or illustrate the numbered list of Standards for Student Performance, the Standards for Range and Content are themselves required and carry equal force.

#### Standards for Student Performance

The Standards for Student Performance in each strand enumerate the essential skills and understandings that students who are college and career ready in reading, writing, and speaking and listening must have no later than the end of high school.

### Applications

The clearest examples of the integrated nature of communication are the *Applications of the Core* for Research and Media. The Core Standards for Reading, Writing, and Speaking and Listening have been designed to include the essential skills and knowledge that students need to apply to college and career tasks, such as research and media. Rather than having an additional set of standards that would largely duplicate those already in Reading, Writing, and Speaking and Listening, the document includes the Research and Media applications that draw upon standards already in those strands. This both reaffirms the centrality of the core processes of reading, writing, speaking, and listening and shows how those processes can be combined and extended to describe key communicative acts in the classroom and workplace.

In the Research and Media applications, specific Reading, Writing, and Speaking and Listening standards are identified with a letter corresponding to the relevant strand (R for Reading, W for Writing, and S&L for Speaking and Listening) and a number or letter corresponding to the statement within that strand. For example, R-14 refers to the fourteenth statement in the Standards for Student Performance in Reading,

and W-A refers to the first statement of the Standards for Range and Content in Writing.

# English Language Arts

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K-12



## Introduction

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The *Standards for English Language Arts K–12* are the culmination of an extended, broad-based effort to fulfill the charge issued by the states to create the next generation of English language arts (ELA) standards. Its companion document, *Standards for Literacy in History and Science 6–12*, extends the same principle to communication skills in other content areas. The present work, led by the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA), builds on the foundation laid by states in their decades-long work on crafting high-quality education standards. The *Standards* also draw upon the most important international models as well as research and input from numerous sources, including scholars, assessment developers, professional organizations, and educators from kindergarten through college. In their design and content, the *Standards* represent a synthesis of the best elements of standards-related work to date and an important advance over that previous work.

As specified by CCSSO and NGA, the *Standards* are (1) research and evidence based, (2) aligned with college and work expectations, (3) rigorous, and (4) internationally benchmarked. A particular standard was to be included in the document only when the best available evidence indicated that its mastery was essential for students to be college and career ready in a twenty-first-century, globally competitive society. As new and better evidence emerges, the *Standards* will be revised accordingly.

The *Standards* are an extension of a prior initiative led by CCSSO and NGA to develop college and career readiness (CCR) standards in reading, writing, and speaking and listening as well as in mathematics. The CCR Reading, Writing, and Speaking and Listening Standards, released in draft form in September 2009, served as a touchstone for the present work. While the format, structure, content, and purpose of that earlier document differ in some ways from this document, the basic aims and concepts are clearly connected. The main difference is that while the earlier CCR document defined a goal toward which education efforts should aim—college and career readiness for all students—the current document describes the progressive development of skills and understandings across the grades necessary for all students to reach that goal. Just as feedback on the September 2009 CCR draft has greatly influenced the design and development of the K–12 standards, so too will the response to the K–12 standards help guide subsequent revisions to the CCR standards. In their final forms, both documents—CCR and K–12—will be tightly aligned and mutually supporting.

While the *Standards* treat college and career readiness for all students as the end point—an ambitious goal in its own right—many students will reach this point before the end of high school. For them, advanced work in literature, composition, language, history, science, and so on should be available. It is beyond the scope of the *Standards* to describe what such advanced work should consist of, but it needs to provide the next logical step up from the college and career readiness baseline established here.

As a natural outgrowth of meeting the charge to define college and career readiness, the *Standards* also lay out a vision of what it means to be a literate person in the twenty-first century. Indeed, the skills and understandings students must demonstrate have broad applicability outside of the classroom or workplace. The *Standards* insist upon the sort of close, attentive reading that is at the heart of understanding and appreciating the aesthetics of literature. They require the sort of critical reading that is necessary to sift carefully through the staggering amount of information available today in print and online. They demand the sort of wide, deep, and thoughtful engagement with high-quality literary and informational text that builds knowledge, enlarges experience, and broadens world views. They mandate the sort of cogent reasoning and use of evidence that is essential to both private deliberation and responsible citizenship in a democratic republic. In short, they promote the development of skills in reading, writing, speaking, and listening that are the foundation for any creative and purposeful expression in language.

## Key design considerations

### *A blend of cross-cutting and specific standards*

The Reading, Writing, and Speaking and Listening strands include two levels of standards. The cross-cutting Core Standards are the same across the two *Standards* documents, their commonality emphasizing the broad responsibility within the school for meeting the standards and also facilitating schoolwide professional development. Then there are specific Standards that are unique to a given content area, which respects the particular demands of reading, writing, speaking, and listening in ELA and in other disciplines.

### *A focus on results rather than means*

The *Standards* define what all students must learn, not everything that teachers are allowed to teach. By focusing on required achievements, the *Standards* leave room for teachers, curriculum developers, and states to determine how those goals should be reached and what additional topics should be addressed. The *Standards* require, for example, that all students be able to produce writing in a variety of situations, including those that allow time for revision. The *Standards* do not, however, specify a particular writing process that students must use (although certain elements common to process-writing approaches, particularly revision, are embedded in the requirements). Teachers are thus freed—and obligated—to provide students with whatever tools and knowledge their professional judgment and experience identify as most helpful for those assignments that allow for multiple drafts. Similarly, the *Standards*, with their emphasis on observable outcomes, do not enumerate various metacognitive strategies that students may need to use to monitor and direct their thinking and learning.

### *Shared responsibility for literacy*

The *Standards for English Language Arts K–12* and the *Standards for Literacy in History and Science 6–12* together establish the requirement that instruction in reading, writing, speaking, listening, and language use be a shared responsibility. The *Standards* present reading instruction in K–5 as fully integrative, including a rich blend of narratives, drama, poetry, and informational text. ELA-specific instruction in grades 6 and above includes fiction, poetry, and drama but also a particular form of informational text: literary exposition and argument (e.g., speeches, essays, and historical documents with significant cultural importance and literary merit). Teachers in other content areas must use their unique disciplinary expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language use in their respective field. Progress toward college and career readiness and building a rich knowledge base require that at least half of the reading students do must focus on history, science and related disciplines. This distributed approach honors the unique place of English language arts instruction in literacy development while ensuring that students have communication skills tailored to the demands of other disciplines. It also reflects the reality that students must communicate effectively in a wide range of disciplines, not just ELA.

### *Grade bands to describe growth, grades to focus instruction*

Evidence consulted in creating the *Standards* suggests that beyond the earliest grades, major developments in students' literacy skills typically occur across spans of grades rather than within individual grades. This document stays true to that evidence by organizing standards after grade 3 into multiyear bands (grades 4–5, 6–8, 9–10, and 11–CCR). At the same time, the work of educating students does proceed on a day-to-day, year-to-year basis. Any standards document must therefore provide guidance to educators on what each year's instruction and assessment should look like. To make the grade specific focuses for instruction clear, after the descriptions of the standards in each area of ELA, we provide a one page summary of the grade specific focuses for each grade from fourth grade onwards, including how the grade specific focus in each area relates to the grade band requirements. The *Standards* offer that focus through several grade-specific elements:

- Single-grade standards in many areas of kindergarten and grades 1, 2, and 3
- Text complexity expectations in Reading, beginning at grade 2
- Areas of focus in Writing, beginning at grade 4

- Areas of focus in the Conventions section of Language Development, beginning at grade 4

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### *Research and media skills integrated into the standards as a whole*

To be ready to meet the challenges of the twenty-first century, students need a mix of the communication skills that have served literate people for millennia and new competencies necessary in an information- and media-saturated world. To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, report on, and create a high volume and extensive range of print and nonprint texts in media forms old and new. Just as the need to research and to consume and produce media are embedded into every element of today's curriculum, so too are the associated skills and understandings embedded throughout the *Standards* rather than treated separately. Web links to sample media texts are included selectively among the reading text exemplars in Appendix B to reinforce the point that print and online materials can be used together instructionally to enhance students' understanding.

### *An integrated model of English language arts*

Although the *Standards* divide the English language arts into Reading, Writing, Speaking and Listening, and Language Development strands for conceptual purposes, the processes of communication are in theory and practice an undivided whole. As illustrated in the graphic that introduces each grade or grade band and as embodied in the content of the standards themselves, reading, writing, speaking, listening, and language development are tightly interrelated and often reciprocal.

## Central features of the document

### *Reading and Literature: Text complexity and the growth of comprehension*

As students advance through the grades, they must be able to handle independently texts of steadily increasing complexity and be able to gain more from what they read. Beginning formally at grade 2, the *Standards* specify what proportion of texts students read should be within grade band and, at some grades, above grade band. (Additional material in Appendix A of the *Standards* defines and explains text complexity in more detail.) Whatever texts they are reading, students must also show a steadily increasing ability to discern more from and make fuller use of text. This means, for example, finding and making an increasing number of connections among ideas and between texts; considering a wider range of textual evidence; and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts. The *Standards* place growing demands on students' comprehension at each higher grade or grade band to ensure that all students are college- and career-ready readers no later than the end of high school.

### *Writing and Research: Text types, grade-level focuses, and research*

While some writing skills, such as the ability to reflect audience, purpose, and task in what one writes, are important for many types of writing, others are more properly part of writing in specific text types: narrative, informative and explanatory text, and argument. Beginning at grade 4, the *Standards* specify the sorts of writing over extended and shorter timeframes that students in each grade must be able to produce in response to sources. Although conducting research calls upon reading, speaking, listening, and language skills, writing is typically central to analyzing information and presenting findings. The *Standards* pair writing and research to signal that close connection.

### *Speaking and Listening: Flexible communication*

Including but not limited to skills necessary for formal presentations, the Speaking and Listening strand requires students to develop a range of broadly useful oral communication and interpersonal skills: listening attentively, participating productively, exchanging information, and speaking effectively. Students must learn to sift through and evaluate multiple points of view; listen thoughtfully in order to build on and constructively question the ideas of others while contributing their own ideas; and, where appropriate, reach agreement and common goals through teamwork.

### *Language Development: Conventions and vocabulary*

The Conventions standards in the Language Development strand include the essential “rules” of formal written and spoken English, but they also approach language as a matter of craft and informed choice among alternatives. Thus, standards pertaining to grammar and usage, mechanics, and the fundamentals of language and writing are accompanied by standards on word choice and style. The Vocabulary standards focus both on understanding words and their nuances and on acquiring new words through conversation and reading and by being taught them directly. Rather than require that students use one particular skill or another to determine a word’s meaning, the Vocabulary standards insist only that students get the proper meaning, with the means (context, word analysis, and so on) to be chosen flexibly based on the situation.

### *Appendices*

The *Standards* include a range of supporting materials that help explain and enrich the main document:

- Appendix A contains a model of text complexity, including both qualitative and quantitative measures of how easy or hard a text is to read, as well as supplementary statements about instruction in writing, language conventions, and vocabulary
- Appendix B consists of text exemplars at all grades/bands to illustrate appropriate complexity and quality in the text types required by the Reading standards
- Appendix C consists of annotated writing samples to show how grade- or grade-band-appropriate writing embodies the relevant Writing standards

*January 2010*

## Student Practices in Reading, Writing, Speaking, Listening, and Language Use

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The following Student Practices in reading, writing, speaking, listening, and language use undergird and help unify the rest of the *Standards*. The Student Practices are not themselves standards: every idea introduced here is subsequently represented in one or more places within the larger document. They are, rather, the “premises”—broad statements about the nature of college and career readiness in reading, writing, speaking, listening, and language use—that underlie the individual standards and cut across the various sections of the document.

\* \* \*

As students progress toward being college and career ready, they exhibit with increasing fullness and regularity the following capacities in their reading, writing, speaking, listening, and language use:

### **1. They demonstrate independence as readers, writers, speakers, listeners, and language users.**

Students can, without significant scaffolding or support, comprehend and evaluate complex text across a range of types and disciplines, and they can construct effective arguments and clearly convey intricate or multifaceted information. Likewise, students are independently able to discern a speaker’s key points as well as ask questions, build on others’ ideas, and articulate their own ideas. They apply language conventions without prompting. On their own, they determine the meaning of words in context and acquire and use new words.

### **2. They build strong content knowledge.**

Students build a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They demonstrate their ability to become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and the discipline-specific expertise needed to comprehend subject matter and solve problems in different fields. They refine their knowledge and share it through substantive writing and speaking.

### **3. They respond to the varying demands of audience, task, purpose, and discipline.**

Students consider their reading, writing, speaking, listening, and language use in relation to the contextual factors of audience, task, purpose, and discipline. They appreciate nuances, such as how the composition and familiarity of the audience should affect tone and how the connotations of words affect meaning. They also know that different disciplines call for different types of evidence (e.g., documentary evidence in history, experimental evidence in the sciences).

### **4. They comprehend as well as critique.**

Students are engaged and open-minded—but skeptical—readers and listeners. They work diligently to understand precisely what an author or speaker is saying, but they also question an author’s or speaker’s assumptions and assess the veracity of claims.

### **5. They privilege evidence.**

Students cite specific evidence when offering an oral or written interpretation of a text. They use relevant evidence when supporting their own points in writing and speaking, making their reasoning clear to the reader or listener, and they constructively evaluate others’ use of evidence.

## **6. They care about precision.**

Students are mindful of the impact of specific words and details, and they consider what would be achieved by different choices. Students pay especially close attention when precision matters most, such as in the case of reviewing significant data, making important distinctions, or analyzing a key moment in the action of a play or novel.

## **7. They craft and look for structure.**

Students attend to structure when organizing their own writing and speaking as well as when seeking to understand the work of others. They understand and make use of the ways of presenting information typical of different disciplines. They observe, for example, how authors of literary works craft the structure to unfold events and depict the setting.

## **8. They use technology strategically and capably.**

Students employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

## **9. They come to understand other perspectives and cultures.**

Students appreciate that the twenty-first-century classroom and workplace are diverse settings in which people from often widely divergent backgrounds must learn and work together. They actively seek to understand other perspectives and cultures through reading and listening. They do not simply adopt other points of view as their own but rather evaluate them critically and constructively. Literature can play a special role in expanding students' horizons in this way: through reading great classic and contemporary works, students can vicariously inhabit worlds and experiences much different than their own.

## English Language Learners

The *Standards* articulate rigorous grade-level expectations in the areas of speaking, listening, reading and writing to prepare students to be college and career ready. English language learners (ELLs) must be held to the same high standards expected of students who are already proficient in English. However, because these students are acquiring English language proficiency and content area knowledge concurrently, some students will require additional time and all will require appropriate instructional support and aligned assessments.

ELLs are a heterogeneous group with differences in ethnic background, first language, socio-economic status, quality of prior schooling, and levels of English language proficiency. Effectively educating these students requires adjusting instruction and assessment in ways that consider these factors. For example ELLs who are literate in a first language that shares cognates with English can apply first-language vocabulary knowledge when reading in English; likewise ELLs with high levels of schooling can bring to bear conceptual knowledge developed in their first language when reading in a second language. On the other hand, ELLs with limited or interrupted schooling will need to acquire background knowledge prerequisite to educational tasks at hand. As they become acculturated to US schools, ELLs who are newcomers will need sufficiently scaffolded instruction and assessments to make sense of content delivered in a second language and display this content knowledge.

While some ELLs are economically and educationally advantaged, this is not the case for many of these students. Moreover, once in the U.S., the majority of ELLs attend high poverty schools with high percentages of other ELLs. These schools often lack the resources and capacity needed to help ELLs reach high academic standards. However, schools and districts can be assisted in providing a positive learning environment that capitalizes on the linguistic and cultural diversity of the student body.

To help ELLs meet high academic standards in reading, writing, speaking, listening and language use it is essential that ELLs have access to:

- The requisite coursework to prepare them for post-secondary education or the workplace;
- Coursework that is made comprehensible for students learning content in a second language, through specific pedagogical techniques and additional resources;
- Teachers, as well as school-level and district personnel, who are well prepared and qualified to support English-language learners;
- Well designed opportunities for classroom discourse and interaction to enable ELLs to develop communicative strengths in language arts
- Speakers of English who know the language well enough to provide the ELLs with models and support; and
- Ongoing assessment and feedback to guide learning.

It is also worth noting that instruction for these students is additionally guided by language proficiency standards that language arts teachers can use in conjunction with the English language arts standards to help ELLs become fully proficient and literate in English.

## Access for Students with Disabilities

The *Standards* articulate rigorous expectations in the areas of reading, writing, speaking, listening, and language use in order to prepare students to be college and career ready. These standards identify the knowledge and skills students must acquire in order to be successful. Research shows that students with disabilities are capable of high levels of learning and should not be limited by low expectations and watered down curriculum. The vast majority of this population of students, including students with intellectual impairments,<sup>1</sup> *can* achieve proficiency when they receive high-level instruction and accommodations. It is imperative that these highly capable students—regardless of their disability—are held to the same expectations articulated in the Core Standards as other students.

However, *how* these high standards are taught is of the utmost importance in reaching students with special needs. When acquiring the knowledge and skills represented in the Core Standards, students with disabilities may need accommodations<sup>2</sup> or—in exceptional cases—modified goals, incorporated in an individualized education program (IEP),<sup>3</sup> to help them access information or demonstrate their knowledge. In instances when a standard asks students to perform actions they are physically incapable of, students will need to be presented with alternative options to demonstrate similar knowledge and skills within the range of their abilities. Accommodations based on individual needs allow students of all disability levels to learn within the framework of the *Standards*.

### Meeting English Language Arts (ELA) Standards

Reading, writing, speaking, listening, and language use standards—given the nature of the standards themselves—often require accommodations for students with disabilities. For example, a standard that calls for “listening” should be interpreted to include reading sign language. “Speaking” should be read broadly to include “communication” or “self-expression.” “Reading” should allow for students’ use of Braille, screen reader technology, or other assistive devices to demonstrate comprehension skills. In a similar vein, “writing” should not preclude the use of a scribe, computer, or speech-to-text technology. With appropriate accommodations and support, students with all levels of disabilities can participate in the general education curriculum and achieve grade-level proficiency with regard to the ELA content and skills articulated in the *Standards*.

In short, while the *Standards* set and retain high expectations for all students, they may need to be translated and occasionally modified to apply appropriately to students with disabilities, including all levels of intellectual impairment. Promoting a culture of high expectations for all students is a fundamental goal of the *Standards*. Achieving this goal requires the inclusion of students with disabilities.

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<sup>1</sup> Less than two percent of the population of all students and less than 20% of the population of students with disabilities.

<sup>2</sup> See the Council of Chief State School Officers, (2003). *Training District and State Personnel on Accommodations: A Study of State Practices, Challenges, and Resources* at <http://www.ccsso.org/publications/details.cfm?PublicationID=221> for further explanation and evidence around accommodations.

<sup>3</sup> According to the Individuals with Disabilities Act (IDEA), an IEP includes appropriate accommodations that are necessary to measure the individual achievement and functional performance of a child.

# How to Read This Document

The *Standards* are divided into an ELA-specific document (*Standards for English Language Arts K–12*) and a literacy document for history and science (*Standards for Literacy in History and Science 6–12*). The ELA document includes standards for and examples of history and science reading in K–5.

The ELA-specific document is organized by grade (kindergarten and grades 1, 2, and 3) and grade band (grades 4–5, 6–8, 9–10, and 11–CCR). The *Standards for Literacy in History and Science* are organized by grade band (grades 4–5, 6–8, 9–10, and 11–CCR). Each grade/band is divided into strands—Reading, Writing, Speaking and Listening, and Language Development.

While all strands contain standards statements, each strand also has its own specific features.

## Reading and Literature (ELA)/Reading (History/ Science)

Kindergarten and grade 1 begin with the **mix of key text types (A)**, which identifies the genres and subgenres of reading material appropriate for each grade. This is followed by a list of **illustrative texts (B)** in the key text types. This list is suggestive of the sorts of texts appropriate for the grade in terms of complexity and quality; excerpts appear in Appendix B.

Grades 2, 3, 4–5, 6–8, 9–10, and 11–CCR include this information immediately after a graphic specifying **required text complexity by grade (C)**—in brief, the proportion of texts within and above grade band that students must read each year. (For example, 70% of the texts that grade 3 students read should

come from the grades 2–3 text complexity band, while the other 30% should come from the grades 4–5 band.) An overview of the method for **determining text complexity (D)** in the particular grade band follows. (A fuller treatment is provided in Appendix A.)

All grades/bands organize standards under a number of boxed subheadings (e.g., “Grasping specific details and key ideas”). The standards at all grade levels are divided into cross-cutting **Core Standards (E)**, which are numbered and applicable to many types of reading, and more specific **Standards (F)**, which are lettered and organized by text type (e.g.,

“Narratives, Drama, and Poetry”). Kindergarten and grades 1, 2, and 3 also include boxed sections of **reading foundations (G)**, which enumerate basic concepts of print and other foundational skills in reading that very young students must acquire.

Mix of Key Text Types for Grade 1			
<b>Narrative</b> In the first, include children's adventure stories, fairytales, fables, legends, myths, folktales, fables, legends, myths, folktales, and more.	<b>Drama</b> In the first, include simple dialogues and brief dramatic scenes.	<b>Poetry</b> In the first, include simple rhymes, poems, and the subjects of historical poems, legends, and fables.	<b>Informational</b> In the first, include texts about nature, science, and the arts and other simple non-fiction.
<b>Illustrative Texts for Narratives, Drama, and Poetry</b>	<b>Illustrative Informational Text</b>		
<ul style="list-style-type: none"> <li>"The Boy Who Swam to France" (1900)</li> </ul>	<ul style="list-style-type: none"> <li>"The Boy Who Swam to France" (1900)</li> </ul>		

**Required Text Complexity by Grade**

Grade	Below Grade Band	At Grade Band	Above Grade Band
Kindergarten	0%	100%	0%
Grade 1	0%	100%	0%
Grade 2	0%	70%	30%
Grade 3	0%	70%	30%
Grade 4	0%	70%	30%
Grade 5	0%	70%	30%
Grade 6	0%	70%	30%
Grade 7	0%	70%	30%
Grade 8	0%	70%	30%
Grade 9	0%	70%	30%
Grade 10	0%	70%	30%
Grade 11	0%	70%	30%
Grade 12	0%	70%	30%

**Reading and Literature Standards**

Standard	Core Standards – Students	Standards – Students can and do (by key text type):
<b>Grasping specific details and key ideas</b>	<ol style="list-style-type: none"> <li>1. Cite specific text to support analysis.</li> <li>2. Identify the main ideas and supporting details that support the analysis.</li> <li>3. Describe how specific details relate to the text.</li> </ol>	<p><b>Narratives, Drama, and Poetry</b></p> <ol style="list-style-type: none"> <li>a. cite and analyze specific details from the text to analyze how characters react to and interact with each other and to events and situations.</li> <li>b. analyze how particular details in the text contribute to the development of the characters and to the overall plot and themes.</li> <li>c. analyze how particular details in the text contribute to the development of the characters and to the overall plot and themes.</li> <li>d. analyze how particular details in the text contribute to the development of the characters and to the overall plot and themes.</li> </ol> <p><b>Informational Text</b></p> <ol style="list-style-type: none"> <li>a. analyze how particular details in the text contribute to the development of the characters and to the overall plot and themes.</li> <li>b. analyze how particular details in the text contribute to the development of the characters and to the overall plot and themes.</li> <li>c. analyze how particular details in the text contribute to the development of the characters and to the overall plot and themes.</li> <li>d. analyze how particular details in the text contribute to the development of the characters and to the overall plot and themes.</li> </ol>
<b>Reading Foundations</b> <p><b>Phonics and Word Recognition</b></p> <ol style="list-style-type: none"> <li>a. demonstrate understanding of how phonics knowledge is used to decode words.</li> <li>b. demonstrate understanding of how phonics knowledge is used to decode words.</li> <li>c. demonstrate understanding of how phonics knowledge is used to decode words.</li> <li>d. demonstrate understanding of how phonics knowledge is used to decode words.</li> </ol>	<ol style="list-style-type: none"> <li>a. demonstrate understanding of how phonics knowledge is used to decode words.</li> <li>b. demonstrate understanding of how phonics knowledge is used to decode words.</li> <li>c. demonstrate understanding of how phonics knowledge is used to decode words.</li> <li>d. demonstrate understanding of how phonics knowledge is used to decode words.</li> </ol>	

### Writing and Research

Cross-cutting **Core Standards (H)**, which are numbered and apply to many types of writing, are organized under a number of boxed subheadings (e.g., “Writing to reflect audience, purpose, and task”). **Standards (I)** specific to writing in particular text types—narrative, informative and explanatory text, and argument—are lettered and follow in a separate section. In kindergarten through grade 5, writing arguments takes the form of opinion writing, hence the parenthetical notation next to “Arguments” in those grades/bands.

### Speaking and Listening

Cross-cutting **Core Standards**, which are numbered and apply to speaking and listening in many situations, are grouped with lettered **Standards**, which set requirements for speaking and listening in key communication (e.g., “Presentation of Ideas and Information”).

### Language Development

This strand is organized differently in the ELA and history/science documents. The ELA strand comprises two full sections: Conventions and Vocabulary. Each section includes numbered **Core Standards** organized under a number of boxed subheadings (e.g., “Mechanics”) and introduced by a brief summative paragraph and list of **key terms (J)** intended to be taught explicitly in grade-appropriate ways. ELA Vocabulary consists of three subsections—determining the meaning of words, understanding the nuances of words, and acquiring vocabulary—under each of which numbered **Core Standards** appear. Language Development in the history/science document consists of the summative paragraphs for Conventions and all of the Vocabulary section found in ELA except for nuances in word meaning.

**Writing and Research Standards**

**Writing to reflect audience, purpose, and task**

**Core Standards — Students can and do:**

1. Write narratives, informative and explanatory texts, and arguments that demonstrate an awareness of audience that are familiar and known to the student.

**Conducting research**

**Core Standards — Students can and do:**

2. Perform short, focused research to build knowledge by exploring aspects of a single topic.
3. Gather information from print and digital sources.
4. Evaluate the accuracy of the information gathered to answer specific questions.
5. Analyze information from print and digital sources, through summaries or paraphrase.
6. Provide basic bibliographic information for print and digital sources.

**Revising writing**

**Core Standards — Students can and do:**

7. With guidance and support from peers and adults, strengthen writing through revision, editing, or beginning again to maintain a clear focus throughout.

**Using tools and technology**

**Core Standards — Students can and do:**

8. Use technology and other tools to produce, revise, and edit writing.

**Developing proficiency in a range of writing**

9. Create a variety of extended and on-demand writing products to demonstrate proficiency in a range of writing.

**Standards — Students can and do (by key text type):**

**Narratives**

1. Orient the reader in time and space, introducing characters, settings, and incidents, or by backtracking to the beginning.
2. Create an engaging plot or events that are logically sequenced.
3. Use a variety of text structures and literary devices to develop narrative elements.
4. Use concrete and sensory details to develop narrative elements.

\*See Appendix D for sample student writing that illustrates the degree of sophistication in the level of quality expected at each of the writing standards.

**Language Development Standards**

**Conventions**

In grades 4–5, students heighten their ability to situate and describe using language that is increasingly precise and vivid. They form and use verbs of various tenses to locate people, actions, and events in time, and they correctly use adjectives and adverbs to modify. Students begin to gain control of frequently combined words (e.g., *often, often, often*) and edit writing to remove language that is redundant. Their mastery of capitalization is complete. They use punctuation to separate items in a list and to distinguish an introductory element from the main part of a sentence. Students mark titles in their writing. Their spelling is conventional. They use a variety of text structures to organize their writing. They understand how to quote and use quotation marks. They use a variety of text structures to organize their writing. They use a variety of text structures to organize their writing. They use a variety of text structures to organize their writing.

**J** Key Terms: adjective, adverb, interjection, preposition, simple, progressive, and perfect tense.

**Conventions of language and writing**

**Core Standards — Students can and do:**

1. Maintain the focus of a paragraph on a topic through structural elements such as main ideas, supporting sentences, and transitions.

**Grammar and usage**

**Core Standards — Students can and do:**

2. Form and use the simple (e.g., *I walked, I walk, I will walk*), progressive (e.g., *I was walking, I am walking, I will be walking*) and the perfect (e.g., *I had walked, I have walked, I will have walked*) verb tenses.

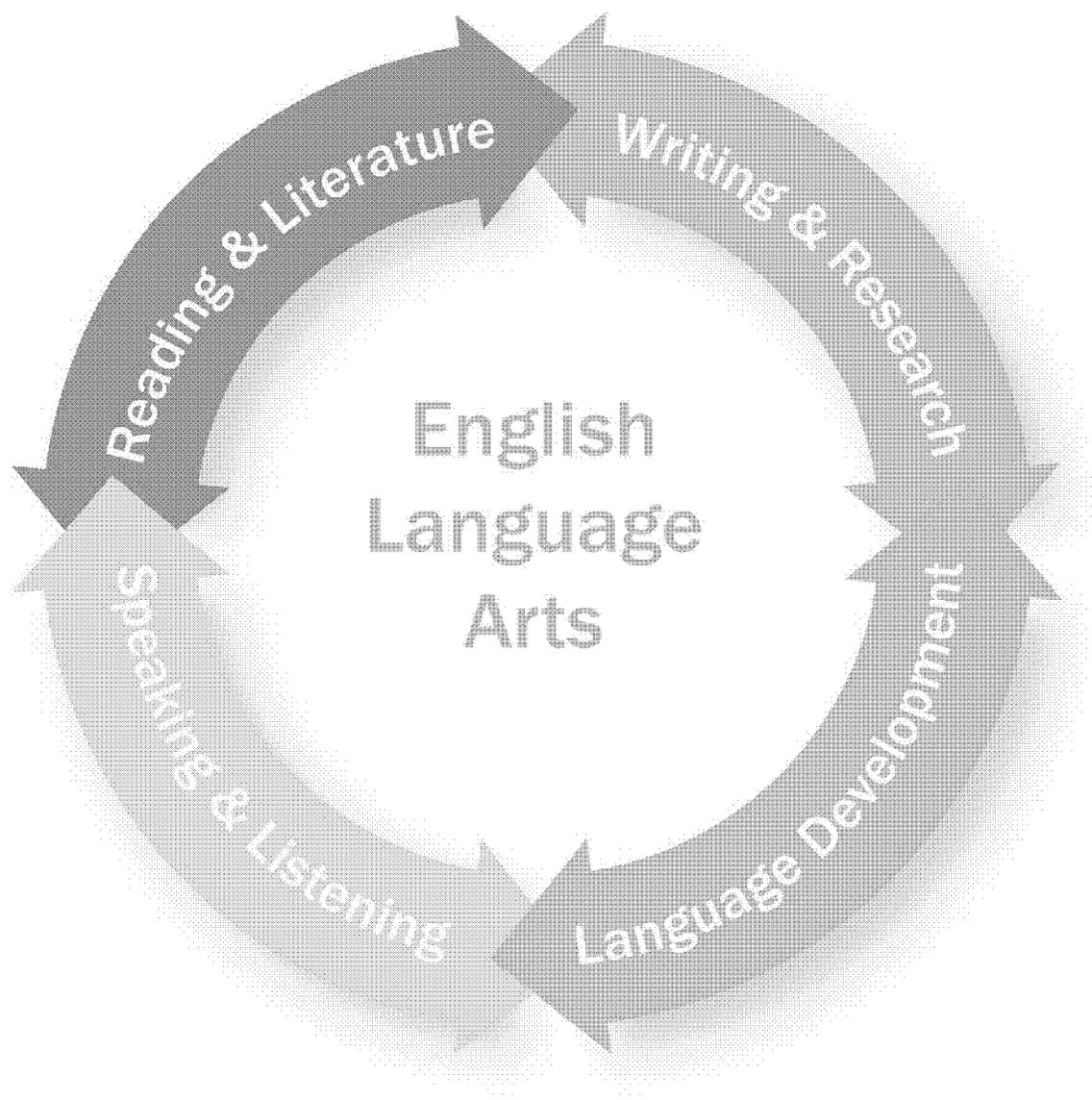
### Focus for Instruction

Beginning with grade 4, a page summarizing grade-level responsibility, including grade-specific areas of focus, is provided to help distinguish responsibilities within multiyear bands.

# English Language Arts

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## Kindergarten



### Mix of Key Text Types for Kindergarten

Narratives	Drama	Poetry	Informational Text
<i>At this level, includes children’s adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.</i>	<i>At this level, includes staged dialogue and brief familiar scenes.</i>	<i>At this level, includes nursery rhymes and the subgenres of narrative poems, limericks, and free verse.</i>	<i>At this level, includes books about science, history, and the arts and other nonfiction materials.</i>

#### Illustrative Texts for Narratives, Drama, and Poetry<sup>4</sup>

*Are You My Mother?* by P.D. Eastman (1960)

*Put Me in the Zoo* by Robert Lopshire (1960)

“Mix a Pancake” by Christina Rossetti (1986)

“Wouldn’t You?” by John Ciardi (1986)

#### Illustrative Informational Texts

*My Five Senses* by Alike (1962)

Read Alouds:

*Amazing Whales!* by Sarah L. Thomson (2005)

*The Year at Maple Hill Farm* by Alice and Martin Provensen (1978)

<sup>4</sup> See Appendix B for other texts illustrative of Kindergarten-Grade 1 text complexity. This list includes read-alouds.

## Reading and Literature Standards<sup>5</sup>

### Grasping specific details and key ideas

#### Core Standards — Students can and do:

1. Retell key details and information drawn from the text.
2. Explain the subject of the text or the problem the characters face.
3. Answer questions about characters and events that take place in the text.

#### Standards — Students can and do (by key text type):

##### Narratives, Drama, and Poetry

- a. retell the beginnings, middles, and endings of stories
- b. ask and answer questions about details of a text
- c. identify the problems that characters face in a story and the lessons learned
- d. identify the feelings of characters and the reasons for their actions
- e. differentiate between realistic and fantastical elements within a story

##### Informational Text

- a. restate key information (e.g., events, subject, ideas) from a text
- b. ask and answer questions about details of a text

## Reading Foundations

### Print Concepts

1. Students demonstrate understanding of the organization and basic features of print.
  - a. identify basic features and conventions of books and other written texts (e.g., front cover, back cover, title, author)
  - b. understand that print is left to right, top to bottom, and page by page
  - c. understand that words are separated by spaces in print
  - d. recognize and name all upper- and lowercase letters of the alphabet

### Linguistic Awareness

2. Students gain awareness of spoken words, syllables, and phonemes.
  - a. recognize, recite, and produce rhyming words
  - b. count, pronounce, blend, and segment syllables in spoken words
  - c. recognize, blend, and segment onset and rimes of spoken words [ /g/ - /oat/; /bl/ - /ock/ ]
  - d. count or place tokens for individual words in spoken phrases or simple sentences
  - e. orally blend and segment individual phonemes in simple, one-syllable words
  - f. demonstrate phonemic awareness by isolating and pronouncing the initial and final phonemes (sounds) in three-phoneme /CVC/ words without consonant blends (e.g., /road/, /save/, /ham/)
  - g. add or substitute individual phonemes in simple, one-syllable words to make new words (e.g., /at/ → /sat/ → /mat/ → /map/ )

<sup>5</sup> The expectation is that students can fulfill these standards with texts they read independently as well as texts that are read aloud to them.

## Observing craft and structure

### Core Standards — Students can and do:

4. Identify the meanings of words and phrases as they are used in the text.
5. Identify important parts or sections of texts.
6. Compare and contrast characters or events from different stories.

### Standards — Students can and do (by key text type):

#### Narratives, Drama, and Poetry

- a. identify words and phrases that suggest feelings or appeal to the senses
- b. identify similarities in beginning and ending sounds of words in children's poems and songs
- c. identify parts of a story and parts of a poem as well as sections of informational picture books and tell how they are different
- d. identify common characteristics of folktales and fairy tales, including their use of rhyme, rhythm, and repetition
- e. participate (e.g., react, speculate, read along, act out) when familiar texts are read aloud
- f. compare and contrast characters or events from different stories written by the same author or written about similar subjects

#### Informational Text

- a. identify basic text features and what they mean, including titles and subtitles, table of contents, and chapters

## Reading Foundations, continued

### Phonics and Word Recognition

3. Students know and apply grade-level phonics and word analysis skills in decoding words.
  - a. demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant
  - b. identify which letters represent the five major vowels and know the long and short sound of each
  - c. blend letter-sounds to decode short-vowel CVC words (e.g., *cat, mop, sun*)
  - d. read at least 25 very high frequency words by sight (e.g., *of, to, he, she, is, do, does*)

### Developing Fluency

4. Students read with sufficient accuracy and fluency to support comprehension.
  - a. read rebus and preprimer texts with purpose and understanding
  - b. demonstrate increased accuracy and fluency on successive readings of a text

## Integrating information and evaluating evidence

### Core Standards — Students can and do:

7. Use text illustrations to predict or confirm what the text is about.
8. Identify words in a text that link ideas and events together.
9. Identify who is telling a story or providing information in the text.

### Standards — Students can and do (by key text type):

#### Narratives, Drama, and Poetry

- a. use pictures, illustrations, and context to make predictions about and confirm story content
- b. identify words in a story that link events together (e.g., *first/second, then, next, before/after, later, finally*)
- c. identify who is the speaker in a story or poem

#### Informational Text

- a. identify words that link ideas together (e.g., *also, in addition, for example, but*)
- b. identify the author and sources of information when provided by the text

## Developing habits for reading text

### Core Standards — Students can and do:

10. Begin to read independently and/or with a partner, sustaining effort necessary to build understanding.

## Writing and Research Standards

### Writing to reflect audience, purpose, and task

#### Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

### Conducting research

#### Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

### Revising writing

#### Core Standards — Students can and do:

3. With specific guidance, add details to strengthen writing through revision.

## Using tools and technology

### Core Standards — Students can and do:

- Gain familiarity with technology and other tools to produce, revise, and edit writing.

### Standards — Students can and do (by key text type):<sup>6</sup>

#### Narratives

- establish a situation in time and/or place
- recount several loosely linked actions in a short, familiar event, controlling for chronological order
- provide a reaction to what happened

#### Informative and Explanatory Texts

- establish the topic in a title or first sentence
- supply facts and information relevant to the topic

#### Arguments (opinions)

- introduce the topic directly, or use the title of a book when writing about a text
- express preferences or opinions (e.g., *My favorite book is . . .*) relevant to the topic
- provide a reason for preference or opinion (e.g., *It reminded me of when I met my friend Carlos*)
- use linking words that express causality (e.g., *I like . . . because . . .*)

## Speaking and Listening Standards

### Listening closely and participating productively

#### Core Standards — Students can and do:

- Participate productively in group activities requiring speaking and listening.
- Listen closely to and sustain attention on texts read aloud as well as other sources of information presented orally, visually, or multi-modally and confirm understanding by restating the information and answering pertinent questions.

#### Standards — Students can and do (by key communication type):

##### Classroom discussions and participating productively

- initiate and participate in conversations with peers and adults through multiple exchanges, attending to the comments of others
- confirm understanding by restating information or answering questions about what has been discussed
- ask questions to get information, ask for help, or clarify something that is not understood
- follow norms for conversation, such as listening to others and taking turns to speak

### Exchanging information and speaking effectively

#### Core Standards — Students can and do:

<sup>6</sup> See Appendix D for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

3. Share experiences and ideas that demonstrate an awareness of their listeners.
4. Speak audibly and clearly.

### **Standards — Students can and do (by key communication type):**

Presentation of ideas and information

- a. describe people, places, things, and events with relevant facts and examples
- b. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

## **Language Development Standards**

### **Conventions**

In kindergarten, students learn to form letters and words in print and to relate sounds (phonemes) to one or more letters. They understand the notion of a sentence, that a sentence performs one of a few basic functions (make a statement, ask a question, or issue a command), and that end punctuation can signal the sentence's function or intensity. With prompting and assistance, they form and expand basic sentences in order to express thoughts, beginning the sentence with a capital letter. Students have a sense of what a noun is, of what singular and plural nouns are, and of how plural nouns are often formed. They also know how to use the most frequently occurring prepositions.

Key Terms: exclamation point, capital/uppercase and lowercase letter, singular and plural noun, period, punctuation, question mark, sentence

### **Conventions of language and writing**

#### **Core Standards — Students can and do:**

1. Print all upper- and lowercase letters.
2. Write a letter or letters for each consonant and short-vowel sound (phoneme).

### **Grammar and usage**

#### **Core Standards — Students can and do:**

3. Produce and expand complete sentences in shared writing and language activities.
4. Use and understand question words (e.g., *what, where, when, who, which, how*).
5. Form regular plural nouns by adding /s/ or /es/ (e.g., *dog, dogs; wish, wishes; baby, babies*).
6. Demonstrate understanding of the most frequently occurring prepositions (e.g., *to/from, in/out, on/off, for, of, by, with*).

### **Mechanics**

#### **Core Standards — Students can and do:**

7. Capitalize the first word in a sentence and the pronoun *I*.
8. Identify end punctuation, including periods, question marks, and exclamation points.

9. Spell simple words phonetically using knowledge of sound-letter relationships.

## Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In kindergarten, students learn about words in terms of like versus unlike and “similar but not quite the same,” using objects and movements as aids. They learn to use descriptive language to distinguish one object from another and order and position words to describe sequences and spatial relationships. They acquire new words through interactive language use, including informal talk, discussion, listening to and responding to texts read aloud as well as by being taught the words directly.

### Determining the meaning of words

#### Core Standards — Students can and do:

1. Sort common objects into categories (e.g., shapes, foods).

### Understanding the nuances of words (denotations and connotations)

#### Core Standards — Students can and do:

2. Act out the meaning of verbs describing the same general action (e.g., *walk, march, strut, prance*) to gain a sense of their different meanings.
3. Demonstrate understanding of common adjectives by relating them to their opposites (antonyms).
4. Use common adjectives to distinguish objects (e.g., the *small blue* square, the *shy white* rabbit).

### Acquiring vocabulary

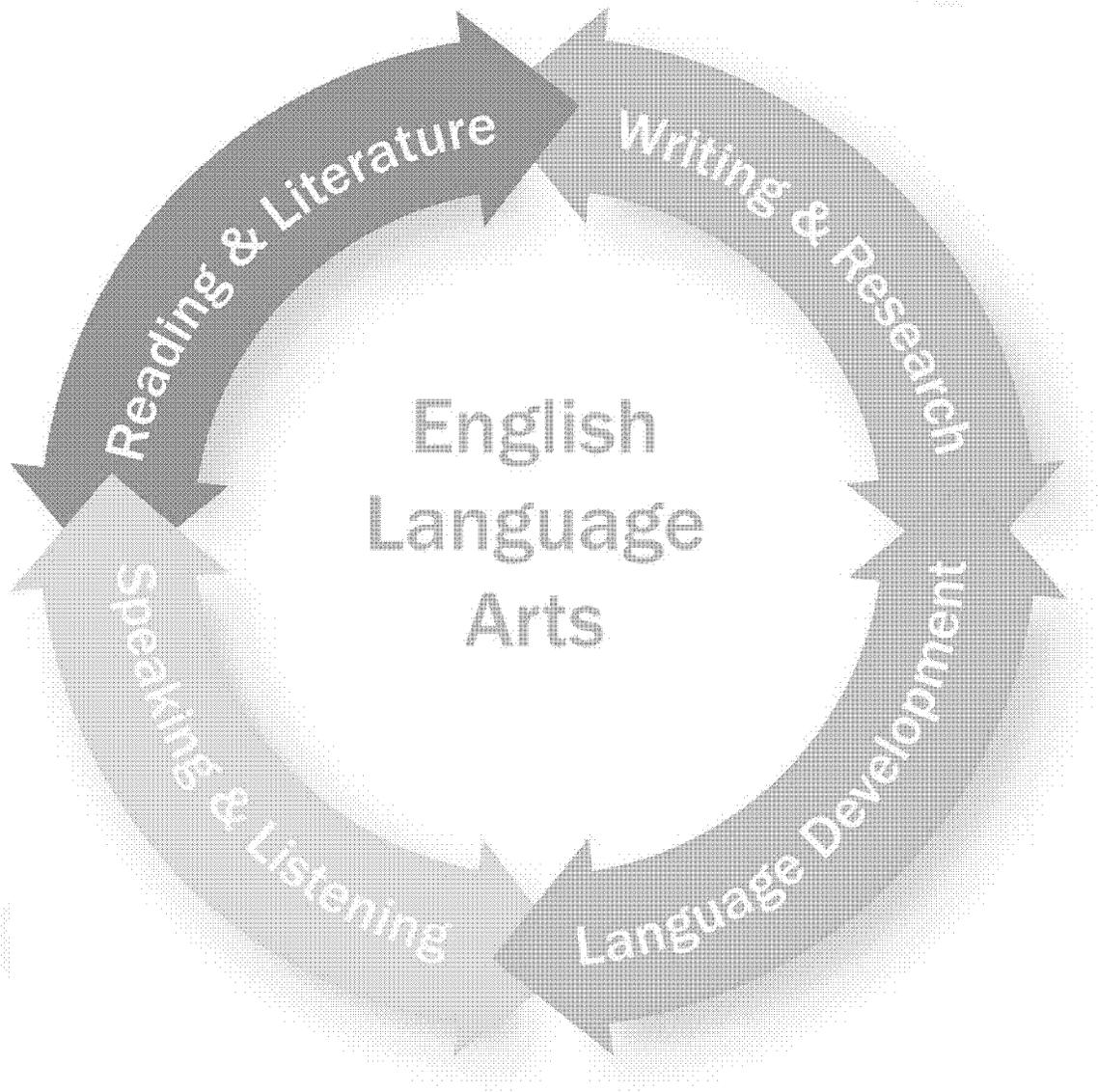
#### Core Standards — Students can and do:

5. Demonstrate meaning of new vocabulary taught directly and gained through conversations and hearing texts read aloud.
6. Demonstrate understanding of words that express order and position (e.g., *first, middle, last; before, after; under, over*).

# English Language Arts

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## Grade 1



### Mix of Key Text Types for Grade 1

Narratives	Drama	Poetry	Informational Text
<i>At this level, includes children’s adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.</i>	<i>At this level, includes staged dialogue and brief, familiar scenes.</i>	<i>At this level, includes nursery rhymes and the subgenres of narrative poems, limericks, and free verse.</i>	<i>At this level, includes books about science, history, and the arts and other nonfiction materials.</i>

#### Illustrative Texts for Narratives, Drama, and Poetry<sup>7</sup>

- Green Eggs and Ham* by Dr. Seuss (1960)
- Frog and Toad Together* by Arnold Lobel (1971)
- Henry and Mudge: The First Book of Their Adventures* by Cynthia Rylant, illustrated by Suçie Stevenson (1987)
- “Halfway Down” by A. A. Milne (1924)
- “It Fell in the City” by Eve Merriam (1986)
- Read alouds:
- Little House in the Big Woods* by Laura Ingalls Wilder, illustrated by Garth Williams (1932)
- Zin! Zin! Zin! a Violin* by Lloyd Moss, illustrated by Marjorie Priceman (1995)

#### Illustrative Informational Texts

- A Tree Is a Plant* by Clyde Robert Bulla, illustrated by Stacey Schuett (text: 1960/illus: 2001)
- What Do You Do With a Tail Like This?* by Steve Jenkins & Robin Page (2003)
- “Our Good Earth” in *National Geographic Young Explorer*, April (2009)
- Read alouds:
- Follow the Water from Brook to Ocean* by Arthur Dorros (1991)
- Living Sunlight: How Plants Bring the Earth to Life* by Molly Bang & Penny Chisholm, illustrated by Molly Bang (2009)

<sup>7</sup> See Appendix C for other texts illustrative of Kindergarten-Grade 1 text complexity. This list includes read-alouds.

## Reading and Literature Standards<sup>8</sup>

### Grasping specific details and key ideas

#### Core Standards — Students can and do:

1. Retell key details and information drawn from the text.
2. Explain the subject of the text or the problem the characters face.
3. Answer questions about characters and events that take place in the text.

#### Standards — Students can and do (by key text type):

##### Narratives, Drama, and Poetry

- a. retell the beginnings, middles, and endings of stories
- b. ask and answer questions about details of a text
- c. identify the problems that characters face in a story and the lessons learned
- d. identify the feelings of characters and the reasons for their actions
- e. differentiate between realistic and fantastical elements within a story

##### Informational Text

- a. restate key information (e.g., events, subject, ideas) from a text
- b. ask and answer questions about details of a text

## Reading Foundations

### Linguistic Awareness

1. Students gain awareness of spoken words, syllables, and phonemes.
  - a. aurally distinguish long from short vowel sounds in spoken single-syllable words (e.g., /tap/ vs. /tape/; /sock/ vs. /soak/; /sit/ vs. /sight/)
  - b. produce single-syllable words by orally blending phonemes, including consonant blends (e.g., /cats/, /black/, /blast/)
  - c. isolate and pronounce initial, medial vowel, and final phonemes (sounds) in single-syllable words (e.g., *fast*, *fast*)
  - d. orally segment single-syllable words into their complete sequence of individual phonemes

<sup>8</sup> The expectation is that students can fulfill these standards with texts they read independently as well as texts that are read aloud to them.

## Observing craft and structure

### Core Standards — Students can and do:

4. Identify the meanings of words and phrases as they are used in the text.
5. Identify important parts or sections of texts.
6. Compare and contrast characters or events from different stories.

### Standards — Students can and do (by key text type):

#### Narratives, Drama, and Poetry

- a. identify words and phrases that suggest feelings or appeal to the senses
- b. identify similarities in beginning and ending sounds of words in children's poems and songs
- c. identify parts of a story and parts of a poem as well as sections of informational picture books and tell how they are different
- d. identify common characteristics of folktales and fairy tales, including their use of rhyme, rhythm, and repetition
- e. participate (e.g., react, speculate, read along, act out) when familiar texts are read aloud
- f. compare and contrast characters or events from different stories written by the same author or written about similar subjects

#### Informational Text

- a. identify basic text features and what they mean, including titles and subtitles, table of contents, and chapters

## Reading Foundations, continued

### Phonics and Word Recognition

2. Students know and apply grade-level phonics and word analysis skills in decoding words.
  - a. know the common spelling-sound correspondences for consonants (e.g., *wr-*, *sh*, *-ck*, *-ll*)
  - b. know vowel digraph and final-*e* conventions for representing long vowels
  - c. know spelling-sound correspondences for diphthongs and other common vowel teams (e.g., *loud*, *cow*, *look*, *loop*, *boy*, *boil*)
  - d. use knowledge of phonics and spelling conventions to decode regularly spelled one-syllable words (e.g., *sick*, *march*, *sight*, *slice*, *bake*, *spring*)
  - e. understand that every syllable must have a vowel sound and use that knowledge to determine the number of syllables in a word
  - f. decode two-syllable words following basic patterns (e.g., *rabbit*, *magnet*, *napkin*, *pickle*, *butter*)
  - g. read words with inflectional endings (e.g., *-s*, *-es*, *ies*, *-ed*, *ied*, *-ing*, *-er*, *-est*)
  - h. use phonics to decode visually new words when reading
  - i. recognize grade-appropriate, irregularly spelled words by sight

## Integrating information and evaluating evidence

### Core Standards — Students can and do:

7. Use text illustrations to predict or confirm what the text is about.
8. Identify words in a text that link ideas and events together.
9. Identify who is telling a story or providing information in the text.

### Standards — Students can and do (by key text type):

#### Narratives, Drama, and Poetry

- a. use pictures, illustrations, and context to make predictions about and confirm story content
- b. identify words in a story that link events together (e.g., *first/second, then, next, before/after, later, finally*)
- c. identify who is the speaker in a story or poem

#### Informational Text

- a. identify words that link ideas together (e.g., *also, in addition, for example, but*)
- b. identify the author and sources of information when provided by the text

## Developing habits for reading text

### Core Standards — Students can and do:

10. Begin to read independently and/or with a partner, sustaining effort necessary to build understanding.

## Reading Foundations, continued

### Developing Fluency

3. Students read with sufficient accuracy and fluency to support comprehension.
  - a. demonstrate increased accuracy, fluency, and expression on successive readings of a text
  - b. use context to confirm or self-correct word recognition and understanding, rereading as necessary
  - c. read aloud, alone, or with a partner at least 15 minutes each day, in school or out

## Writing and Research Standards

### Writing to reflect audience, purpose, and task

#### Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

### Conducting research

#### Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

### Revising writing

#### Core Standards — Students can and do:

3. With specific guidance, add details to strengthen writing through revision.

### Using tools and technology

#### Core Standards — Students can and do:

4. Gain familiarity with technology and other tools to produce, revise, and edit writing.

### Standards — Students can and do (by key text type):<sup>9</sup>

#### Narratives

- a. establish a situation in time and/or place that is appropriate for the sequence of events to follow
- b. develop appropriately sequenced actions within one or more events using linking words, phrases, or clauses to signal chronological ordering
- c. provide a reaction to what happened
- d. include dialogue if appropriate, and some details
- e. provide a sense of closure and/or a reflective statement

#### Informative and Explanatory Texts

- a. include some sort of beginning to establish the topic (beyond using the title of the piece)
- b. supply facts and information relevant to the topic
- c. use simple additive linking words (e.g., *and*, *first*, *second*) to create connections between the facts
- d. provide examples relevant to the topic
- e. provide a sense of closure

#### Arguments (opinions)

- a. introduce the topic or book directly, or use the title of the book as an introduction
- b. state opinions (e.g., *My best friend is . . .*) relevant to the topic
- c. provide reasons for opinions and details to support them

<sup>9</sup> See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

- d. use linking words that express causality (e.g., *I like . . . because . . .*)
- e. refer to the content of the text when writing about literature

## Speaking and Listening Standards

### Listening closely and participating productively

#### Core Standards — Students can and do:

1. Participate productively in group activities requiring speaking and listening.
2. Listen closely to and sustain attention on texts read aloud as well as other sources of information presented orally, visually, or multi-modally and confirm understanding by restating the information and answering pertinent questions.

#### Standards — Students can and do (by key communication type):

##### Classroom discussions and participating productively

- a. initiate and participate in conversations with peers and adults through multiple exchanges, attending to the comments of others
- b. confirm understanding by restating information or answering questions about what has been discussed
- c. ask questions to get information, ask for help, or clarify something that is not understood
- d. follow norms for conversation, such as listening to others and taking turns to speak

### Exchanging information and speaking effectively

#### Core Standards — Students can and do:

3. Share experiences and ideas that demonstrate an awareness of their listeners.
4. Speak audibly and clearly.

#### Standards — Students can and do (by key communication type):

##### Presentation of ideas and information

- a. describe people, places, things, and events with relevant facts and examples
- b. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

## Language Development Standards

### Conventions

In grade 1, students gain increasing skill and independence in sentence formation and development. They have a sense of what a verb is and that its form changes to signal different time periods (past, present, and future). Their repertoire of prepositions continues to expand, and they use pronouns with regularity. Students capitalize names, places, and dates. They use end punctuation as well as commas in dates and in simple series of words. Their range of word-formation and spelling strategies grows.

Key Terms: comma, pronoun, verb

## Grammar and usage

### Core Standards — Students can and do:

1. Produce and expand complete sentences in response to questions and prompts.
2. Use subject, object, and possessive pronouns (e.g., *I, me, my; they, them, their*).
3. Use verbs to convey a sense of past, present, and future in writing and speaking (e.g., *Today I walk home; Yesterday I walked home; Tomorrow I will walk home*).
4. Demonstrate understanding of frequently occurring prepositions (e.g., *during, beyond, toward*).

## Mechanics

### Core Standards — Students can and do:

5. Capitalize names, places, and dates.
6. Use end punctuation for sentences, including periods, question marks, and exclamation points.
7. Use commas in dates and to separate single words in a series.
8. Form new words through addition, deletion, and substitution of sound and letters (e.g., *an → man → mat → mast → must → rust → crust*).
9. Use conventional spelling for words with common spelling patterns and common irregular words.
10. Use phonetic spellings for untaught words, drawing on phonemic awareness and spelling conventions.

## Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grade 1, students begin to sort words themselves into categories rather than the objects that they name. They are able to define familiar words (e.g., *duck*) in a two-step process of identifying a category (bird) to which it belongs and naming one or more attributes that distinguish this category member from others (able to swim). Students grasp that many words they know can mean different things depending on how the word is used, and they make distinctions between and among closely related verbs and adjectives in terms of manner and intensity. They acquire new words through interactive language use, including informal talk, discussion, listening to and responding to texts read aloud as well as by being taught the words direct.

## Determining the meaning of words

### Core Standards — Students can and do:

1. Sort words into categories (e.g., colors, clothing).
2. Define words by category and by one or more key attributes (e.g., a *duck* is a bird that swims; a *tiger* is a large cat with stripes).
3. Demonstrate understanding of the concept of multiple-meaning words (e.g., *match, kind, play*) by identifying various meanings of some grade-appropriate examples of such words.

## Understanding the nuances of words (denotations and connotations)

### Core Standards — Students can and do:

4. Define, choose, or act out the meaning of closely related verbs that differ in manner (e.g., *look, peek, glance, stare, glare, scowl; speak, shout, mumble, whine, whimper, murmur*).
5. Distinguish among closely related adjectives that differ in intensity (e.g., *large, gigantic; hot, scalding; tasty, delicious; quiet, silent*).

## Acquiring vocabulary

### Core Standards — Students can and do:

6. Acquire and use new vocabulary taught directly and gained through conversations and hearing texts read aloud.

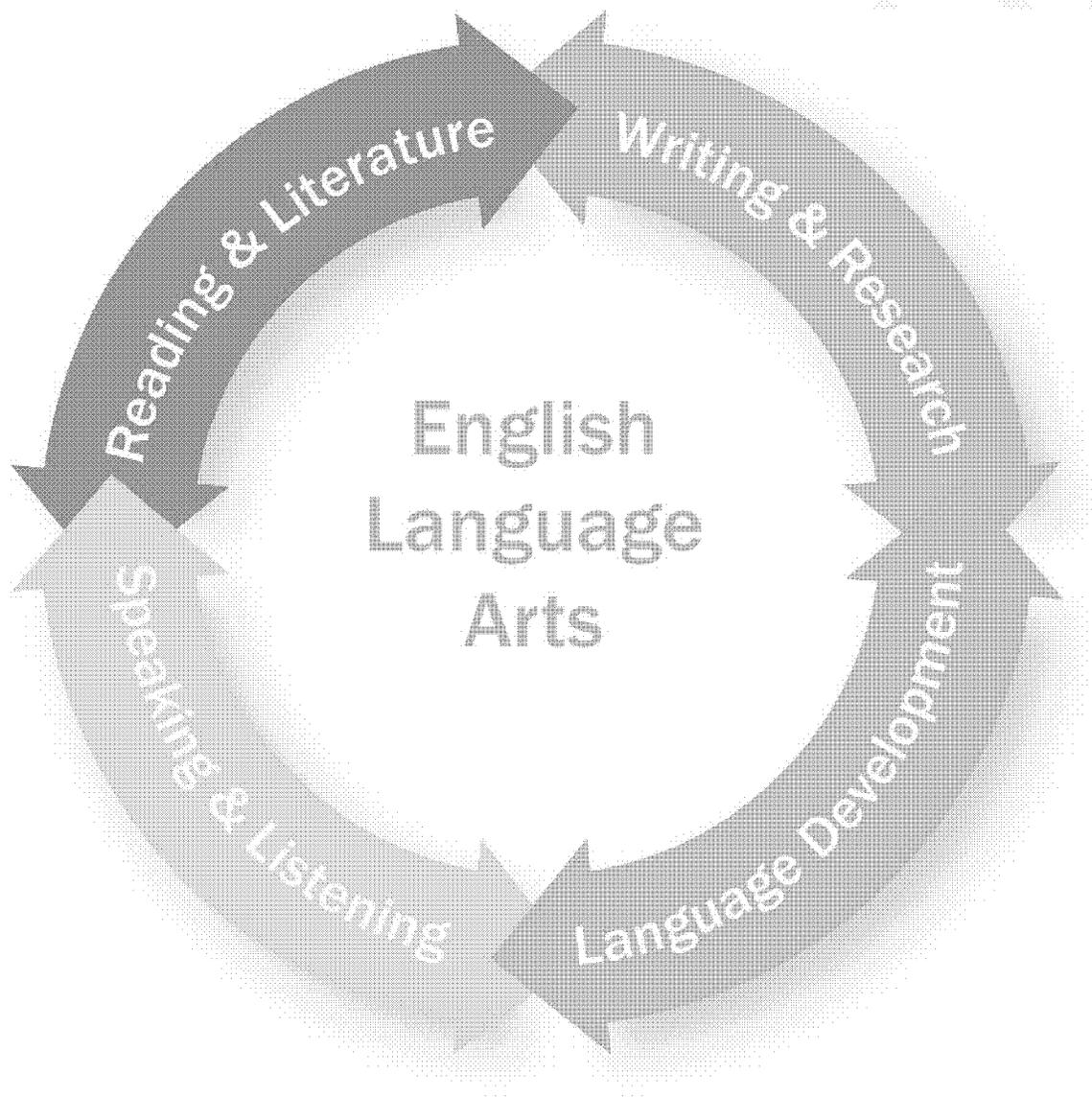
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# English Language Arts

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## Grade 2



## Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade

Grades	2–3 Level Text	4–5 Level Text
2	100%	
3	70%	30%

While advancing through the grades, students must engage with texts of steadily increasing complexity.

- **In grade 2**, students focus on reading texts in the 2–3 grade band level with scaffolding likely required for texts at the high end of the range.

### Determining Text Complexity for Grades 2–3

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of “best fit,” or determining which grade band’s set of descriptors most accurately describes the text.

Qualitative Measures of Texts <sup>10</sup>	Quantitative Measures of Texts
<ul style="list-style-type: none"> <li>• <i>Structure</i>: Explicit, simple, conventional; simple graphic representations are supplementary to meaning; texts are relatively short</li> <li>• <i>Purpose</i>: Single; explicitly stated</li> <li>• <i>Style and Language</i>: Familiar, accessible, plain; few literary devices; mostly clear, everyday language; limited use of Tier 2 and 3 words and figurative language</li> <li>• <i>Richness</i>: A few ideas/concepts; concrete; low information density</li> <li>• <i>Relationships</i>: A few connections; explicit</li> <li>• <i>Knowledge Demands</i>: Ability to handle simple themes and fantastical elements as well as draw upon common, everyday experiences; general background knowledge and familiarity with genre conventions required; some everyday and general content knowledge</li> </ul>	<p>A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.</p>
<p>Professional Judgment that weighs students’ prior knowledge and life experiences as well as their interests, motivations, and maturity level.</p>	

<sup>10</sup> Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

### Mix of Key Text Types for Grade 2

Narratives	Drama	Poetry	Informational Text
<i>At this level, includes children’s adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.</i>	<i>At this level, includes staged dialogue, scenes, and brief, familiar scenes.</i>	<i>At this level, includes nursery rhymes and the subgenres of narrative poems, limericks, and free verse.</i>	<i>At this level, includes books about science, history, and the arts and other nonfiction materials.</i>

#### Illustrative Texts for Narratives, Drama, and Poetry<sup>11</sup>

- Crow Boy* by Taro Yashima (1955)
- The Stories Julian Tells* by Ann Cameron (1981)
- Tops and Bottoms* by Janet Stevens (1995)
- “Grandpa’s Stories” by Langston Hughes (1958)
- “Weather” by Eve Merriam (1969)

#### Read alouds:

- The Cricket in Times Square* by George Selden, illustrated by Garth Williams (1960)
- “Fireflies” by Paul Fleischman, illustrated by Eric Beddows (1988)

#### Illustrative Informational Texts

- Maps & Globes* by Jack Knowlton, pictures by Harriet Barton (1985)
- Sunshine Makes the Seasons* by Franklyn M. Branley (1985)
- From Seed to Plant* by Gail Gibbons (1991)
- Boy, Were We Wrong About Dinosaurs* by Kathleen V. Kudlinski, illustrated by S.D. Schindler (2005)

<sup>11</sup> See Appendix B for other texts illustrative of Grades 2-3 text complexity.

## Reading and Literature Standards

### Grasping specific details and key ideas

#### Core Standards — Students can and do:

1. Retell what the text says explicitly and make inferences required to understand the text.
2. Identify the lessons or topics of the text and the key details that support them.
3. Describe in detail a specific character, event, or topic in the text.

#### Standards — Students can and do (by key text type):

##### Narratives, Drama, and Poetry

- a. ask and answer clarifying questions (e.g., how, why, where, when, who, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
- b. identify or infer the moral or lesson in well-known stories, fables, folktales, or myths
- c. describe how major events in a story often lead from problem to solution
- d. examine a specific incident in a story, narrative, or drama in depth and establish when, where, and why it occurs
- e. describe characters based upon what they say and do

##### Informational Text

- a. accurately restate the key information provided by the text
- b. ask and answer clarifying questions (e.g., how, why, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
- c. identify the main idea and supporting details and facts in a text
- d. explain the topic of each paragraph in a multi-paragraph text
- e. identify specific events in historical or scientific texts and discuss what happened, as well as where, when, and why it happened, according to facts taken from the text

## Reading Foundations

### Phonics and Word Recognition

1. Students know and apply grade-level phonics and word analysis skills in decoding words.
  - a. know the common spelling-sound correspondences for consonants (e.g., *wr-*, *sh*, *-ck*, *-ll*)
  - b. know vowel digraph and final-*e* conventions for representing long vowels
  - c. know spelling-sound correspondences for diphthongs and other common vowel teams (e.g., *loud*, *cow*, *look*, *loop*, *boy*, *boil*)
  - d. use knowledge of phonics and spelling conventions to decode regularly spelled one-syllable words (e.g., *sick*, *march*, *sight*, *slice*, *bake*, *spring*)

## Observing craft and structure

### Core Standards — Students can and do:

4. Explain the meanings of words and phrases as they are used in the text.
5. Gain familiarity with different ways of presenting stories and information in text.
6. Compare and contrast different versions of the same story or informational texts on the same subject.

### Standards — Students can and do (by key text type):

#### Narratives, Drama, and Poetry

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- a. recognize sensory details and how they are used to describe events, feelings, and objects
- b. describe the different ways poets use rhyme, rhythm, and sensory images to convey a topic or message
- c. identify repetitions in phrases, refrains, or sounds in poems and songs
- d. describe story elements, including characters, setting, the problem, and how it is resolved
- e. discuss stories written by the same author about similar characters or compare different versions of similar well-known tales and myths from various cultures

#### Informational Text

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- a. locate key words, facts, or other details using features of texts (e.g., captions, headings, glossaries, indexes, electronic menus, and icons)
- b. distinguish between writing that is based on real events and writing that is based on fantasy or fictional events
- c. combine information from two different parts of a text and identify how they are related (e.g., chronology, causation)
- d. after reading two passages on the same subject, combine the information to more fully describe a topic

## Reading Foundations, continued

### Developing Fluency

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2. Students read with sufficient accuracy and fluency to support comprehension.
  - a. demonstrate increased accuracy, fluency, and expression on successive readings of a text
  - b. use context to confirm or self-correct word recognition and understanding, rereading as necessary
  - c. read alone or with a partner at least 20 minutes each day, in school or out

## Integrating information and evaluating evidence

### Core Standards — Students can and do:

7. Locate and use information from graphs, illustrations, and electronic sources.
8. Identify and understand words and phrases that indicate logical relationships.
9. Identify who is telling the story or providing information at any given point in the text.

### Standards — Students can and do (by key text type):

#### Narratives, Drama, and Poetry

- a. efficiently navigate stories in print and electronic text and explain how images and illustrations connect to and clarify the content
- b. identify who is telling the story or who is speaking in a drama

#### Informational Text

- a. use information from visual elements of print and electronic texts (e.g., graphs, maps, charts, illustrations, photographs, diagrams) and explain how they help a reader understand the text
- b. identify words (e.g., *such as, because, therefore, in order to, since*) that logically connect ideas in sentences and paragraphs

## Developing habits for reading complex text

### Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding text.

## Writing and Research Standards

### Writing to reflect audience, purpose, and task

#### Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

### Conducting research

#### Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

### Revising writing

#### Core Standards — Students can and do:

3. With specific guidance, strengthen writing through revision.

### Using tools and technology

#### Core Standards — Students can and do:

4. Gain familiarity with technology and other tools to produce, revise, and edit writing.

#### Standards — Students can and do (by key text type):<sup>12</sup>

##### Narratives

- a. establish a situation in time and/or place that is appropriate for the sequence of events to follow
- b. recount a single well-elaborated event or sequence of events, managing chronological sequence with temporal words, phrases, and clauses
- c. tell what the narrator thought or felt
- d. include dialogue if appropriate and specific details
- e. provide closure through reaction, commentary, or summation

##### Informative and Explanatory Texts

- a. produce a brief introduction
- b. create an organizational structure that presents similar information together, frequently patterned after chapter book headings or picture books
- c. use adequate and specific facts and definitions to develop points
- d. use linking words, such as *also*, *another*, *and*, and *more*, to connect ideas within categories of information, and headers to signal groupings
- e. include a concluding sentence or section

##### Arguments (opinions)

- a. introduce the topic or book(s) directly
- b. state opinion(s) relative to the topic
- c. provide reasons for opinions and details to support them
- d. create a list-like structure for organization
- e. use words to link and organize opinions and reason(s) (e.g., *because*, *another*, *and*, *also*)
- f. refer to the text(s) when writing about literature
- g. close with a concluding statement or recommendation

## Speaking and Listening Standards

### Listening closely and participating productively

#### Core Standards — Students can and do:

1. Participate productively in small groups and as a class, engaging in a series of oral exchanges about texts and topics.

<sup>12</sup> See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by paraphrasing the information.

### **Standards — Students can and do (by key communication type):**

Classroom discussions and participating productively

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- a. engage in conversations on familiar topics
- b. paraphrase the key information or ideas of others presented orally or through other media
- c. inquire about oral or visual presentations to deepen understanding or clarify comprehension
- d. link additions to conversation to the previous remarks of others
- e. participate productively by listening politely to the ideas of others, taking turns speaking, and extending their ideas in light of discussions

## **Exchanging information and speaking effectively**

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### **Core Standards — Students can and do:**

3. Share experiences and ideas, thinking about the needs of their listeners.
4. Speak audibly and clearly at an understandable pace.

### **Standards — Students can and do (by key communication type):**

Presentation of ideas and information

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- a. recount stories or experiences with descriptive details by answering who, what, where, when, how, and why questions about them
- b. report on a topic, including appropriate facts and details
- c. use appropriate tone to express ideas, feelings, and needs clearly
- d. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

## **Language Development Standards**

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### **Conventions**

In grade 2, students create sentences of expanding length and complexity, though their control over these sentences is likely to be imperfect. Their command of noun and verb formation extends to common irregular forms. Students capitalize correctly in most situations. Their use of punctuation has grown to include commas in greetings and closings of letters as well as apostrophes to form contractions and to signal possession. Their spelling is increasingly conventional, and they now consult references, such as beginning dictionaries, to aid them when needed.

Key Terms: apostrophe, contraction, regular and irregular nouns and verb, possessive

## **Grammar and usage**

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### **Core Standards — Students can and do:**

1. Generate and expand sentences with embedded, dependent, or conjoined clauses (e.g., *After we came home from school, I fed the gerbil and my sister cleaned the cage*).
2. Form common irregular plural nouns (e.g., *feet, children, teeth, mice, fish, women*).

3. Form the past tense of common irregular verbs (e.g., *sat, hid, told*).

## Mechanics

### Core Standards — Students can and do:

4. Capitalize holidays, product names, geographic names, and important words in titles.
5. Use commas in greetings and closings of letters.
6. Use apostrophes to punctuate contractions and to form common possessives.
7. Use conventional spelling for high-frequency and other studied words.
8. Generalize learned spelling patterns when writing words (e.g., *cage* → *badge*; *boy* → *boil*; *paper* → *copper*).
9. Use spelling rules for adding suffixes to base words (e.g., *sitting, smiled, cries, happiness*).
10. Consult reference materials, including beginning dictionaries, to check and correct spellings.

## Vocabulary

In grade 2, students use a repertoire of strategies for dealing with unknown words. They can analyze the word itself, consider how it is used, consult reference materials, use the components of a compound word as clues to the word's meaning, or employ some combination of these strategies to determine or clarify word meanings. They figure out which meaning of a multiple-meaning word is most likely intended in a particular circumstance, and they differentiate among the connotations of related verbs and adjectives. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly.

## Determining the meaning of words

### Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
  - identifying its base word when it has affixes (e.g., *happiness, finally, grimy, busily*)
  - determining how it is used in a sentence when reading, including whether it names or describes a thing or an action
  - consulting reference materials, including glossaries and beginning dictionaries, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Explain the meaning of grade-appropriate compound words (e.g., *birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark*).

## Understanding the nuances of words (denotations and connotations)

### Core Standards — Students can and do:

4. Distinguish among related verbs (e.g., *toss, throw, hurl*) to gain a sense of their shadings of meaning.
5. Distinguish among related adjectives (e.g., *thin, slender, skinny, scrawny; irritated, mad, angry, furious*) to gain a sense of their shadings of meaning.

## Acquiring vocabulary

### **Core Standards — Students can and do:**

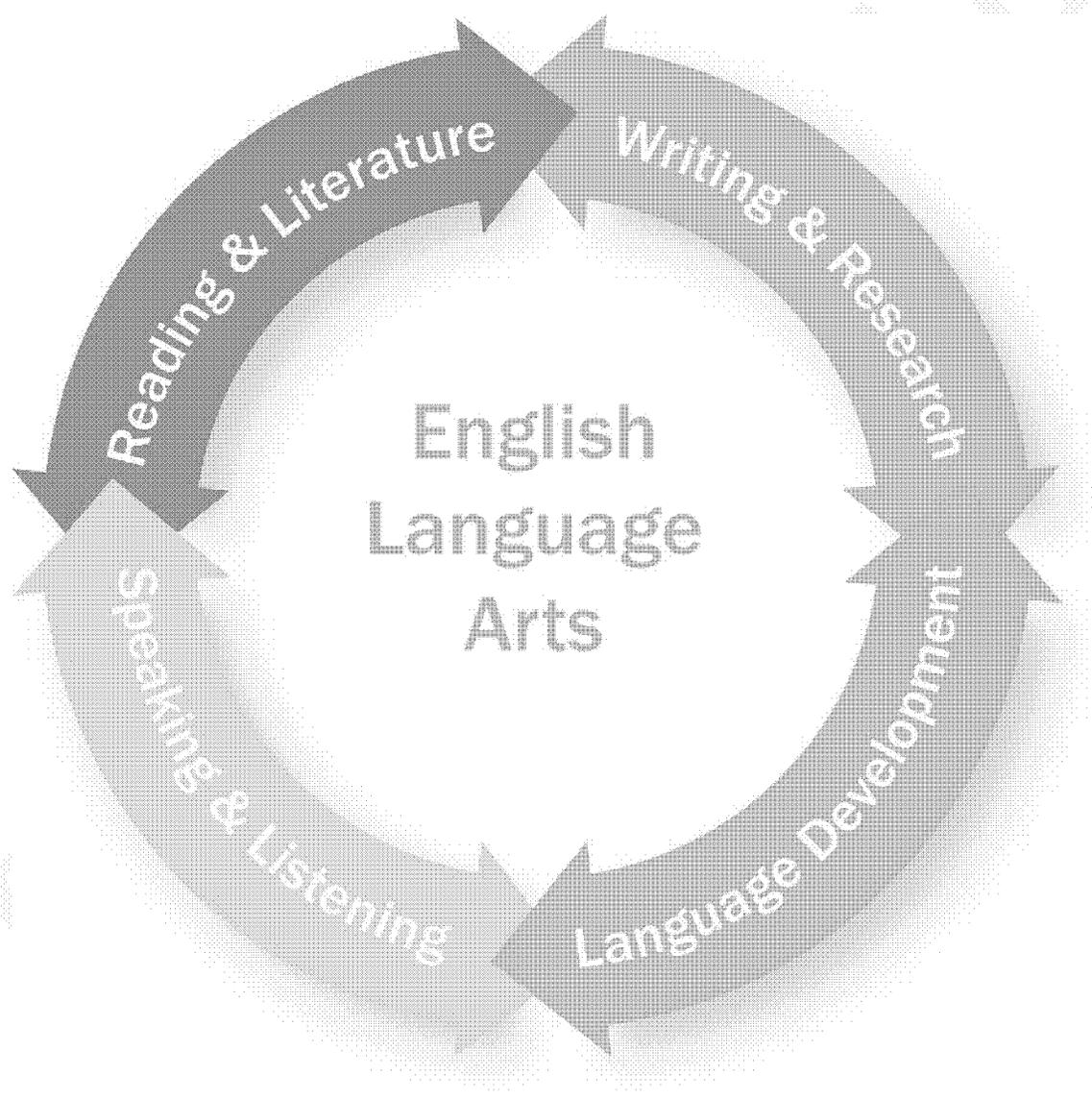
6. Acquire and use new vocabulary taught directly and gained through reading and conversations.

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# English Language Arts

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## Grade 3



## Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade

Grades	2–3 Level Text	4–5 Level Text
2	100%	
3	70%	30%

While advancing through the grades, students must engage with texts of steadily increasing complexity.

- **In grade 3**, students focus on reading texts in the 2–3 grade band level text (70 percent) independently and are introduced to texts in the 4–5 grade band level as “stretch” texts (30 percent), which will likely require scaffolding.

### Determining Text Complexity for Grades 2–3

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers’ professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of “best fit,” or determining which grade band’s set of descriptors most accurately describes the text.

Qualitative Measures of Texts <sup>13</sup>	Quantitative Measures of Texts
<ul style="list-style-type: none"> <li>• <i>Structure</i>: Explicit, simple, conventional; simple graphic representations are supplementary to meaning; texts are relatively short</li> <li>• <i>Purpose</i>: Single; explicitly stated</li> <li>• <i>Style and Language</i>: Familiar, accessible, plain; few literary devices; mostly clear, everyday language; limited use of Tier 2 and 3 words and figurative language</li> <li>• <i>Richness</i>: A few ideas/concepts; concrete; low information density</li> <li>• <i>Relationships</i>: A few connections; explicit</li> <li>• <i>Knowledge Demands</i>: Ability to handle simple themes and fantastical elements as well as draw upon common, everyday experiences; general background knowledge and familiarity with genre conventions required; some everyday and general content knowledge</li> </ul>	<p>A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.</p>
<p>Professional Judgment that weighs students’ prior knowledge and life experiences as well as their interests, motivations, and maturity level.</p>	

<sup>13</sup> Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

### Mix of Key Text Types for Grade 3

Narratives	Drama	Poetry	Informational Text
<i>At this level, includes children’s adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.</i>	<i>At this level, includes staged dialogue, scenes, and brief familiar scenes.</i>	<i>At this level, includes nursery rhymes, and the subgenres of narrative poems, limericks, and free verse.</i>	<i>At this level, includes books about science, history, and the arts and other nonfiction materials.</i>

#### Illustrative Texts for Narratives, Drama, and Poetry<sup>14</sup>

*My Father’s Dragon* by Ruth Stiles Gannett, illustrated by Ruth Chrisman Gannett (1948)

*Sarah, Plain and Tall* by Patricia MacLachlan (1985)

*The One-Eyed Giant (Book One of Tales from the Odyssey)* by Mary Pope Osborne (2002)

“Knoxville, Tennessee” by Nikki Giovanni (1968)

“Eating While Reading” by Gary Soto (1995)

#### Read Alouds:

“How the Camel Got His Hump” in *Just So Stories* by Rudyard Kipling (1902)

#### Illustrative Informational Text

*A Medieval Feast* by Alike (1983)

*So You Want to Be President?* by Judith St. George, illustrated by David Small (2000)

*Bat Loves the Night* by Nicola Davies, illustrated by Sarah Fox-Davies (2008)

*Moonshot: The Flight of Apollo 11* by Brian Floca (2009)

<sup>14</sup> See Appendix B for other texts illustrative of Grades 2-3 text complexity.

## Reading and Literature Standards

### Grasping specific details and key ideas

#### Core Standards — Students can and do:

1. Retell what the text says explicitly and make inferences required to understand the text.
2. Identify lessons or topics of the text and the key details that support them.
3. Describe in detail a specific character, event, or topic in the text.

#### Standards — Students can and do (by key text type):

##### Narratives, Drama, and Poetry

- a. ask and answer clarifying questions (e.g., how, why, where, when, who, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
- b. identify or infer the moral or lesson in well-known stories, fables, folktales, or myths
- c. describe how major events in a story often lead from problem to solution
- d. examine a specific incident in a story, narrative, or drama in depth, and establish when, where, and why it occurs
- e. describe characters based upon what they say and do

##### Informational Text

- a. accurately restate key information provided by the text
- b. ask and answer clarifying questions (e.g., how, why, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
- c. identify the main idea and supporting details and facts in a text
- d. explain the topic of each paragraph in a multi-paragraph text
- e. identify specific events in historical or scientific texts and discuss what happened, as well as where, when, and why it happened, according to facts taken from the text

## Reading Foundations

### Phonics and Word Recognition

1. Students know and apply grade-level phonics and word analysis skills in decoding words.
  - a. identify and know the meaning of the most common prefixes and derivational suffixes (e.g., *un-*, *re-*, *mis-*, *-ful*, *-tion*, *-able*)
  - b. decode regularly spelled single-syllable and multi-syllable words (e.g., *vocabulary*, *refrigerator*, *terrible*, *frightening*)
  - c. read grade-appropriate irregularly spelled words by sight
  - d. use phonics and word analysis to identify visually new words when reading

## Observing craft and structure

### Core Standards — Students can and do:

4. Explain the meanings of words and phrases as they are used in the text.
5. Gain familiarity with different ways of presenting stories and information in text.
6. Compare and contrast different versions of the same story or informational texts on the same subject.

### Standards — Students can and do (by key text type):

#### Narratives, Drama, and Poetry

- a. recognize sensory details and how they are used to describe events, feelings, and objects
- b. describe the different ways poets use rhyme, rhythm, and sensory images to convey a topic or message
- c. identify repetitions in phrases, refrains, or sounds in poems and songs
- d. describe story elements, including characters, setting, the problem, and how it is resolved
- e. discuss stories written by the same author about similar characters or compare different versions of similar well-known tales and myths from various cultures

#### Informational Text

- a. locate key words, facts, or other details using features of texts (e.g., captions, headings, glossaries, indexes, electronic menus, and icons)
- b. distinguish between writing that is based on real events and writing that is based on fantasy or fictional events
- c. combine information from two different parts of a text and identify how they are related (e.g., chronology, causation)
- d. after reading two passages on the same subject, combine the information to more fully describe a topic

## Integrating information and evaluating evidence

### Core Standards — Students can and do:

7. Locate and use information from graphs, illustrations, and electronic sources.
8. Identify and understand words and phrases that indicate logical relationships.
9. Identify who is telling the story or providing information at any given point in the text.

## Reading Foundations, continued

### Developing Fluency

2. Students read with sufficient accuracy and fluency to support comprehension.
  - a. demonstrate increased accuracy, fluency, and expression on successive readings of a text
  - b. use context to confirm or self-correct word recognition and understanding, rereading as necessary
  - c. read at least 20 minutes each day, in school or out

## Standards — Students can and do (by key text type):

### Narratives, Drama, and Poetry

- a. efficiently navigate stories in print and electronic text and explain how images and illustrations connect to and clarify the content
- b. identify who is telling the story or who is speaking in a drama

### Informational Text

- a. use information from visual elements of print and electronic texts (e.g., graphs, maps, charts, illustrations, photographs, diagrams) and explain how they help a reader understand the text
- b. identify words (e.g., *such as, because, therefore, in order to, since*) that logically connect ideas in sentences and paragraphs

## Developing habits for reading complex text

### Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding text.

## Writing and Research Standards

### Writing to reflect audience, purpose, and task

#### Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

### Conducting research

#### Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

### Revising writing

#### Core Standards — Students can and do:

3. With specific guidance, strengthen writing through revision.

### Using tools and technology

#### Core Standards — Students can and do:

4. Gain familiarity with technology and other tools to produce, revise, and edit writing.

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## Standards — Students can and do (by key text type):<sup>15</sup>

### Narratives

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- a. set the time, indicate a location, introduce characters, or enter immediately into the story line to engage the reader
- b. recount a single, well-elaborated event or a sequence of events that unfold naturally using temporal words, phrases, and clauses
- c. tell what the narrator thought or felt
- d. develop a focus, provide pacing, and include only relevant information
- e. develop a character through the description of external behavior
- f. provide descriptive details
- g. employ dialogue and other narrative strategies
- h. provide a satisfying conclusion that is reflective and/or that effectively ties up loose ends

### Informative and Explanatory Texts

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- a. produce an introduction that names the topic and provides at least one general detail about it
- b. create an organizational structure that presents similar information together, frequently patterned after chapter book headings or picture books
- c. use adequate, relevant, and specific facts and definitions to develop points
- d. logically categorize details and facts drawn from personal experience and other sources
- e. use linking words, such as *also*, *another*, *and*, and *more*, to connect ideas within categories of information, and use headers to signal groupings
- f. include only appropriate information
- g. include a concluding sentence or section

### Arguments (opinions)

---

- a. introduce the topic or book(s) directly, and attempt to capture the reader's interest
- b. state an opinion relative to the topic (e.g., *This is a good book* or *John is a good friend*)
- c. provide facts and details to support the opinion
- d. create a list-like organizing structure that provides reasons for the opinion
- e. use appropriate words to link and organize opinions and reason(s) (e.g., *because*, *another*, *and*, *also*)
- f. refer to the text(s) when writing about literature
- g. provide a concluding statement, reflection, and/or recommendation

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<sup>15</sup> See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

## Speaking and Listening Standards

### Listening critically and participating productively

#### Core Standards — Students can and do:

1. Participate productively in small groups and as a class, engaging in a series of oral exchanges about texts and topics.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by paraphrasing the information.

#### Standards — Students can and do (by key communication type):

##### Classroom discussions and participating productively

- a. engage in conversations on familiar topics
- b. paraphrase the key information or ideas of others presented orally or through other media
- c. inquire about oral or visual presentations to deepen understanding or clarify comprehension
- d. link additions to conversation to the previous remarks of others
- e. participate productively by listening politely to the ideas of others, taking turns speaking, and extending their ideas in light of discussions

### Exchanging information and speaking effectively

#### Core Standards — Students can and do:

3. Share experiences and ideas, thinking about the needs of their listeners.
4. Speak audibly and clearly at an understandable pace.

#### Standards — Students can and do (by key communication type):

##### Presentation of ideas and information

- a. recount stories or experiences with descriptive details by answering who, what, where, when, how, and why questions about them
- b. report on a topic, including appropriate facts and details
- c. use appropriate tone to express ideas, feelings, and needs clearly
- d. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

## Language Development Standards

### Conventions

By grade 3, students have learned the foundations of written and spoken language, including letter, word, and sentence formation and crucial forms of punctuation. They ensure agreement between subject and verb and between pronoun and antecedent in simple situations. Students use quotation marks to indicate dialogue. They know most of the conventions of spelling and consult references to look up words when they still have difficulty. They use precise everyday language to describe and begin to consider the effects of word choice in writing and speaking.

Key Terms: subject-verb and pronoun-antecedent agreement, comma splice, fragment, run-on, quotation mark

#### Conventions of language and writing

##### Core Standards — Students can and do:

1. Group related ideas into a paragraph.

#### Grammar and usage

##### Core Standards — Students can and do:

2. Generate complete sentences, avoiding fragments, comma splices, and run-ons.\*
3. Ensure subject-verb and pronoun-antecedent agreement.\*

#### Mechanics

##### Core Standards — Students can and do:

4. Use quotation marks in dialogue.
5. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing regular words.
6. Consult reference materials, including dictionaries, to check and correct spellings.

#### Word choice and style

##### Core Standards — Students can and do:

7. Use precise everyday language.
8. Choose words for effect.\*<sup>16</sup>

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<sup>16</sup> Conventions standards noted with an asterisk (\*) need to be revisited by students in subsequent grades. See Appendix A for a full listing.

## Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grade 3, students use their repertoire of strategies to determine and clarify the meaning of unknown and multiple-meaning words. They know that words are sometimes used in nonliteral ways and can use that knowledge to help them understand common idioms. They learn and can paraphrase many common idioms and sayings. They recognize that words have nuances in meaning and rely on context and background knowledge to sort among related words that describe abstract concepts. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly.

### Determining the meaning of words

#### Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
  - using prefixes and suffixes when it is a multimorpheme word (e.g., *thoughtless*, *recycle*, *unforgettable*)
  - determining how it is used in a sentence when reading
  - consulting reference materials, including glossaries and dictionaries, both print and digital
2. Determine the meaning of multiple-meaning words by using context.
3. Distinguish between literal and nonliteral uses of language.
4. Paraphrase the meaning of common idioms and sayings.

### Understanding the nuances of words (denotations and connotations)

#### Core Standards — Students can and do:

5. Distinguish among related words that describe states of mind, degrees of certainty, or other abstract concepts (e.g., *knew*, *believed*, *suspected*, *heard*, *wondered*).

### Acquiring vocabulary

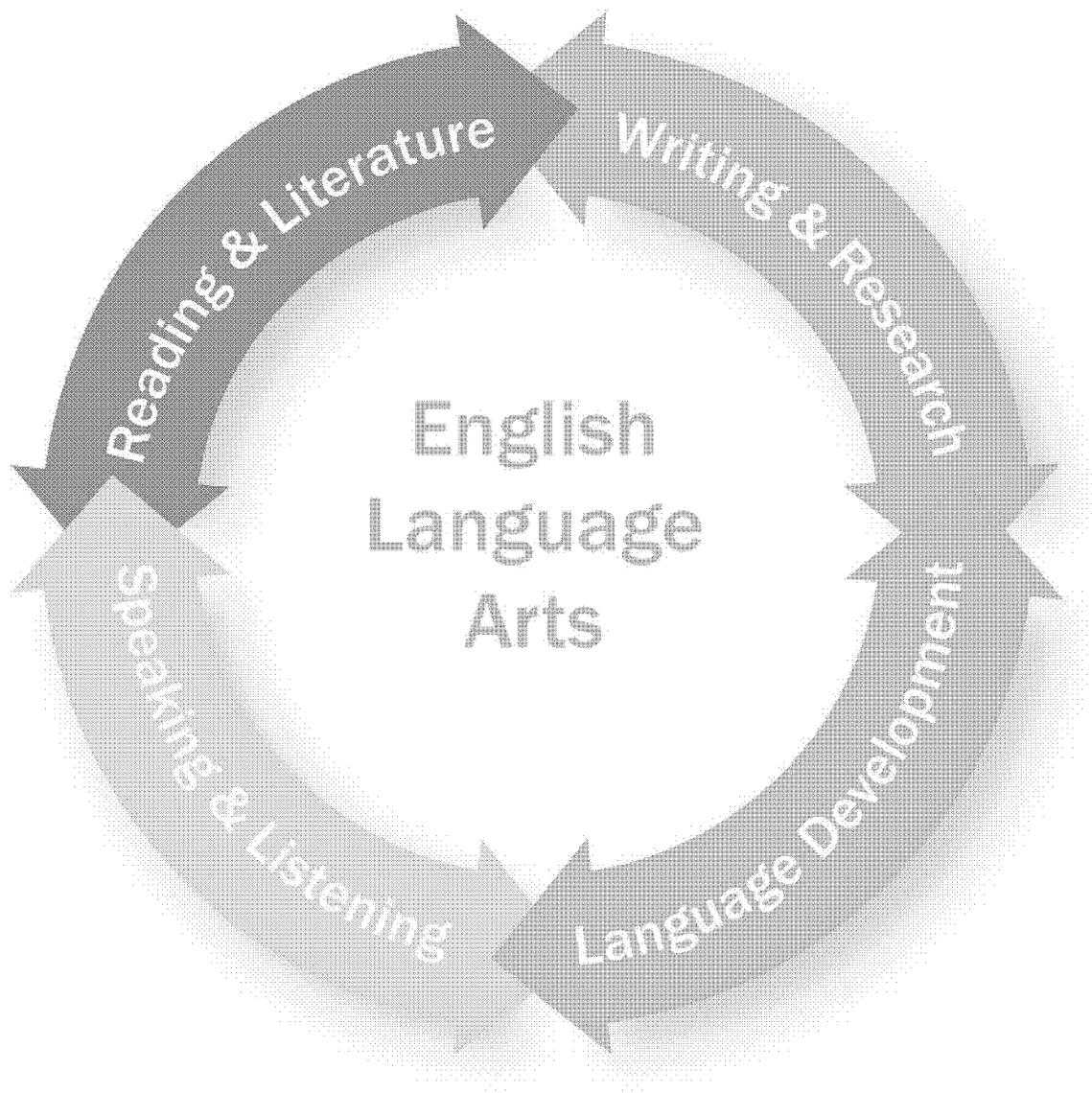
#### Core Standards — Students can and do:

6. Acquire and use new vocabulary taught directly and gained through reading and conversations.

# English Language Arts

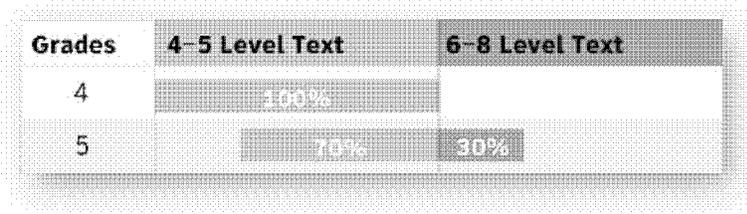
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Grades 4–5



## Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through grades 4–5, students must engage with texts of steadily increasing complexity.

- **In grade 4**, students focus on reading texts in the 4–5 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 5**, students focus on reading in the 4–5 grade band level (70 percent) independently and are introduced to texts in the 6–8 grade band level as “stretch” texts (30 percent), which will likely require scaffolding.

### Determining Text Complexity for Grades 4–5<sup>17</sup>

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers’ professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of “best fit,” or determining which grade band’s set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
<ul style="list-style-type: none"> <li>• <i>Structure</i>: Largely explicit and direct; graphic representations are supplementary to meaning; texts are of increasing length</li> <li>• <i>Purpose</i>: Single or twofold; clearly indicated</li> <li>• <i>Style and Language</i>: Moderately accessible; some literary devices; some everyday language; some use of Tier 2 and Tier 3 words and figurative language</li> <li>• <i>Richness</i>: Some ideas/concepts; mostly concrete; moderate information density</li> <li>• <i>Relationships</i>: Some connections; largely explicit</li> <li>• <i>Knowledge Demands</i>: Ability to handle fairly simple themes, consider a perspective somewhat different from one’s own, and understand unfamiliar experiences; general background knowledge and familiarity with genre conventions required; some general and discipline-specific content knowledge</li> </ul>	<p>A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.</p>
<p>Professional Judgment that weighs students’ prior knowledge and life experiences as well as their interests, motivations, and maturity level.</p>	

<sup>17</sup> Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

### Mix of Key Text Types for Grades 4–5

Narratives	Drama	Poetry	Informational Text
<i>At this level, includes children’s adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.</i>	<i>At this level, includes staged dialogue and brief familiar scenes.</i>	<i>At this level, includes nursery rhymes, and the subgenres of narrative poems, limericks, and free verse.</i>	<i>At this level, includes books about science, history, and the arts and other nonfiction materials and digital media sources on a range of topics.</i>

<b>Illustrative Texts for Narratives, Drama, and Poetry<sup>18</sup></b>	<b>Illustrative Informational Texts</b>
<i>Alice in Wonderland</i> by Lewis Carroll (1865)	<i>Discovering Mars</i> by Melvin Berger (1992)
<i>The Little Prince</i> by Antoine de Saint-Exupery (1943)	<i>Hurricanes: Earth’s Mightiest Storms</i> by Patricia Lauber (1996)
<i>Bud, Not Buddy</i> by Christopher Paul Curtis (1999)	“Ancient Mound Builders” by E. Barrie Kavash from <i>Cobblestone</i> (2003)
“The Echoing Green” from <i>Songs of Innocence</i> by William Blake (1789)	<i>Volcanoes</i> by Seymour Simon (2006)
“Casey at the Bat” by Ernest Lawrence Thayer (1888)	“Kenya’s Long Dry Season” by Nellie Gonzalez Cutler from <i>Time for Kids</i> (2009)
“Words Free As Confetti” by Pat Mora (1996)	“Seeing Eye to Eye” by Leslie Hall from <i>National Geographic Explorer</i> (2009)
<i>Where the Mountain Meets the Moon</i> by Grace Lin (2009)	

<sup>18</sup> See Appendix B for other texts illustrative of Grades 4-5 text complexity.

## Reading and Literature Standards

### Grasping specific details and key ideas

#### Core Standards — Students can and do:

1. Determine what the text says explicitly and make inferences required for understanding; explain how those inferences stem from the text.
2. Articulate the main ideas and themes of the text and provide a summary that captures the key supporting details.
3. Describe in detail two or more characters, events, or topics in the text and explain how they are related to one another.

#### Standards — Students can and do (by key text type):

##### Narratives, Drama, and Poetry

- a. determine the theme of a story or drama, basing the understanding of theme on how characters adapt or change in response to the challenges posed in the plot
- b. summarize accurately the significant events of a play or narrative in chronological order, describing where, when, why, and how specific actions take place
- c. describe characters based on evidence from their thoughts, words, deeds, and interactions with others
- d. describe the setting in detail, drawing on evidence of the time, place, and other cues
- e. determine the theme of a poem, basing the understanding of theme on the key observations, images, or statements in a poem

##### Informational Text

- a. outline the main and supporting ideas in the text and provide an accurate summary
- b. identify the topic sentence and gist of each paragraph in a multi-paragraph text
- c. describe related events in a history text or related topics in a science text and explain the relationships between the events or topics

### Observing craft and structure

#### Core Standards — Students can and do:

4. Explain the meanings of words and phrases in the text, distinguishing literal and figurative uses.
5. Comprehend literature and information presented in a range of structures.
6. Compare and contrast texts written on the same topic or theme and explain how they are different and similar.

#### Standards — Students can and do (by key text type):

##### Narratives, Drama, and Poetry

- a. describe the sensory details in texts and distinguish the use of literal versus figurative language
- b. observe and explain how words with similar meanings can have different connotations
- c. identify the meaning of figurative phrases and culturally significant characters found in mythology that are integral to understanding other works of literature and texts (e.g., *Herculean*, *Pandora's box*)
- d. identify how narratives and plays are structured to describe the progress of characters through a series of events and challenges

- e. identify rhymes and other repetitions of sounds that supply rhythm and pattern in poems and narrative prose
- f. compare a narrative or a play with a presentation in another format, such as film, stage, or interactive text, and note what is surprising or different about the alternative version
- g. compare works of literature on the same topic or with a similar theme

#### Informational Text

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- a. explain the meaning of key words and terms as they are used in the text
- b. understand information drawn from a variety of texts with different structures, such as chronological, compare-and-contrast, or as a chain of causes and effects
- c. identify and use text features (e.g., bold print, key words, topic sentences, hyperlinks, electronic menus, and icons) to locate information quickly and aid in comprehension
- d. compare and contrast related accounts on the same or similar topics by different authors, by analyzing their content and perspectives

### Integrating information and evaluating evidence

#### Core Standards — Students can and do:

- 7. Explain and use information presented graphically or visually in print, videos, or electronic texts.
- 8. Outline the information or evidence used to support an explanation or argument, determining which points support which key statements.
- 9. Determine the point of view or purpose that guides how events or ideas are described.

#### Standards — Students can and do (by key text type):

##### Narratives, Drama, and Poetry

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- a. identify the narrator of a story and explain how different stories are narrated from different perspectives
- b. compare accounts of historical events and figures or natural phenomena with their depiction in a fictional work

##### Informational Text

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- a. explain how factual information presented graphically or visually (e.g., maps, charts, diagrams, timelines, animations, and other interactive visual elements) aids in the comprehension of print and electronic texts
- b. explain how authors support their specific claims with evidence, including which evidence supports which claims
- c. determine the author's purpose and how that is reflected in the description of the events and ideas

### Developing habits for reading complex text

#### Core Standards — Students can and do:

- 10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

## Writing and Research Standards

### Writing to reflect audience, purpose, and task

#### Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and arguments that demonstrate an awareness of audiences that are familiar and known to the student.

### Conducting research

#### Core Standards — Students can and do:

2. Perform short, focused research tasks that build knowledge by exploring aspects of a single topic.
3. Gather information from experience, as well as print and digital resources.
4. Determine the accuracy and relevance of the information gathered to answer specific questions.
5. Restate information from source materials in one's own words, through summary or paraphrase.
6. Provide basic bibliographic information for print and digital sources.

### Revising writing

#### Core Standards — Students can and do:

7. With guidance and support from peers and adults, strengthen writing through revision, editing, or beginning again to maintain a clear focus throughout.

### Using tools and technology

#### Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and edit writing.

### Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

Focus by grade level:

Grade 4: Describing the content of literary or informational sources at the 4-5 grade band level of text complexity and content

Grade 5: Comparing the contents of literary or informational sources at the 4-5 grade band level of complexity and content

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## Standards — Students can and do (by key text type):<sup>19</sup>

### Narratives

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- a. orient the reader by establishing a situation, introducing characters, setting, and location, or by backfilling information after entering immediately into the storyline
- b. create an organizing structure in which events are logically or causally sequenced
- c. in producing a story, create a plot with an initiating event, complicating action, a climax, and a resolution
- d. use a variety of temporal words, phrases, and clauses to signal sequence
- e. use concrete and sensory details to develop narrative elements
- f. develop the narrative using techniques such as dialogue, pacing, and reporting the narrator's thoughts
- g. show both external behaviors and the internal responses of characters to events
- h. provide closure and a realistic outcome of the narrative's events

### Informative and Explanatory Texts

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- a. state the topic clearly and provide a general observation and focus
- b. develop the subject using relevant facts, concrete details, quotations, or other information and examples
- c. group related information logically in basic structures (paragraphs, sections) and provide headings or illustrations when useful
- d. employ specialized vocabulary and a formal, objective style when appropriate
- e. use appropriate links to join ideas
- f. include only relevant appropriate information to demonstrate focus
- g. provide a conclusion related to the information or explanation offered

### Arguments (opinions)

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- a. introduce an opinion about a concrete issue or topic
- b. support opinions with relevant reasons
- c. support reasons with specific details
- d. link the reasons together using words, phrases, and clauses (e.g., *because*, *since*)
- e. adopt a relatively formal style for sharing and defending an opinion when appropriate to the discipline or context
- f. provide a concluding statement or section that offers reflections, restatement, or recommendations consistent with the opinion presented

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## Speaking and Listening Standards

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### Listening closely and participating productively

#### Core Standards — Students can and do:

1. Participate productively one on one, in small groups, and as a whole class, joining in discussions and making relevant points about what they have read, heard, or written.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by summarizing the main ideas and supporting details.

#### Standards — Students can and do (by key communication type):

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<sup>19</sup> See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

#### Classroom discussions and collaboration

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- a. come to discussions having read required material and, in conversation, build upon background knowledge from that material and other information known about the topic
- b. demonstrate understanding of the content and ideas presented or discussed by distilling them into an accurate summary
- c. ask questions to clarify or follow up on ideas or information presented orally or through other media
- d. respond to questions and make comments that contribute to the topic and ideas of previous speakers
- e. explain information presented graphically or visually in conjunction with other information presented orally
- f. engage productively and respectfully with others during discussions, including listening actively, gaining the floor respectfully, and qualifying or justifying what they think after listening to others' questions or accounts

#### Exchanging information and speaking effectively

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##### **Core Standards — Students can and do:**

3. Share experiences, opinions or other information, choosing material that is relevant to the topic and to the listeners.
4. Speak audibly and clearly at an appropriate and understandable pace, using formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

##### **Standards — Students can and do (by key communication type):**

###### Presentation of ideas and information

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- a. speak coherently about events, topics, or texts that focus and organize ideas in a logical sequence and include facts, details, or other information that support the main ideas
- b. use appropriate volume, phrasing, and pace for clarity
- c. read aloud prose and poetry, with appropriate emotion and fidelity to the text

## Language Development Standards

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### Conventions

In grades 4–5, students heighten their ability to situate and describe using language that is increasingly precise and vivid. They form and use verbs of various tenses to locate people, actions, and events in time, and they correctly use adjectives and adverbs to modify. Students begin to gain control of frequently confused words (e.g., *effect*, *affect*) and edit writing to remove language that is not idiomatic. Their mastery of capitalization is complete. They use punctuation to separate items in a series and a comma to distinguish an introductory element from the main part of the sentence. Students mark titles in conventional ways. They understand how to quote and use quotation marks. Their spelling is conventional. Their language is increasingly topic specific, precise, and varied, and they manipulate sentence structure for effect.

Key Terms: adjective; adverb; interjection; preposition; simple, progressive, and perfect tense

#### Conventions of language and writing

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##### **Core Standards — Students can and do:**

1. Maintain the focus of a paragraph on a topic through structural elements such as main ideas, supporting sentences, and transitions.

## Grammar and usage

### Core Standards — Students can and do:

2. Form and use the simple (e.g., *I walked, I walk, I will walk*), progressive (e.g., *I was walking, I am walking, I will be walking*) and the perfect (e.g., *I had walked, I have walked, I will have walked*) verb tenses.
3. Recognize and correct inappropriate shifts in verb tense.\*
4. Form and choose between adjectives and adverbs (including comparative and superlative forms), placing them appropriately within the sentence.\*
5. Correctly use frequently confused words.\*
6. Use idiomatic language.\*

## Mechanics

### Core Standards — Students can and do:

7. Capitalize the first word in quotations as appropriate and other important words, such as section headers.
8. Use punctuation to separate items in a series.\*
9. Use a comma to separate an introductory element from the rest of the sentence.
10. Use underlining, quotation marks, or italics to indicate titles of works.
11. Use quotation marks to mark direct speech and quotations from a text.
12. Spell grade-appropriate words correctly, consulting references as needed.\*

## Word choice and style

### Core Standards — Students can and do:

13. Use specialized, topic-specific language to convey ideas precisely.\*
14. Use figurative language to create images or make comparisons and connections between people, objects, or ideas.\*
15. Use punctuation for effect.\*
16. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.\*<sup>20</sup>

### Focus by Grade-Level

Grade 4: Distinguish one idea or thing from another (Conventions Standards #'s 1-3, #8, #9, #11)

Grade 5: Word choice (Conventions Standards #'s 4-6, #13, #14)

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<sup>20</sup> Conventions standards noted with an asterisk (\*) need to be revisited by students in subsequent grades. See Appendix A for a complete listing.

## Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grades 4–5, students are capable of selecting among a wide range of strategies—analyzing the word itself, using localized context clues (particularly at the sentence level), and consulting reference materials—to determine and clarify the meaning of unknown and multiple-meaning words. They develop the habit of verifying their inferences of word meanings. They are able to interpret simple figurative language found in what they read. They learn and can paraphrase many common idioms, proverbs, and adages. They make distinctions among words based on connotation. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a focus on “Tier 2” words and phrases (those that commonly appear in writing but not in spoken language), “Tier 3” words and phrases (those that are specific and important to particular disciplines).<sup>21</sup>

### Determining the meaning of words

#### Core Standards – Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
  - analyzing the word's sounds, spelling, and meaningful word parts
  - using semantic clues in sentences, such as definitions, examples, or restatements included within the text
  - using syntactic clues, such as using its position within the sentence as a guide to whether it represents a thing or an action
  - consulting reference materials, including glossaries, dictionaries, and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language, including simple similes and metaphors.
5. Paraphrase the meaning of common idioms, adages, and proverbs.

### Understanding the nuances of words (denotations and connotations)

#### Core Standards – Students can and do:

6. Distinguish a word from other words with similar but not identical meanings (synonyms).

### Acquiring vocabulary

#### Core Standards – Students can and do:

7. Acquire and use a grade-appropriate vocabulary of Tier 2<sup>22</sup> words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.
9. Know and use words and phrases that signal contrast, addition, or other logical relationships (e.g., *however*, *although*, *nevertheless*, *similarly*, *moreover*, *in addition*).

<sup>21</sup> Beck I. L., McKeown, M.G. & Kucan, L. (2002). *Brining Words to Life; Robust Vocabulary Instruction*, New York; Guilford Press

## Grade 4 English Language Arts: Focus for Instruction

### Reading and Literature

*In grade 4, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 4-5 grade band level independently, with scaffolding likely required for texts at the high end of the range.*

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% text at the 4-5 grade band level

100%

### Writing and Research

*In grade 4, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.*

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by describing the contents of literary or informational sources at the 4-5 grade band level of complexity and content

### Speaking and Listening

*In grade 4, students apply the core speaking and listening standards in different contexts.*

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentation of ideas and information

### Language Development

*In grade 4, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.*

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Distinguish one idea or thing from another:
  - Maintain the focus of a paragraph on a topic ... (Conventions Standard #1)
  - Form and use the simple, progressive and perfect verb tenses ... (Conventions Standard #2)
  - Recognize and correct inappropriate shifts in verb tense. (Conventions Standard #3)
  - Use punctuation to separate items in a series ... (Conventions Standard #8)
  - Use a comma to separate an introductory element ... (Conventions Standard #9)
  - Use quotation marks to mark direct speech and quotations ... (Conventions Standard #11)

# Grade 5 English Language Arts: Focus for Instruction

## Reading and Literature

*In grade 5, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 4-5 grade band level independently and are introduced to 6-8 grade band “stretch” texts, which will likely require scaffolding.*

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% text at the 4-5 grade band level, 30% text at the 6-8 grade band level

70%

30%

## Writing and Research

*In grade 5, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. There also write over various time frames in response to specific sources.*

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by comparing the contents of literary or informational sources at the 4-5 grade band level of complexity and content.

## Speaking and Listening

*In grade 5, students apply the speaking and listening standards in different contexts.*

- Speaking and listening Standards applied in different contexts: classroom discussion and collaboration as well as in presentation of ideas and information.

## Language Development

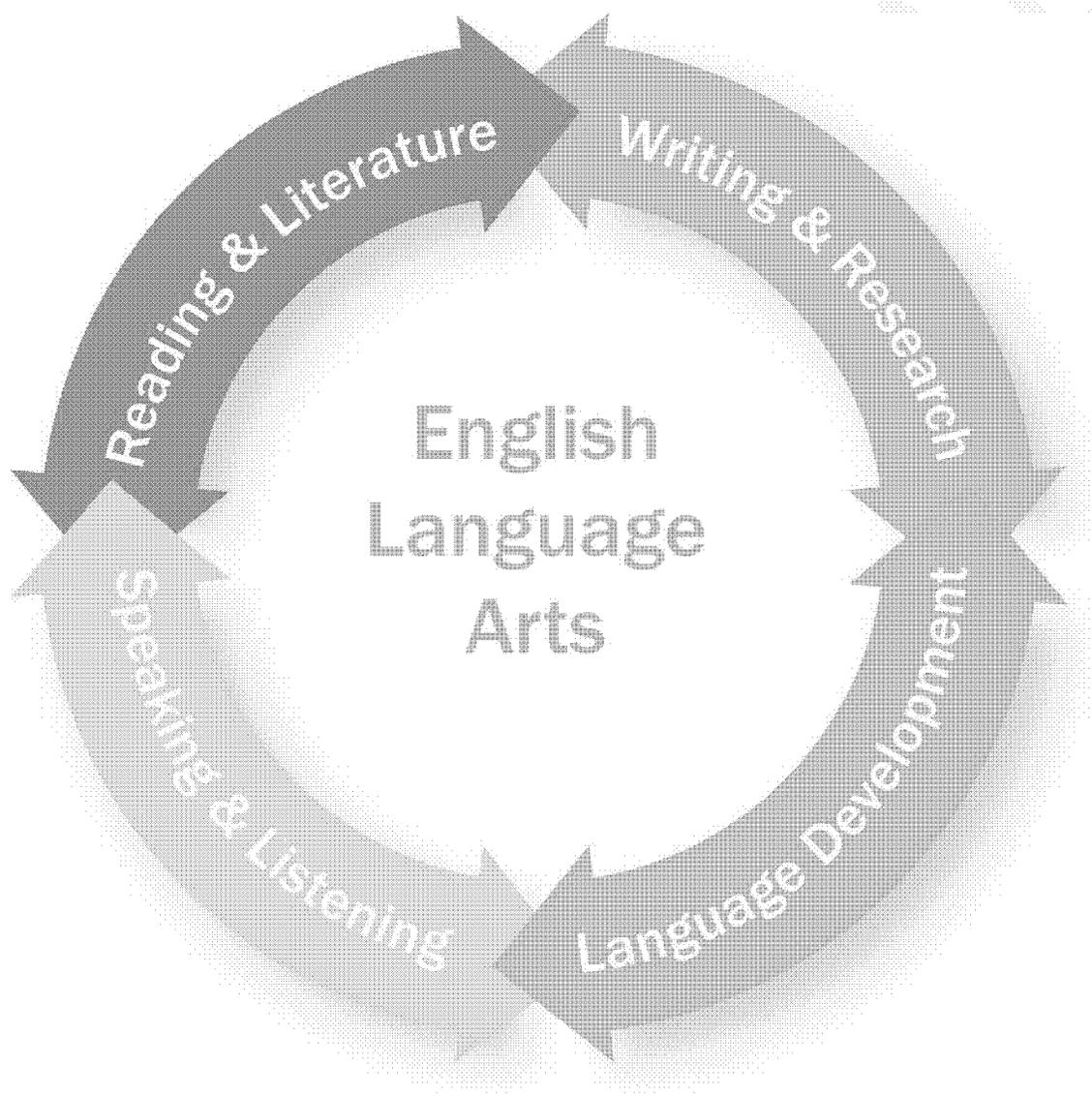
*In grade 5, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions,*

- Vocabulary standards applied to both reading, writing, speaking and listening
- **Grade-specific conventions focus:** Word choice
  - Form and choose between adjectives and adverbs. (Conventions Standard #4)
  - Correctly use frequently confused words. (Conventions Standard #5)
  - Use idiomatic language. (Conventions Standard #6)
  - Use specialized, topic specific language to convey ideas precisely. (Conventions Standard #13)
  - Use figurative language to create images ... (Conventions Standard #14)

# English Language Arts

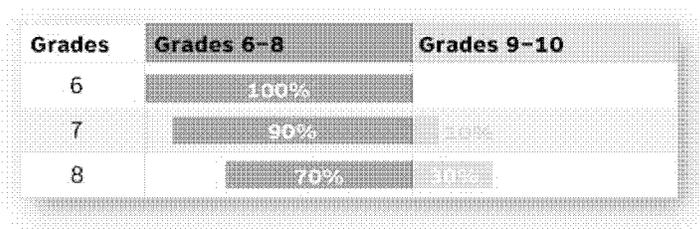
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Grades 6–8



## Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through grades 6–8, students must engage with texts of steadily increasing complexity.

- **In grade 6**, students focus on reading texts in the 6–8 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 7**, students focus on reading texts in the 6–8 grade band level (90 percent) independently and are introduced to texts in the 9–10 grade band level as “stretch” texts (10 percent), which will likely require scaffolding.
- **In grade 8**, students focus on reading texts in the 6–8 grade band level (70 percent) independently as well as sustained practice with texts in the 9–10 grade band level as “stretch” texts (30 percent), which will likely require scaffolding.

### Determining Text Complexity for Grades 6–8<sup>23</sup>

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers’ professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of “best fit,” or determining which grade band’s set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
<ul style="list-style-type: none"> <li>• <i>Structure</i>: Largely implicit and subtle; graphic representations are essential to meaning; texts are of increasing length</li> <li>• <i>Purpose</i>: Single or multiple; subtly stated</li> <li>• <i>Style and Language</i>: Moderately demanding; several literary devices; consistent use of Tier 2 and 3 words and figurative language</li> <li>• <i>Richness</i>: Several ideas/concepts; mostly abstract; moderate information density</li> <li>• <i>Relationships</i>: Several connections; largely implicit</li> <li>• <i>Knowledge Demands</i>: Ability to handle fairly challenging themes, consider multiple perspectives, and understand unfamiliar experiences; cultural and historical knowledge useful for understanding characters, settings, and allusions; some discipline-specific content knowledge</li> </ul>	<p>A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.</p>
<p>Professional Judgment that weighs students’ prior knowledge and life experiences as well as their interests, motivations, and maturity level.</p>	

<sup>23</sup> Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

### Mix of Key Text Types for Grades 6–8

Narratives	Drama	Poetry	Informational Text
<i>At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, folktales, legends, fables, tall tales, myths, fantasy, science fiction, realistic fiction, and graphic novels.</i>	<i>At this level, includes one-act and multi-act plays both as text and film.</i>	<i>At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.</i>	<i>At this level, includes such subgenres as exposition and argument in the form of essays, opinion pieces, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.</i>

Illustrative Texts for Narratives, Drama, and Poetry <sup>24</sup>	Illustrative Informational Texts
<p><i>Little Women</i> by Louisa May Alcott (1869)</p> <p><i>The Adventures of Tom Sawyer</i> by Mark Twain (1876)</p> <p><i>A Wrinkle in Time</i> by Madeline L’Engle (1962)</p> <p><i>The Dark Is Rising</i> by Susan Cooper (1973)</p> <p><i>Black Ships before Troy: The Story of the Iliad</i> by Rosemary Sutcliff (1993)</p> <p><i>A Midsummer Night’s Dream</i> by William Shakespeare (1596)</p> <p>“Oh Captain, My Captain” by Walt Whitman (1865)</p> <p>“Stopping by a Wood on a Snowy Evening” by Robert Frost (1923)</p> <p>“I, Too” by Langston Hughes (1925)</p>	<p><i>Preamble and First Amendment to the United States Constitution</i> by United States (1787, 1791) **</p> <p><i>Narrative of the Life of Frederick Douglass an American Slave</i> by Frederick Douglass (1845)</p> <p>“Gettysburg Address”** by Abraham Lincoln (1863)</p> <p>“Blood, Toil, Tears and Sweat” by Winston Churchill (1940)</p> <p><i>Travels with Charley: In Search of America</i> by John Steinbeck (1962)</p> <p><i>I Know Why the Caged Bird Sings</i> by Maya Angelou (1969)</p>

**\*\*Seminal historical texts that all students are expected to read**

<sup>24</sup> See Appendix B for other texts illustrative of Grades 6-8 text complexity.

# Reading and Literature Standards

## Grasping specific details and key ideas

### Core Standards – Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to support understanding in discussion and in writing.
2. Articulate the text's main ideas and themes and provide a summary that captures the key supporting details, without taking a position or expressing an opinion.
3. Explain in detail how events, ideas, and characters unfold in the text and interact with one another.

### Standards – Students can and do (by key text type):

#### Narratives, Drama, and Poetry

- a. infer themes when they are not explicitly stated and provide evidence on which those inferences are based
- b. analyze the development of the narrative, describing how particular incidents advance or foreshadow the plot
- c. recognize how the setting unfolds over the course of the text and describe its significance to the work
- d. build on an author's explicit descriptions and other evidence to draw reasonable conclusions about characters and how they interact, change, and influence the central events
- e. describe how a play unfolds and how particular lines of dialogue propel the action, reveal aspects of a character, or provoke a decision
- f. analyze how patterns of imagery in a poem contribute to its overall theme or meaning

#### Informational Text

- a. summarize a text without expressing a personal opinion by drawing on the author's specific description of events or information
- b. determine how key ideas or concepts build on one another to reveal an overarching theme or idea

## Observing craft and structure

### Core Standards – Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and explain how specific word choices shape the meaning of the text.
5. Explain the text's structure, including how specific sentences, paragraphs, and larger portions build on each other and contribute to the whole of the text.
6. Compare and contrast how two or more texts written on similar topics or themes differ in their focus and key details.

### Standards – Students can and do (by key text type):

#### Narratives, Drama, and Poetry

- a. analyze how the author's choice of specific words or details contributes to the understanding of events and characters or to the tone of a narrative
- b. trace the specific comparisons made by similes, metaphors, and analogies and explain how they contribute to the meaning of the text
- c. compare similar ideas and themes as well as character types in myths, folktales, and legends from different cultures

- d. analyze the impact of line breaks and stanzas on the meaning of a poem and acts, scenes, and stage directions on the meaning of a drama
- e. compare the events, characters, ideas, and themes in texts written by the same author or on similar topics or themes

#### Informational Text

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- a. interpret the connotative meaning of closely related words and phrases as they are used in the text (e.g., *angry* versus *irate*)
- b. describe how an author organizes the explanation or argument, as well as the ways in which the text's structure, language, and examples support its purpose
- c. examine the structure of a Web site or other electronic text and describe how it organizes information and links to additional sources

### Integrating information and evaluating evidence

#### Core Standards — Students can and do:

- 7. Interpret information presented graphically or visually in print, videos, or electronic texts and explain how this information clarifies and contributes to the text.
- 8. Analyze the structure and content of an argument, including its main claims or conclusions, supporting premises, and evidence.
- 9. Determine the point of view or purpose represented in the text, assessing how it shapes the content.

#### Standards — Students can and do (by key text type):

##### Narratives, Drama, and Poetry

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- a. compare the points of view from which different novels and poems are told, as well as the viewpoints of different characters in a drama
- b. compare the fictional portrayal of a time, place, or character to historical sources from the period to determine which historical details have been emphasized, deleted, or changed in the fictional portrayal

##### Informational Text

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- a. interpret factual and quantitative data presented in diverse formats (including maps, charts, and diagrams as well as electronic media) and explain how this information clarifies or contributes to the text
- b. distinguish between fact, opinion, and reasoned judgment presented in essays, speeches, and critiques
- c. evaluate the strength of an argument's premises and specific claims as well as the degree to which each is supported by evidence
- d. compare and contrast the viewpoints and use of evidence of two different authors writing about the same topic

### Developing habits for reading complex text

#### Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

## Writing and Research Standards

### Writing to reflect audience, purpose, and task

#### Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and arguments that match purpose to task and address familiar as well as somewhat distant audiences (e.g., mayor, readers of school or neighborhood newspaper).

### Conducting research

#### Core Standards — Students can and do:

2. Perform short, focused research projects that demonstrate understanding of the material under investigation and generate additional related questions for research.
3. Gather information independently using a variety of relevant print and digital resources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered.
5. Represent and cite accurately the data, conclusions, and opinions of others, quoting and paraphrasing them into one's own work while avoiding plagiarism.
6. Provide full bibliographic information for print and digital sources in a standard format and document quotations, paraphrases, and other information.

### Revising writing

#### Core Standards — Students can and do:

7. With some guidance and support from peers and adults, strengthen writing through revising, editing, or beginning again to ensure logical organization, precision of word choice, and coherence.

### Using tools and technology

#### Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and distribute writing, as well as interact online with others about writing, including responding to and providing feedback

### Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

Focus by grade level:

- Grade 6: Conveying the main ideas and key details of literary or informational sources at the 6-8 grade band level of text complexity and content
- Grade 7: Analyzing the contents of literary or informational sources at the 6-8 grade band level of complexity and content
- Grade 8: Comparing or evaluating the contents of literary or informational sources at the 6-8 grade band level of complexity and content

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## Standards — Students can and do (by key text type):<sup>25</sup>

### Narratives

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- a. orient the reader by establishing a situation, introducing characters, setting, and location, or by backfilling information after entering immediately into the storyline
- b. create an organizing structure in which events are logically or causally sequenced
- c. in producing a story, create a plot with well-structured episodes (e.g., initiating event, complicating action, resolution)
- d. use a variety of temporal words, phrases, and clauses to convey sequence, to shift from one time frame to another, and to show the relationships among events
- e. use relevant, specific details and literary devices, such as imagery and metaphor, purposefully to develop setting, plot, and character
- f. use techniques such as pacing, dialogue, or foreshadowing to highlight the significance of events or create particular effects (e.g., tension or suspense)
- g. show internal mental processes to develop complex characters and convey their needs, motives, and emotional responses
- h. provide an engaging conclusion, such as a surprise ending, a reflection, or a conclusion that returns to the beginning

### Informative and Explanatory Texts

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- a. establish the topic in an introduction that provides a sense of what's to follow
- b. develop the subject through relevant and specific facts, concrete details, quotations, or other information and examples
- c. organize specific information under broader concepts or categories and provide headings, figures, tables, or diagrams when useful
- d. use factual, precise language and maintain a formal, objective style when appropriate
- e. use strategies appropriate to informational and explanatory texts such as defining, classifying, comparing/contrasting, and cause/effect
- f. use appropriate links to join ideas and create cohesion
- g. provide only accurate and relevant information
- h. provide a conclusion that follows logically from the information or explanation presented

### Arguments

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- a. introduce a claim about a topic or concept
- b. support claims with logical reasons
- c. support reasons with detailed and relevant evidence

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<sup>25</sup> See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

- d. signal the relationship between reasons, or between reasons and evidence, using words, phrases, and clauses (e.g., *another reason, such as, therefore, in addition*)
- e. sustain an objective style and tone appropriate for making a case when appropriate to the discipline or context
- f. include only relevant information and evidence in support of claims
- g. provide a concluding statement or section that offers reflections, a restatement, or recommendations that follow from the argument

## Speaking and Listening Standards

### Listening closely and participating productively

#### Core Standards — Students can and do:

1. Participate productively one on one, in small groups, and as a whole class, joining in discussions and remaining flexible and adaptable as participants.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by drawing well-supported inferences about the purpose and meaning of the information.

#### Standards — Students can and do (by key communication type):

##### Classroom discussions and collaboration

- a. come to discussions having completed reading or other preparation in advance and draw on that material explicitly in discussions
- b. determine a speaker's attitude or point of view toward a topic presented orally or through other media
- c. ask questions to check understanding to clarify the main ideas and the supporting evidence of material presented orally or through other media
- d. advance a discussion by answering questions precisely and sharing specific factual knowledge and observations supported by credible evidence
- e. interpret information presented in visual and digital formats and explain how this data clarifies and contributes to a discussion or information presented orally
- f. support productive teamwork by setting clear goals and deadlines, monitoring progress and participation of each team member, and taking different views into account and modifying own views when indicated in light of what others say

### Exchanging information and speaking effectively

#### Core Standards — Students can and do:

3. Share experiences, opinions, and other information, gaining and maintaining the interest and response of listeners.
4. Use appropriate tone and phrasing for emphasis, demonstrating a growing command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

#### Standards — Students can and do (by key communication type):

### Presentation of ideas and information

- a. organize and present information about situations, topics, or texts that emphasize salient points and clarify and support claims and findings with pertinent and specific descriptions, facts, and examples in ways that are accessible and verifiable to listeners
- b. use gesture, tone, phrasing, and pace for emphasis
- c. incorporate visual displays and electronic media when helpful and in a manner that strengthens the presentation
- d. perform dramatic readings of various prose and poetry speaking with clarity, fidelity, and responsiveness to the text, noting changes in the situation, mood, or tone of text

## Language Development Standards

### Conventions

In grades 6–8, students develop a firm command of sentence structure. They are able to form sentences of varying structures, place phrases and clauses properly within a sentence, and use a variety of coordinating and subordinating conjunctions to express relationships between sentence parts. Students have also mastered pronoun use, ensuring proper case, number, and person and avoiding vagueness. They understand and use verb voice and mood, and identify and correct inappropriate shifts in pronouns and verbs. Students set off nonrestrictive or parenthetical elements from the rest of the sentence with proper punctuation and use a comma before a coordinating conjunction in a compound sentence. They vary sentence patterns for effect and edit writing for redundancy and wordiness.

Key Terms: conjunction; dash; nonrestrictive/parenthetical element; indicative, imperative, interrogative, conditional, and subjunctive mood; parentheses; phrase and clause; pronoun case, number, and person; simple, compound, complex, and compound-complex sentence; active and passive voice

### Grammar and usage

#### Core Standards — Students can and do:

1. Form compound, complex, and compound-complex sentences.
2. Place phrases and clauses within a sentence, avoiding misplaced and dangling modifiers.\*
3. Ensure that pronouns are in the proper case (subjective, objective, possessive).
4. Recognize and correct inappropriate shifts in pronoun number and person.\*
5. Recognize and correct vague pronouns with unclear or ambiguous antecedents.\*
6. Form and use verbs in the active and passive voice.
7. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.
8. Avoid inappropriate shifts in verb voice and mood.\*

### Mechanics

#### Core Standards — Students can and do:

9. Use punctuation to set off nonrestrictive/parenthetical elements with commas, parentheses, or dashes.\*
10. Use a comma before a coordinating conjunction in a compound sentence.

## Word choice and style

### Core Standards — Students can and do:

11. Use verbs in the active and passive voice and in the conditional and subjunctive moods to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).
12. Vary sentence patterns for meaning, reader/listener interest, and style.\*
13. Choose words and phrases to express ideas precisely and concisely, avoiding wordiness and redundancy.\*<sup>26</sup>

### Grade-Level Focus

#### Focus by Grade-Level

Grade 6: Pronouns (Conventions Standards #s 3-5)

Grade 7: Sentence structure (Conventions Standards #1, #2, #12)

Grade 8: Verb voice and mood (Conventions Standards #s 6-8, #11)

## Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grades 6–8, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering the word's use in a broader context that includes the content of the paragraph in which the word appears and the overarching structure of the text. They habitually verify their inferences of word meanings. They interpret a variety of figurative language found in what they read. They make distinctions among words based on connotation. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on “Tier 2” words and phrases (those that commonly appear in writing but not in spoken language), “Tier 3” words and phrases (those that are specific and important to particular disciplines).

## Determining the meaning of words

### Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
  - using knowledge of roots, prefixes, and suffixes
  - using semantic clues, such as sentence and paragraph context as well as the organizational structure of the text (e.g., cause and effect, comparison and contrast)
  - using syntactic clues, such as using its position within the sentence as a guide to whether it is a subject, verb, or object
  - consulting reference materials, including glossaries, dictionaries, and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language, including metaphors, similes, and idioms.

<sup>26</sup> Conventions standards noted with an asterisk (\*) need to be revisited by students in subsequent grades. See Appendix A for a complete listing.

## Understanding the nuances of words (denotations and connotations)

### **Core Standards — Students can and do:**

5. Distinguish a word from other words with similar but not identical meanings (synonyms).

## Acquiring vocabulary

### **Core Standards — Students can and do:**

6. Acquire and use a grade-appropriate vocabulary of Tier 2 words taught directly and gained through reading.
7. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

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## Grade 6 English Language Arts: Focus for Instruction

### Reading and Literature

*In grade 6, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 6-8 grade band level independently, with scaffolding likely required for texts at the high end of the range.*

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% text at the 6-8 grade band level

100%

### Writing and Research

*In grade 6, students apply the writing standards to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.*

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter time frames, responding to specific sources by conveying the main ideas and key details of literary or informational sources at the 6-8 grade band level of complexity and content.

### Speaking and Listening

*In grade 6, students apply the core speaking and listening standards in different contexts.*

- Speaking and listening Standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

### Language Development

*In grade 6, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions*

- Vocabulary standards applied to both reading, writing, speaking and listening
- **Grade-specific conventions focus:** Pronouns
  - Ensure that pronouns are in the proper case... (Conventions Standard #3)
  - Recognize and correct inappropriate shifts... (Conventions Standard #4)
  - Recognize and correct vague pronouns... (Conventions Standard #5)

## Grade 7 English Language Arts: Focus for Instruction

### Reading and Literature

*In grade 7, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 6-8 grade band level independently and are introduced to 9-10 grade band level “stretch” texts, which will likely require scaffolding.*

- Reading Standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 90% at the 6-8 grade band level, 10% at the 9-10 grade band level

90%

10%

### Writing and Research

*In grade 7, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.*

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 6-8<sup>th</sup> grade band level of complexity and content.

### Speaking and Listening

*In grade 7, students apply the core speaking and listening standards in different contexts.*

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

### Language Development

*In grade 7, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.*

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Sentence structure
  - Form compound, complex... (Conventions Standard #1)
  - Place phrases and clauses... (Conventions Standard #2)
  - Vary sentence patterns... (Conventions Standard #12)

## Grade 8 English Language Arts: Focus for Instruction

### Reading and Literature

*In grade 8, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on reading text at the 6-8 grade band level independently as well as on sustained practice with 9-10 grade band level “stretch” texts, which may require scaffolding.*

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% at the 6-8 grade band level, 30% at the 9-10 grade band level

70%

30%

### Writing and Research

*In grade 8, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.*

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 6-8<sup>th</sup> grade band level of complexity and content.

### Speaking and Listening

*In grade 8, students apply the core speaking and listening standards in different contexts.*

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

### Language Development

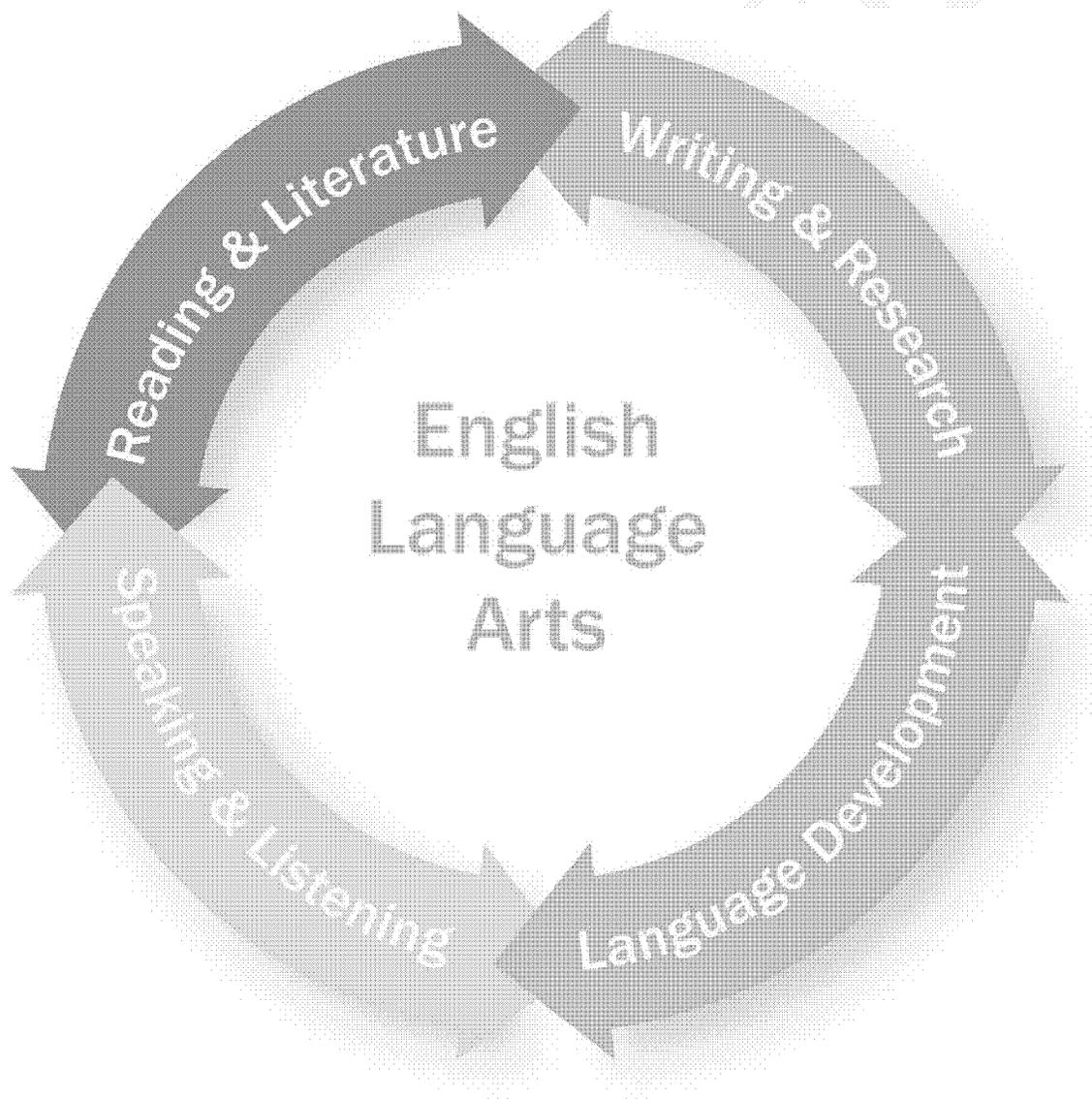
*In grade 8, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.*

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Verb voice and mood
  - Form and use verbs in the active and passive voice (Conventions Standard #6)
  - Form and use verbs in the indicative... (Conventions Standard #7)
  - Avoid inappropriate shifts... (Conventions Standard #8)
  - Use verbs in the ...voice ...mood... (Conventions standard #11)

# English Language Arts

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## Grades 9–10



## Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade

Grades	9–10 Level Text	11–CCR Level Text	Beyond CCR
9	100%		
10	70%	30%	
11		50%	
12		70%	30%

While advancing through grades 9–10, students must engage with texts of steadily increasing complexity.

- **In grade 9**, students focus on reading texts in the 9–10 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 10**, students focus on reading texts in the 9–10 grade band level (70 percent) independently and are introduced to texts in the 11–CCR grade band level as “stretch” texts (30 percent), which will likely require scaffolding.

### Determining Text Complexity for Grades 9–10<sup>27</sup>

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers’ professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of “best fit,” or determining which grade band’s set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
<ul style="list-style-type: none"> <li>• <i>Structure</i>: Implicit, subtle; graphic representations are essential to meaning; texts of increasing length</li> <li>• <i>Purpose</i>: Multiple; often implicit</li> <li>• <i>Style and Language</i>: Demanding; many literary devices; extensive use of Tier 2 and 3 words and figurative language</li> <li>• <i>Richness</i>: Several ideas/concepts; abstract</li> <li>• <i>Relationships</i>: Several connections; implicit</li> <li>• <i>Knowledge Demands</i>: Ability to handle challenging themes, consider multiple perspectives, and understand experiences distinctly different from one’s own; cultural and historical knowledge useful for understanding characters, settings, and allusions; extensive discipline-specific content knowledge</li> </ul>	<p>A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.</p>
<p>Professional Judgment that weighs students’ prior knowledge and life experiences as well as their interests, motivations, and maturity level.</p>	

<sup>27</sup> Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

### Mix of Key Text Types for 9–10

Narratives	Drama	Poetry	Informational Text
<i>At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, science fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels.</i>	<i>At this level, includes one-act and multi-act plays both in written form and on film.</i>	<i>At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.</i>	<i>At this level, Includes such subgenres as exposition and argument in the form of essays, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.</i>

#### Illustrative Texts for Narratives, Drama, and Poetry<sup>28</sup>

*The Odyssey* by Homer (8<sup>th</sup> century B.C.E.) translated by Robert Fagles

*The Grapes of Wrath* by John Steinbeck (1939)

*The Killer Angels* by Michael Shaara (1975)

*In the Time of the Butterflies* by Julia Alvarez (1994)

*The Glass Menagerie* by Tennessee Williams (1944)

“Song” by John Donne (1635)

“The Raven” by Edgar Allen Poe (1845)

“Loveliest of Trees” by A.E. Houseman (1896)

“I Am Offering This Poem to You” by Jimmy Santiago Baca (1977)

#### Illustrative Informational Texts

“Second Inaugural Address” by Abraham Lincoln (1865)\*\*

“State of the Union Address” by Franklin Delano Roosevelt (1941)

“Remarks to the Senate in Support of a Declaration of Conscience” by Margaret Chase Smith (1950)

“Address at the March on Washington” by Martin Luther King, Jr. (1963)\*\*

“A Quilt of a Country” by Anna Quindlen (2001)

**\*\*Seminal historical texts that all students are expected to read**

<sup>28</sup> See Appendix B for other texts illustrative of Grades 9–10 text complexity.

## Reading and Literature Standards

### Grasping specific details and key ideas

#### Core Standards — Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to support analyses in discussion and in writing.
2. Articulate the theses and themes and summarize how they develop over the course of the text and how they are expressed by the key details.
3. Analyze in detail how complex and multifaceted events, ideas, and characters unfold and interact over the course of the text.

#### Standards — Students can and do (by key text type):

##### Narratives, Drama, and Poetry

- a. draw on specific details to describe how the events, characters, or setting develops over the course of the drama, narrative poem, or story
- b. summarize the development of a theme and describe how that theme resonates throughout the text
- c. weave together the details of texts to form a comprehensive understanding of its characters, including their overlapping or competing motivations
- d. describe how the accumulation of specific phrases and images within poems contributes to a theme as a whole

##### Informational Text

- a. demonstrate a command of the precise details of the exposition or argument, drawing on specific points to support an understanding of a part or the text as a whole
- b. analyze the development of theses or explanations in texts and summarize succinctly the key relationships among ideas and supporting details

### Observing craft and structure

#### Core Standards — Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and explain how specific word choices shape the meaning and tone of the text.
5. Analyze the structure of complex text and its parts, including how specific sentences, paragraphs, and larger portions build on each other and contribute to the whole of the text.
6. Compare and contrast the content and style of two or more texts written on similar topics or themes.

#### Standards — Students can and do (by key text type):

##### Narratives, Drama, and Poetry

- a. analyze how the precise choice of words and phrases creates vivid images and sets the tone, mood, and theme of the text; compare the impact of words selected by the author to similar words with different connotations

- b. explain how authors manipulate time (e.g., flashbacks, foreshadowing, pacing) to create suspense, mystery, or humor
- c. evaluate how playwrights use soliloquies to portray the internal thinking and feeling of characters
- d. compare and contrast similarities and differences in styles and forms of poems on a similar theme or topic

#### Informational Text

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- a. analyze how the author uses specific words and metaphors to establish tone or to make illuminating comparisons in an argument, explanation, or description
- b. explain how the author structures information or an argument to emphasize key points and advance a point of view
- c. analyze how different authors organize and categorize similar information and describe the impact of those different approaches

### Integrating information and evaluating evidence

#### Core Standards — Students can and do:

- 7. Synthesize information presented graphically or visually in print, videos, or electronic texts with the information provided by the text.
- 8. Follow and evaluate the logic and reasoning of the text, including assessing whether the evidence provided is sufficient to support the claims.
- 9. Analyze the point of view or purpose represented in the text, assessing how it shapes the content, style, and tone.

#### Standards — Students can and do (by key text type):

##### Narratives, Drama, and Poetry

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- a. explain how a story unfolds when it is told by alternating or multiple narrators with different points of view
- b. analyze literature in terms of its connection to related historical and cultural events and contexts

##### Informational Text

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- a. interpret complex, multifaceted, quantitative, or technical information presented in maps, charts, illustrations, graphs, and time lines
- b. provide an account of an author's precise claims, including how specific assertions are defined and distinguished from opposing statements
- c. analyze the explicit and implicit premises of an argument and determine if the conclusions reached are logically justified by the evidence presented in the text
- d. compare how different authors construct and develop different points of views or perspectives on similar events or issues by assessing their assumptions, evidence, and reasoning

### Developing habits for reading complex text

#### Core Standards — Students can and do:

- 10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

## Writing and Research Standards

### Writing to reflect audience, purpose, and task

#### Core Standards — Students can and do:

1. Write informative and explanatory texts and arguments that match purpose to task and address familiar as well as more distant, unknown and general audiences (e.g., peers, elected officials and policy makers, community members).

### Conducting research

#### Core Standards — Students can and do:

2. Demonstrate proficiency at performing short, focused research projects as well as more sustained inquiries that demonstrate an increasing command of the subject under investigation.
3. Assemble evidence independently from authoritative and credible print and digital sources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered and determine the strengths and limitations of each source and avoiding over-reliance on any one source.
5. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.
6. Cite print or electronic sources correctly and document quotations, paraphrases, graphics, and other information using a standard format.

### Revising writing

#### Core Standards — Students can and do:

7. Strengthen writing through revision, editing, or beginning again to ensure to ensure logical organization, precision of word choice, and coherence.

### Using tools and technology

#### Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and distribute writing, as well as to interact online with others about writing, including responding to and providing feedback.

### Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

Focus by grade level:

Grade 9: Analyzing the content of literary or informational sources at the 9-10 grade band level of text complexity and content

Grade 10: Comparing or evaluating the contents of literary or informational sources at the 9-10 grade band level of complexity and content

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## Standards — Students can and do (by key text type):<sup>29</sup>

### Narratives

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By high school, students are most often using narrative writing as a technique embedded within other genres. They use narrative writing to inform and persuade. They may, for example, provide a brief anecdote to support a point made in an argument or a scenario to illustrate an explanation. In such cases, narrative writing is a technique rather than a form in itself.

### Informative and Explanatory Texts

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- a. provide a clear and coherent introduction that establishes the subject and conveys a knowledgeable stance
- b. develop a complex subject through relevant and specific facts, concrete details, quotations, or other information and examples
- c. organize complex information into categories that make clear distinctions and provide headings, figures, tables, and diagrams when useful
- d. employ discipline-specific and technical vocabulary and maintain a formal, objective style
- e. adapt strategies to present information and explanations (e.g., if/then, extended definitions, classification, comparison/contrast, and cause/effect) and employ them to manage the complexity of a topic
- f. link ideas with transitions and by varying sentence structures to express relationships between ideas and create cohesion
- g. emphasize the most significant information and confirm the accuracy of key points
- h. provide a conclusion that articulates the implications and significance of the information or explanation

### Arguments

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- a. establish a substantive claim and distinguish it from alternate or opposing claims
- b. support claims with logical reasons
- c. provide relevant and sufficient evidence from credible sources in support of the reasons
- d. explain how the evidence links to the claim
- e. develop the argument in part based on knowledge of the audience (e.g., building bridges by opening with areas of agreement)
- f. convey relationships between reasons, as well as between reasons and evidence, and signal alternative claims using words, phrases, and clauses (e.g., *on the other hand*, *however*, *but*, *nevertheless*, *because*, *therefore*, *in addition*).
- g. maintain a formal style when appropriate to the discipline or context
- h. enhance the reliability of the argument by employing strategies such as paraphrasing or quoting explicitly from a credible, authoritative source
- i. provide a concluding statement or section that enhances the argument, using strategies such as articulating the implications, summing up the key factors, or weighing the evidence to support the claim

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## Speaking and Listening Standards

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### Listening closely and participating productively

#### Core Standards — Students can and do:

1. Participate productively in a range of structured interactions—both interpersonally and in groups—exchanging information constructively and with confidence.

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<sup>29</sup> See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

2. Sustain concentration on complex information presented orally, visually, or multi-modally and confirm understanding by summarizing, analyzing, and elaborating on key ideas.

### **Standards — Students can and do (by key communication type):**

#### Classroom discussions and collaboration

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- a. come to discussions having researched, studied, and taken notes on topics or issues under study and draw upon that preparation in discussions
- b. determine the key ideas as well as the tone and mood of communications presented orally or through other media
- c. ask questions to test the evidence that supports a speaker’s claims and conclusions presented orally or through other media
- d. build on essential information from others’ input and respond constructively by making cogent and verifiable comments that aid in the furthering and deepening of discussions
- e. integrate multiple streams of data presented through a variety of multi-modal media into a cohesive, meaningful understanding of the information
- f. support productive teamwork by identifying the comments and claims made on all sides of an issue; evaluating the degree to which each claim is supported by evidence; sifting, summarizing, and putting to use the most important ideas developed by the group; and determining what additional information, research, and tasks are required in order to move the group towards its goals

#### Exchanging information and speaking effectively

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### **Core Standards — Students can and do:**

3. Present information and points of view, structuring and organizing comments to support their purposes and guide the listener.
4. Vary intonation and phrasing for emphasis and effect, demonstrating command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

### **Standards — Students can and do (by key communication type):**

#### Presentation of ideas and information

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- a. organize and present complex information about situations, topics, or texts so that listeners can follow the line of thought by grouping related ideas, using transitional markers, and clarifying one’s claims with evidence that is verifiable and accessible
- b. align verbal (tone, phrasing, pacing) and nonverbal strategies (gestures and facial expressions) for emphasis and effect
- c. make strategic use of multimedia elements and visual displays of data to enhance understanding
- d. perform dramatic readings of various prose and poetry, speaking with clarity, fidelity, and responsiveness to the text, reflecting on syntax and diction for cues regarding emphasis and rhythm

## **Language Development Standards**

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### **Conventions**

In high school, students gain a broad range of sophisticated language skills to enhance meaning, achieve stylistic effect, and create subtle links between and among ideas. They maintain parallel structure. They acquire a more conceptual understanding of usage and the limits of “rules.” They use a full range of punctuation, including ellipses, semicolons,

colons, and hyphens, and have a fuller understanding of how to employ commas and dashes. They make use of a wide range of phrases and clauses for effect. They maintain a consistent style and tone, using a style manual appropriate to the discipline in which they are working to help conventionalize their writing.

Key Terms: colon, ellipses, hyphen, semicolon, parallel structure, verbal

## Grammar and usage

### Core Standards — Students can and do:

1. Use parallel structure in writing.
2. Consult references (e.g., *Merriam-Webster's Dictionary of English Usage*) as needed to resolve particular usage issues, particularly when the usage is contested.

## Mechanics

### Core Standards — Students can and do:

3. Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore a light[,] blue suit*).
4. Use a comma, ellipses, or dash to indicate a pause or break.
5. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.
6. Use a colon to introduce a list or a quotation.
7. Observe the conventions concerning using hyphens to join words.

## Word choice and style

### Core Standards — Students can and do:

8. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to add variety and interest to writing.
9. Maintain consistency in style and tone.
10. Write and edit work so that it conforms to the guidelines in a style manual.

### Focus by Grade-Level

Grade 9: Style (Conventions Standards #9, #10)

Grade 10: Advanced punctuation use (Conventions Standards #s 3-7)

## Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In high school, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering multiple levels of context (sentence, paragraph, and text levels) and the word's history. They habitually verify their inferences of word meanings. They interpret a wide range of figurative language found in what they read and consider its contribution to the text. Possessing a highly developed sense of the shadings among words with similar denotations,

they evaluate an author’s or speaker’s choice of words as well as alternatives to the words chosen. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on “Tier 2” words and phrases (those that commonly appear in writing but not in spoken language), “Tier 3” words and phrases (those that are specific and important to particular disciplines).

### Determining the meaning of words

#### Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
  - using knowledge of roots, prefixes, and suffixes
  - using context, including syntactic and semantic clues, at the sentence, paragraph, and text levels
  - consulting reference materials, including general and specialized dictionaries and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word’s meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language and analyze its role within the text.

### Understanding the nuances of words (denotations and connotations)

#### Core Standards — Students can and do:

5. Assess and explain the merits of the choice of one word over another in reading, writing, speaking, and listening.
6. Gain a clearer sense of a word’s meaning and use by comparing it to other words with similar but not identical meanings (synonyms).

### Acquiring vocabulary

#### Core Standards — Students can and do:

7. Acquire and use a grade-appropriate vocabulary of Tier 2 words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

## Grade 9 English Language Arts: Focus for Instruction

### Reading and Literature

*In grade 9, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 9-10 grade band text independently, with scaffolding likely required for texts at the high end of the range.*

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% 9-10 Band Text

100%

### Writing and Research

*In grade 9, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.*

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus: Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 9-10<sup>th</sup> grade band level of complexity and content.

### Speaking and Listening

*In grade 9, students apply the core speaking and listening standards in different contexts.*

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

### Language Development

*In grade 9, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.*

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus: Style**
  - Maintain consistency ... (Conventions Standard #9)
  - (Style manual)... (Conventions Standard #10)

## Grade 10 English Language Arts: Focus for Instruction

### Reading and Literature

*In grade 10, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 9-10 grade band text independently as well as on sustained practice with 11-CCR band “stretch” texts, which will likely require scaffolding.*

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% 9-10 Band Text; 30% 11-CCR text

70%

30%

### Writing and Research

*In grade 10, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.*

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 9-10<sup>th</sup> grade band level of complexity and content.

### Speaking and Listening

*In grade 10, students apply the core speaking and listening standards in different contexts.*

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

### Language Development

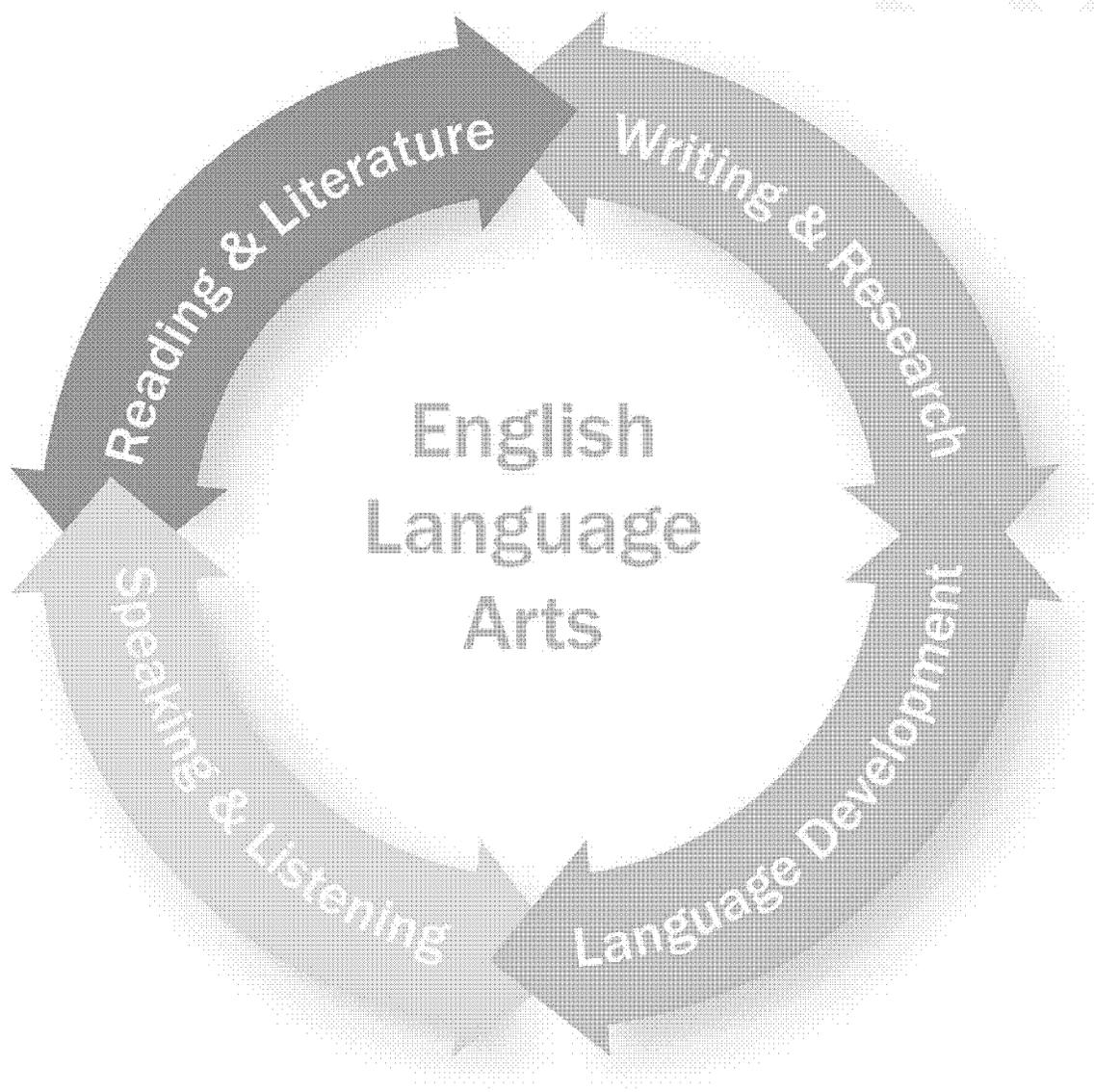
*In grade 10, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.*

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Advanced Punctuation Use
  - Coordinate adjectives ... (Conventions Standard #3)
  - Comma/dash/ellipsis... (Conventions Standard #4)
  - Semicolon ... (Conventions Standard #5)
  - Colon ... (Conventions Standard #6)
  - Hyphen ... (Conventions Standard #7)

# English Language Arts

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Grades 11–CCR



## Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grad

Grades	9–10 Level Text	11–CCR Level Text	Beyond CCR
9	100%		
10	70%	10%	
11		100%	
12		70%	30%

While advancing through grades 11-12, students must engage with texts of steadily increasing complexity.

- **In grade 11**, students focus on reading texts in the 11-CCR grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 12**, students focus on reading texts in the 11-CCR grade band level (70 percent) independently and are introduced to texts in the “Beyond CCR” grade band level as “stretch” texts (30 percent), which will likely require scaffolding.

### Determining Text Complexity for Grades 11–CCR<sup>30</sup>

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers’ professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of “best fit,” or determining which grade band’s set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
<ul style="list-style-type: none"> <li>• <i>Structure</i>: Implicit, complex, unconventional; sophisticated graphic representations are essential to meaning; texts are sufficiently long to address complex subjects</li> <li>• <i>Purpose</i>: Multiple; often implicit and may be hidden or obscure</li> <li>• <i>Style and Language</i>: Unfamiliar, demanding, complex; many literary devices; extensive use of Tier 2 and 3 words and figurative language; language may be intentionally or unintentionally ambiguous</li> <li>• <i>Richness</i>: Many ideas/concepts; highly abstract; high information density</li> <li>• <i>Relationships</i>: Many implicit, complex, interwoven connections</li> <li>• <i>Knowledge Demands</i>: Ability to handle one or more complex themes, consider multiple and unusual perspectives, and understand experiences distinctly different from one’s own; cultural and historical knowledge useful for understanding characters, settings, and allusions; extensive, perhaps specialized discipline-specific content knowledge</li> </ul>	<p>A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.</p>
<p>Professional Judgment that weighs students’ prior knowledge and life experiences, students’ interests, motivations, and maturity level.</p>	

<sup>30</sup> Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

### Mix of Key Text Types for 11–CCR

Narratives	Drama	Poetry	Informational Text
At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, science fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels.	At this level, includes one-act and multi-act plays both in written form and on film.	At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.	At this level, Includes such subgenres as exposition and argument in the form of essays, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.

#### Illustrative Texts for Narratives, Drama, and Poetry<sup>31</sup>

- Pride and Prejudice* by Jane Austen (1813)
- Black Boy* by Richard Wright (1945)
- Their Eyes Were Watching God* by Zora Neale Hurston (1937)
- The Bluest Eye* by Toni Morrison (1970)
- The Namesake* by Jhumpa Lahiri (2003)
- The Importance of Being Earnest* by Oscar Wilde (1895)
- Death of a Salesman* by Arthur Miller (1949)
- “Ode on a Grecian Urn” by John Keats (1820)
- “Because I Could Not Stop for Death” by Emily Dickinson (1890)

#### Illustrative Informational Texts

- The Declaration of Independence* by Thomas Jefferson (1776)\*\*
- The Crisis* by Thomas Paine (1776)
- Walden* by Henry David Thoreau (1854)
- “Politics and the English Language” by George Orwell (1946)
- “Letter from a Birmingham Jail” by Martin Luther King (1963)\*\*
- “Mother Tongue” by Amy Tan (1990)

**\*\*Seminal historical texts that all students are expected to read**

<sup>31</sup> See Appendix B for other texts illustrative of Grades 11–CCR text complexity.

# Reading and Literature Standards

## Grasping specific details and key ideas

### Core Standards – Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to defend and challenge analyses in discussion and in writing.
2. Articulate the text's theses and themes and provide a summary that clarifies the relationships among ideas and the connections between key details.
3. Analyze in detail how complex and multifaceted events, ideas, and characters unfold and influence one another over the course of the text.

### Standards – Students can and do (by key text type):

#### Narratives, Drama, and Poetry

- a. analyze where the author chooses to focus and which details the author chooses to emphasize
- b. analyze how multiple themes and ideas in the text interact and build on one another
- c. evaluate the extent to which setting shapes the course of events and sets the mood
- d. trace the origins and evolution of the traits, motivations, and relationships among characters and how they interact to influence the plot and its resolution
- e. describe how the poet develops a central image, preoccupation, or idea through the accumulation of specific phrases and images

#### Informational Text

- a. demonstrate an understanding of the precise elements of an author's explanation or argument, including the distinctions the author makes between different ideas or information
- b. scrutinize the details within specific portions of texts and connect the insights gained to develop an understanding of the text as a whole
- c. analyze how the text captures the interaction between complex ideas or multifaceted events

## Observing craft and structure

### Core Standards – Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and analyze how word choices have a significant effect on the meaning and tone of the text.
5. Analyze the ways the author chooses to structure the text, including how to present complex ideas and events and where to begin and end.
6. Compare and contrast the choices different authors make in treating similar topics or themes, including content, style, and tone.

## **Standards – Students can and do (by key text type):**

### Narratives, Drama, and Poetry

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- a. analyze how the author’s use of language impacts the text, including the degree of formality of the diction and how it is evocative of a particular setting (e.g., a courtroom, a rural town)
- b. evaluate how authors create meaningful ambiguity and multiple layers of meaning in poetry, drama, and other narratives
- c. analyze how an author choice of where to begin a story, poem, or drama impacts the overall plot structure
- d. contrast alternative treatments of the same dramatic work in different stage productions and evaluate how the directors’ different interpretations relate to evidence within the script
- e. analyze how the author draws upon and transforms fictional or historical source material (e.g., how Shakespeare draws on Plutarch or a story in Ovid)

### Informational Text

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- a. describe how the choice of a particular word, phrase, or series of words can impact significantly the meaning of a document (e.g., contract, court opinion, essay)
- b. evaluate how the author’s choice of structure contributes to the effectiveness of the exposition or argument
- c. compare and contrast presentations of the same topic in different media and describe the differences in focus, organization, and links to other sources

## **Integrating information and evaluating evidence**

### **Core Standards – Students can and do:**

7. Synthesize information presented graphically or visually in print, videos, or electronic texts and, when appropriate, note discrepancies of fact or interpretation (e.g., data in a table inconsistent with the author’s analysis).
8. Rigorously evaluate the logic and reasoning of the text, including assessing whether the evidence provided is relevant and sufficient.
9. Analyze how the point of view or purpose develops in the text and explain how it is revealed in the key details.

## **Standards – Students can and do (by key text type):**

### Narratives, Drama, and Poetry

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- a. compare points of view from which different stories are told and trace how they shift within a story and influence characterization and plot
- b. explain how dramatic irony created by the differences between what the audience or reader knows and what the characters know in a drama or narrative fiction creates suspense, anxiety, or humor

### Informational Text

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- a. synthesize ideas and data presented graphically and determine their purpose and relationship to the rest of the text (print or digital), noting any inconsistencies or discrepancies between the two
- b. evaluate the reasoning and rhetoric that support an argument or explanation, including assessing the sufficiency and relevance of the evidence as well as identifying any unsubstantiated statements or fallacious reasoning
- c. analyze documents of historical and literary significance for their premises, perspectives, and logical structure

## Developing habits for reading complex text

### **Core Standards – Students can and do:**

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

## Writing and Research Standards

## Writing to reflect audience, purpose, and task

### **Core Standards – Students can and do:**

1. Write informative and explanatory texts and arguments that match purpose to task and are tailored to audiences with specific requirements (e.g., admissions officer, human resources officer, skeptical audience).

## Conducting research

### **Core Standards – Students can and do:**

2. Demonstrate proficiency at performing short, focused research projects as well as more sustained inquiries that synthesize multiple authoritative sources on a subject.
3. Analyze evidence independently gathered from multiple authoritative and credible print and digital sources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered and determine their usefulness and relevance for the specific audience, purpose, and task.
5. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.
6. Cite print or electronic sources correctly and document quotations, paraphrases, graphics, and other information using a standard format.

## Revising writing

### **Core Standards – Students can and do:**

7. Strengthen writing through revision, editing, or beginning again to ensure to ensure logical organization, precision of word choice, and coherence.

## Using tools and technology

### **Core Standards – Students can and do:**

8. Demonstrate command of technology and other tools to produce, revise, and distribute writing, as well as to interact online with others about writing, including responding to and providing feedback.

## Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

Focus by grade level:

Grade 11: Analyzing the content of literary or informational sources at the 11-CCR grade band level of text complexity and content

Grade 12: Synthesizing or evaluating the contents of literary or informational sources at the 11-CCR grade band level of complexity and content

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## Standards – Students can and do (by key text type):<sup>32</sup>

### Narratives

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By high school, students are most often using narrative writing as a technique embedded within other genres. They use narrative writing to inform and persuade. They may, for example, provide a brief anecdote to support a point made in an argument or a scenario to illustrate an explanation. In such cases, narrative writing is a technique rather than a form in itself.

### Informative and Explanatory Texts

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- a. provide a clear and coherent introduction that establishes the subject and conveys a knowledgeable stance
- b. develop complex subjects through judicious use of relevant and specific facts, details, quotations, examples, or other information
- c. organize and present information so that each new piece of information builds upon what precedes it to create a unified whole
- d. demonstrate command of discipline-specific and technical vocabulary when appropriate and adjust style as appropriate to the situation
- e. demonstrate control of a range of strategies to present complex information or explanations and employ them effectively to manage the complexity of the topic and accomplish the writer's purpose
- f. link ideas with transitions and by varying sentence structures to express the precise relationships among ideas and create cohesion
- g. provide a conclusion that articulates the implications and significance of the information or explanation

### Arguments

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- a. establish the importance of the issue, make a substantive claim, and distinguish it from alternate or opposing claims
- b. support claims with logical reasons
- c. provide relevant, sufficient, and convincing evidence from credible sources in support of the reasons
- d. make logical connections between the evidence and the claim
- e. develop the argument in part based on an awareness of the audience's values, knowledge of the issue, and possible biases
- f. convey relationships between reasons, as well as between reasons and evidence, and signal alternative claims using words, phrases and clauses (e.g., *on the other hand*, *however*, *but*, *nevertheless*, *because*, *therefore*, *in addition*)
- g. maintain a formal style when appropriate to the discipline or context
- h. enhance the credibility of the argument by demonstrating control of strategies, including paraphrasing or quoting from authoritative sources and citing logical consequences
- i. provide a concluding statement or section that enhances the argument, using strategies such as articulating the implications, summing up the key factors, or weighing the evidence to support the claim

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<sup>32</sup> See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

# Speaking and Listening Standards

## Listening closely and participating productively

### Core Standards – Students can and do:

1. Participate productively in a range of structured interactions—both interpersonally and in groups—exchanging information constructively and with confidence, adapting to different levels of formality.
2. Sustain concentration on complex information presented orally, visually, or multi-modally and confirm understanding by challenging or defending key ideas and supporting evidence.

### Standards – Students can and do (by key communication type):

#### Classroom discussions and collaboration

- a. come to discussions having formulated considered judgments on the topics or issues under study and draw upon that preparation in discussions
- b. evaluate the content and rhetoric of a speaker, noting when evidence is exaggerated or distorted
- c. ask questions that probe the reasoning and evidence that support the claims and conclusions made orally or through other media, including offering counter examples or other points of view
- d. propel conversations forward by providing essential information and sharing findings that clarify, accommodate, or challenge ideas
- e. synthesize information presented visually or digitally with other information presented orally, noting the effect on meaning of any discrepancies between the two presentations
- f. assist in the formulation and productive functioning of both formal and informal self-directed work groups by identifying and assigning tasks and maintaining conversational norms as well as evaluating the progress of the team towards its goals

## Exchanging information and speaking effectively

### Core Standards – Students can and do:

3. Present information clearly and persuasively to others, selecting the most appropriate way to structure comments for clarity and effect.
4. Adapt delivery, tone, and mood for emphasis and effect, demonstrating command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

### Standards – Students can and do (by key communication type):

#### Presentation of ideas and information

- a. organize and present complex information about topics, situations, or texts, providing reliable and credible evidence from authoritative sources in support of findings and claims such that the line of reasoning is clear and alternative perspectives are addressed
- b. shape delivery and message to the occasion and the audience's values, knowledge of the issue, and possible biases
- c. engage an audience and improve comprehension through visual aids in presentations, including multimedia platforms

- d. portray and explain various ways to perform dramatic readings of various prose and poetry, citing text evidence for the alternative readings

## Language Development Standards

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### Conventions

In high school, students gain a broad range of sophisticated language skills to enhance meaning, achieve stylistic effect, and create subtle links between and among ideas. They maintain parallel structure. They acquire a more conceptual understanding of usage and the limits of “rules.” They use a full range of punctuation, including ellipses, semicolons, colons, and hyphens, and have a fuller understanding of how to employ commas and dashes. They make use of a wide range of phrases and clauses for effect. They maintain a consistent style and tone, using a style manual appropriate to the discipline in which they are working to help conventionalize their writing.

Key Terms: colon, ellipses, hyphen, semicolon, parallel structure, verbal

### Grammar and usage

#### Core Standards – Students can and do:

11. Use parallel structure in writing.
12. Consult references (e.g., *Merriam-Webster’s Dictionary of English Usage*) as needed to resolve particular usage issues, particularly when the usage is contested.

### Mechanics

#### Core Standards – Students can and do:

13. Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore a light[,] blue suit*).
14. Use a comma, ellipses, or dash to indicate a pause or break.
15. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.
16. Use a colon to introduce a list or a quotation.
17. Observe the conventions concerning using hyphens to join words.

### Word choice and style

#### Core Standards – Students can and do:

18. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to add variety and interest to writing.
19. Maintain consistency in style and tone.
20. Write and edit work so that it conforms to the guidelines in a style manual.

#### Focus by Grade-Level

Grade 11: Parallel structure and phrasing (Conventions Standards #1, #8)

Grade 12: Usage (Conventions Standard #2)

## Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In high school, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering multiple levels of context (sentence, paragraph, and text levels) and the word's history. They habitually verify their inferences of word meanings. They interpret a wide range of figurative language found in what they read and consider its contribution to the text. Possessing a highly developed sense of the shadings among words with similar denotations, they evaluate an author's or speaker's choice of words as well as alternatives to the words chosen. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).

### Determining the meaning of words

#### **Core Standards – Students can and do:**

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
  - using knowledge of roots, prefixes, and suffixes
  - using context, including syntactic and semantic clues, at the sentence, paragraph, and text levels
  - consulting reference materials, including general and specialized dictionaries and thesauruses, both print and digital
  - using the word's history (etymology)
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language and analyze its role within the text.

### Understanding the nuances of words (denotations and connotations)

#### **Core Standards – Students can and do:**

7. Assess and explain the merits of the choice of one word over another in reading, writing, speaking, and listening.
8. Gain a clearer sense of a word's meaning and use by comparing it to other words with similar but not identical meanings (synonyms).

### Acquiring vocabulary

#### **Core Standards – Students can and do:**

7. Acquire and use an extensive vocabulary of Tier 2 words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

## Grade 11 English Language Arts: Focus for Instruction

### Reading and Literature

*In grade 11, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 11-CCR grade band text independently, with scaffolding likely required for texts at the high end of the range.*

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% 11-CCR Band Text

100%

### Writing and Research

*In grade 11, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.*

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 11-CCR grade band level of complexity and content.

### Speaking and Listening

*In grade 11, students apply the core speaking and listening standards in different contexts.*

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

### Language Development

*In grade 11, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.*

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Parallel Structure and Phrasing
  - Use parallel structure in writing ... (Conventions Standard #1)
  - Use various types of phrases... (Conventions Standard #8)

## Grade 12 English Language Arts: Focus for Instruction

### Reading and Literature

*In grade 12, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 11-CCR grade band text independently as well as on sustained practice with Beyond CCR band “stretch” texts, which will likely require scaffolding.*

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% 11-CCR Band Text; 30% Beyond CCR text

70%

30%

### Writing and Research

*In grade 12, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.*

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter time frames, responding to specific sources by synthesizing or evaluating the contents of literary or informational sources of 11-CCR grade band level complexity and content.

### Speaking and Listening

*In grade 12, students apply the core speaking and listening standards in different contexts.*

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

### Language Development

*In grade 12, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.*

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Usage
  - Consult references ... (Conventions Standard #2)



## APPENDIX A

# Text Complexity Next Steps

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A key requirement of the Core Standards in Reading is that all students engage with texts of steadily increasing complexity as they advance through school. The Core Standards' model of *text complexity*—in the simplest terms, how easy or difficult a text is to read—blends qualitative and quantitative measures of inherent text difficulty with educators' knowledge of their students. All three elements should be considered together when evaluating a text's appropriateness for particular students.

*Qualitative dimensions* are aspects of text best measured by readers applying trained judgment to the evaluation task. These dimensions include the text's structure, format, and length; its purpose; its style and language; the quality, nature, and density of its ideas, concepts, and information; relationships among ideas, information, and characters in it; and the knowledge and experience demands it places upon readers.

*Quantitative dimensions* include not only those aspects of text traditionally measured by readability formulas—word length and sentence length—but also computer-assessable aspects of text cohesion. These include referential cohesion (the degree to which a text refers back to previous points) and word frequency.

The qualitative and quantitative measures of a text are balanced in the model by educators' *professional judgment* of the appropriateness of the text for particular students given their background knowledge, interests, and motivation. Harder texts may be appropriate for highly knowledgeable or motivated students, and easier texts may be suitable as a means for building struggling readers' skills up to required levels.

While the tools included in this draft and the forthcoming ones described below represent an important advance over those previously available, no measure or set of measures is perfectly accurate. The mandate is that the body of works that students study in a given year represent an appropriate level of complexity as defined by these standards.

### Current and next steps

A qualitative rubric, derived from prior studies and refined through feedback from trained teacher-raters, is included in this draft to define some ways in which text complexity should increase as students move through the grades. The rubric can be used (in conjunction with forthcoming quantitative measures) to place individual texts into grade bands by complexity. The qualitative dimensions are best understood, however, as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

The Core Standards work team is presently conducting a study with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity. Graphically, these three elements will appear together in a "label" defining complexity for a given text.

Following the completion of that study in early 2010, the work team will oversee the development of a Web site designed to make the text complexity tools more user-friendly and broadly available. The site will contain a database of complexity information for a range of widely used texts, including links to texts and test passages of similar complexity. Educators will be able to input additional texts for evaluation and comment on the suitability of particular texts for particular groups of students. The overarching goal is to make text complexity a vital and easy-to-incorporate element of reading instruction.

## Text Complexity Qualitative Scheme

Dimension of Text		Grade Span				
		2–3	4–5	6–8	9–10	11–12
Structure		Explicit, simple, conventional; simple graphic representations are supplementary to meaning; texts are relatively short	Largely explicit and direct; graphic representations are supplementary to meaning; texts are of increasing length	Largely implicit and subtle; graphic representations are essential to meaning; texts are of increasing length	Implicit, subtle; graphic representations are essential to meaning; texts are of increasing length	Implicit, complex, unconventional; sophisticated graphic representations are essential to meaning; texts are sufficiently long to address complex subjects
Purpose		Single; explicitly stated	Single or twofold; clearly indicated	Single or multiple; subtly stated	Multiple; often implicit	Multiple; often implicit and may be hidden or obscure
Style and Language	Style	Familiar, accessible, plain; few literary devices	Moderately accessible; some literary devices	Moderately demanding; several literary devices	Demanding; many literary devices	Unfamiliar, demanding, complex; many literary devices
	Language	Mostly clear, everyday language; limited use of Tier 2 and 3 words and figurative language	Some everyday language; some use of Tier 2 and 3 words and figurative language	Consistent use of Tier 2 and 3 words and figurative language	Extensive use of Tier 2 and 3 words and figurative language	Extensive use of Tier 2 and 3 words and figurative language; language may be intentionally or unintentionally ambiguous
Richness		A few ideas/concepts; concrete; low information density	Some ideas/concepts; mostly concrete; moderate information density	Several ideas/concepts; mostly abstract; moderate information density	Several ideas/concepts; abstract; high information density	Many ideas/concepts; highly abstract; high information density
Relationships		A few connections; explicit; simple	Some connections; largely explicit	Several connections; largely implicit	Several connections; implicit	Many connections; implicit; complex and interwoven
Knowledge Demands	Life experiences (literary texts)	Ability to handle simple themes and fantastical elements as well as draw upon common, everyday experiences	Ability to handle fairly simple themes, consider a perspective somewhat different from one's own, and understand unfamiliar experiences	Ability to handle fairly challenging themes, consider multiple perspectives, and understand unfamiliar experiences	Ability to handle challenging themes, consider multiple perspectives, and understand experiences distinctly different from one's own	Ability to handle one or more complex themes, consider multiple and unusual perspectives, and understand experiences distinctly different from one's own
	Cultural/literary knowledge (chiefly literary texts)	General background knowledge and familiarity with genre conventions required		Cultural and historical knowledge useful for understanding characters, settings, and allusions		
	Content/discipline knowledge (chiefly informational texts)	Some everyday and general content knowledge	Some general and discipline-specific content knowledge	Some discipline-specific content knowledge	Extensive discipline-specific content knowledge	Extensive, perhaps specialized discipline-specific content knowledge

Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissett, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of “best fit,” or determining which grade band’s set of descriptors most accurately describes the text.

#### Structure

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- Explicit, simple, conventional → Implicit, complex, unconventional
- Simple graphic representations → Sophisticated graphic representations
- Graphic representations supplementary to meaning → Graphic representations essential to meaning
- Relatively short texts → Texts sufficiently long to address complex subjects

#### Purpose

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- Single purpose → Multiple purposes
- Explicitly stated → Often implicit and may be hidden or obscure

#### Style

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- Familiar, accessible, plain → Unfamiliar, demanding, complex
- Few literary devices → Many literary devices

#### Language

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- Mostly everyday language → Extensive use of Tier 2 and 3 words
- Limited use of figurative language → Extensive use of figurative language
- Clear language → Potentially ambiguous language

#### Richness

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- A few ideas/concepts → Many ideas/concepts
- Concrete ideas/concepts → Abstract ideas/concepts
- Low information density → High information density

#### Relationships

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- A few connections → Many connections
- Explicit connections → Implicit connections
- Simple connections → Complex, interwoven connections

#### Knowledge Demands: Life Experiences

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- Simple themes → Complex themes
- Single theme → Multiple themes
- Common, everyday experiences and fantastical elements → Experiences distinctly different from one’s own
- Single perspective like one’s own → Multiple and unusual perspectives

#### Knowledge Demands: Cultural Knowledge

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- General background knowledge and familiarity with genre conventions required → Cultural and historical knowledge useful

#### Knowledge Demands: Content/Discipline Knowledge

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- Some everyday and general content knowledge → Extensive, perhaps specialized discipline-specific content knowledge

# Definitions of Key Writing Types

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## Narrative

Narrative writing is organized by time. Time is central because narrative writing depicts events, whether real or imagined. Narrative writing is fundamental to novels, short stories, biographies, autobiographies, historical accounts, and plays. With practice, students' repertoire of narrative strategies expands and their control of them increases. Students learn to provide visual details of scenes, objects, or people; to depict specific actions (movements, gestures, postures, and expressions); to use dialogue and interior monologue in order to provide insight into the narrator's and characters' personalities and motives; and to manipulate pace in order to highlight the significance of certain events and create tension and suspense. Narrative writing serves a variety of purposes; frequently it is embedded in other kinds of writing, such as writing intended to inform, instruct, or persuade.

## Informative/Explanatory Text

Informative/explanatory writing conveys information accurately. This kind of writing can serve one or more of several closely related purposes: to increase readers' knowledge of a subject, to help readers better understand a procedure or process, or to enhance readers' comprehension of a concept. Informative/explanatory writing addresses questions, such as questions about types (What are the different types of whales?), about components (What are the parts of a motor?), about aspects of a subject such as its size, function, or behavior (How big is the United States? What is an x-ray used for? How do penguins find food?), about how things work (How does a camera work?), and about why things happen (Why is Earth warming?). To produce this kind of writing, students draw on what they already know and on primary and secondary sources. With practice, students become better able to develop a controlling idea that supports coherence and focus, and they can select examples, facts, and details that are relevant. They are also able to employ a variety of techniques that writers use to convey information, such as naming, describing, or differentiating different types or parts; comparing or contrasting one subject with another; and relating an anecdote or scenario to illustrate a point.

## Argument

The purpose of argument is to persuade in order to change the reader's point of view or to bring about some action on the reader's part. There are many techniques employed by writers to persuade readers—for example, appeals to emotions, appeals to common beliefs, and the creation of a believable authorial voice. However, the core of argument is logic and evidence. A logical argument convinces its audience of the merit and reasonableness of the claims and the proof offered in support of the claims. Writers of logical arguments provide credible evidence (facts and details) to support their assertions. Although young children are not able to produce fully developed logical arguments, they are developing a variety of ways to extend and elaborate their work around opinions or judgments. They provide examples, they offer reasons for their assertions, and they explain cause and effect. These kinds of expository structures are steps on the road to argument.

# Conventions

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Three goals undergird the Conventions standards:

- (1) Students should have a carefully specified range of broadly useful terms in order to be precise in their discussions about language. Such key terms (noted below) should be defined in grade-appropriate ways for younger students and fleshed out more fully in later grades. (For guidance on this matter, see, for example, Brock Haussamen with Amy Benjamin, Martha Kolln, and Rebecca S. Wheeler, *Grammar Alive!: A Guide for Teachers* [Urbana, IL: NCTE, 2003] and Amy Benjamin with Tom Oliva, *Engaging Grammar: Practical Advice for Real Classrooms* [Urbana, IL: NCTE, 2007].) Additional terminology may be helpful in particular instructional situations; avoiding terminology altogether may be appropriate in others.
- (2) Students must be able to observe the conventions of standard English in their formal writing and speaking for the sake of having their efforts widely understood and taken seriously.
- (3) Students need to understand that effective language use is more than simply observing a series of rules but also about making careful choices among alternatives, considering those choices in relation to task, purpose, audience, occasion, and discipline.

Many conventions-related issues are likely to arise in students' writing and speaking prior to their formal appearance in the sequence below. For example, students in kindergarten are expected to know what a complete sentence is even though the concept of a fragment is not mentioned specifically in the standards until grade 3.

Conversely, many skills and understandings introduced at lower grades will require continued attention as students advance in the grades. Students in grade 3, for instance, can ensure subject-verb agreement in simple situations, such as when the subject and verb appear next to each other in a sentence. As students' writing and speaking become more complex, however, new agreement challenges arise, such as intervening phrases suggesting a different number for the verb than the subject calls for. "Errors" with applying previously mastered skills and understandings are thus often a sign of progress in that students are stretching their ability to communicate. "Relearning" is then a matter of students becoming able to apply old skills and understandings in new, more sophisticated ways.

While all the Conventions standards should be considered cumulative, certain ones, noted with an asterisk (\*), are particularly likely to need to be revisited by older students as they convey ever more elaborate ideas in writing and speech.

## ELA Conventions Progressive Skills: By Standard

The following standards, marked with an asterisk (\*) in the standards document, are skills and understandings that require continued attention in higher grades (after their introduction in lower grades) as they are applied to increasingly sophisticated writing and speaking.

<b>Grade 3</b>	<b>Grades 4–5</b>	<b>Grades 6–8</b>	(Grade/band in which the standard is introduced)
----------------	-------------------	-------------------	--

- |     |   |  |  |
|-----|---|--|--|
| 3.1 | Generate complete sentences, avoiding sentence fragments, comma splices, and run-ons. |  |  |
| 3.2 | Ensure subject-verb and pronoun-antecedent agreement.                                 |  |  |
| 3.7 | Choose words for effect.  |  |  |

- |        |   |  |  |
|--------|---|--|--|
| 4–5.2  | Recognize and correct inappropriate shifts in verb tense.   |  |  |
| 4–5.3  | Form and choose between adjectives and adverbs (including comparative and superlative forms), placing them appropriately within the sentence. |  |  |
| 4–5.4  | Correctly use frequently confused words.  |  |  |
| 4–5.5  | Use idiomatic language.   |  |  |
| 4–5.7  | Use punctuation to separate items in a series.  |  |  |
| 4–5.11 | Spell grade-appropriate words correctly, consulting references as needed.   |  |  |
| 4–5.12 | Use specialized, topic-specific language to convey ideas precisely.   |  |  |
| 4–5.13 | Use figurative language to create images or make comparisons and connections between people, objects, or ideas.                               |  |  |
| 4–5.14 | Use punctuation for effect.   |  |  |
| 4–5.15 | Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.   |  |  |

- |        |   |  |  |
|--------|---|--|--|
| 6-8.2  | Place phrases and clauses within a sentence, avoiding misplaced and dangling modifiers.               |  |  |
| 6-8.4  | Recognize and correct inappropriate shifts in pronoun number and person.                              |  |  |
| 6.8.5  | Recognize and correct vague pronouns with unclear or ambiguous antecedents.                           |  |  |
| 6-8.8  | Recognize and correct inappropriate shifts in verb voice and mood.                                    |  |  |
| 6-8.9  | Set off nonrestrictive/parenthetical elements with commas, parentheses, or dashes.                    |  |  |
| 6-8.12 | Vary sentence patterns for meaning, reader/listener interest, and style.                              |  |  |
| 6-8.13 | Choose words and phrases to express ideas precisely and concisely, avoiding redundancy and wordiness. |  |  |

# Vocabulary Instruction

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Words are not just words. They are the nexus — the interface — between communication and thought. When we read, it is through words that we build, refine, and modify our knowledge. What makes vocabulary valuable and important is not the words themselves so much as the understandings they afford.

Marilyn Adams<sup>33</sup>

The importance of students acquiring a rich and varied vocabulary cannot be overstated. Research suggests that if students are going to grasp and retain words and comprehend text, they need incremental, repeated exposure to words they are trying to learn in a variety of contexts. When students make multiple connections between new words and their own experiences they develop a nuanced and flexible understanding of the word. In this way, students learn not only what a word means, but how to use that word in a variety of contexts and apply appropriate senses of the word's meaning in order to understand different contexts.<sup>34</sup>

Initially children readily learn words from oral conversation because oral conversations are context rich in ways that aid in vocabulary acquisition: in discussion a small set of words (accompanied by gesture and intonation) is used with great frequency to talk about a narrow range of situations children are exposed to on a day to day basis. Yet as children reach school age, new words are less frequently introduced in conversation, and consequently vocabulary acquisition eventually stagnates by fourth or fifth grade unless students acquire additional words from written context.<sup>35</sup>

Written language, by contrast, contains hundreds of times as many different words as are typically used in conversational language. Yet writing lacks the interactive opportunities and nonverbal context provided by oral conversation so it presents a special challenge towards successful vocabulary acquisition without purposeful and ongoing concentration on vocabulary.<sup>36</sup> In fact, at most, between five and fifteen percent of new words encountered when reading are retained.<sup>37</sup> The weaker a student's vocabulary is, the slighter the gain.<sup>38</sup> Yet research shows that if students are going to understand what they read, they must understand upward of 95 percent of the words.<sup>39</sup>

As this "tipping point" for lexical dexterity is quite challenging for students to reach, every classroom needs to focus on providing students with high quality contextual encounters with vocabulary words that epitomize what they encounter in written texts. The aim should be to expose students to words that have the widest application— concepts that students are likely to meet again and again not just in classroom settings but outside the school walls as well. Some of these highly transferable academic words, often referred to as Tier 2 words, such as qualifying adjectives and adverbs (e.g., important, typically) are used broadly across domains and indeed in contexts that

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<sup>33</sup> Adams, M. (2009). "The Challenge of Advanced Texts: The Interdependence of Reading and Learning," in Hiebert (Ed.), *Reading more, reading better: Are American students reading enough of the right stuff?*, New York: Guilford Publications.

<sup>34</sup> Landauer, TK, McNamara, DS, Dennis, S and Kintsch, W (2007) *Handbook of Latent Semantic Analysis*; Landauer, T. K., & Dumais, S. T. (1997). A solution to Plato's problem: The latent semantic analysis theory of acquisition, induction, and representation of knowledge. *Psychological Review*, 104(2), 211-240; Nagy, W. E., Herman, P., & Anderson, R. C. (1985). Learning words from context. *Reading Research Quarterly*, 20, 233-253.

<sup>35</sup> Hayes, D and Ahrens, M: "Vocabulary simplification for children: A special case of "motherese?" *Journal of Child Language*. Vol 15(2), Jun 1988, 395-410

<sup>36</sup> Ibid.

<sup>37</sup> Ibid.

<sup>38</sup> Daneman & Green, 1986; Herman, Anderson, Person & Nagy, 1987; Sternberg & Powell

<sup>39</sup> Betts, E. A. (1946). *Foundations of reading instruction*. New York, NY: American Book Company; Carver, R. P. (1994). Percentage of unknown vocabulary words in text as a function of the relative difficulty of the text: Implications for instruction. *Journal of Reading Behavior*, 26, 413-437; Hu, M., & Nation, P. (2000). Unknown vocabulary density and reading comprehension. *Reading in a Foreign Language*, 13(1), 403-430; Laufer, B. (1988). What percentage of text-lexis is essential for comprehension. In C. Lauren & M. Nordmann (Eds.), *Special language: From humans to thinking machines*, pp. 316-323. Clevedon, UK: Multilingual Matters.

transcend the classroom.<sup>40</sup> However, the meanings of most words are specific to their domains—often referred to as Tier 3 words—including those that arise in multiple domains (e.g., chemical constituents, constituent voting patterns). To learn words, students have to read multiple selections from multiple authors within key domains of learning.

The problem is that, in any given instance, it is not the entire spectrum of a word's history, meanings, usages, and features that matters, but only those aspects that are relevant to the surrounding context. That means, first, that the reader's internal representation of the word must be sufficiently complete and well-articulated so that the intended meaning is available and, second, that the reader must understand the context well enough to select the intended meaning – which, in turn, depends on good understanding of the surrounding words of the passage.

Key to students' vocabulary development is building rich and flexible word knowledge. Students need plentiful opportunities to use and respond to the words they learn, through playful informal talk, discussion, and reading or being read to and responding to what is read. Along with attention to academic (Tier 2 words) and content-specific words (Tier 3 words), students benefit from instruction about the connections and patterns in language. Developing in students an analytical attitude toward the logic and sentence structure of their texts alongside an awareness of word parts, word origins, and word relationships provides students with a sense of how language works so that syntax, morphology and etymology can become useful cues to word in building meaning as students encounter new words and concepts in their reading.<sup>41</sup> As students are exposed to and interact with language throughout their school careers, they are able to acquire understandings of word meanings, build awareness of the workings of language, and apply word meanings to comprehend and produce language.

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<sup>40</sup> Indeed, the fact that these words transcend specific disciplines argues for them being taught and used across the curriculum by all teachers.

<sup>41</sup> Beck, I. L., McKeown, M. & Kucan, L. (2008). *Creating robust vocabulary: Frequently asked questions and extended examples*.

## APPENDIX B

# Exemplars of Reading Text Complexity and Quality, ELA K–12

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### Selecting Text Samples

The following text samples primarily serve to exemplify the level of complexity and quality that the *Standards* require all students in a given grade band to engage with while additionally suggesting the breadth of text types that students should encounter. The choices should serve as useful guideposts in helping educators select texts of similar **complexity**, **quality**, and **breadth** for their own classrooms. The process of text selection was guided by these criteria in the following fashion:

- *Complexity*. Appendix A describes in detail a three-part model of measuring text complexity based on qualitative and quantitative indices of inherent text difficulty balanced with educators' professional judgment. In selecting texts to serve as exemplars, the work group began by soliciting contributions from teachers, educational leaders, and researchers who have experience working with students in the grades for which the texts have been selected. These contributors were asked to propose texts that they or their colleagues have used successfully with students in a given grade band. The work group made final selections based in part on whether qualitative and quantitative measures identified by the *Standards* indicated that the proposed texts were of sufficient complexity for the grade band. For those types of texts—particularly poetry and multimedia sources—for which these measures are not as well suited, professional judgment necessarily played a greater role in selection.
- *Quality*. While it is possible to have high-complexity texts of low inherent quality, the work group solicited only texts of recognized value. From the pool of submissions gathered from outside contributors, the work group selected classic or historically significant texts as well as contemporary works of comparable literary merit, cultural significance, and/or content richness.
- *Breadth*. After identifying texts of appropriate complexity and quality, the work group applied a range of secondary criteria to ensure that the samples presented in each band represented as broad a range of sufficiently complex, high-quality texts as possible. Among the factors considered were initial publication date, authorship, and subject matter.

### Copyright and Permissions

For those exemplar texts not in the public domain, the work group is seeking permission from the rights holders for limited use by the Common Core State Standards Initiative of the National Governors Association.

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### Organization and Excerpting

Texts are organized first by category, with narrative texts followed by drama and poetry and then the informational texts. Within each category, the texts are organized by date, usually of first publication, beginning with the oldest and ending with the most recent. In some cases, the date of any given work may be open to debate.

The excerpts given here are meant to stand in for the full work in most instances. Works that are not in the public domain may be represented by short excerpts or snippets while the work group awaits permission from the rights holders for full use.

### **Media Texts**

Selected excerpts are accompanied by annotated links to related media texts available online at the time of the publication of this document.

## **Kindergarten to Grade 1 Exemplar Texts**

### **Narratives**

*Little Bear* by Else Holmelund Minarik, illustrated by Maurice Sendak (1957)

*Are You My Mother?* by P. D. Eastman (1960)

*The Fire Cat* by Esther Averill (1960)

*Green Eggs and Ham* by Dr. Seuss (1960)

*Put Me in the Zoo* by Robert Lopshire (1960)

*Frog and Toad Together* by Arnold Lobel (1971)

*Owl at Home* by Arnold Lobel (1975)

*Henry and Mudge: The First Book of Their Adventures* by Cynthia Rylant, illustrated by Suçie Stevenson (1987)

*Poppleton in Winter* by Cynthia Rylant, illustrated by Mark Teague (2001)

*Cowgirl Kate and Cocoa* by Erica Silverman, illustrated by Betsy Lewin (2005)

### **Poetry**

“Mix a Pancake” by Christina G. Rossetti (1893)

“Singing-Time” by Rose Fyleman (1919)

“Halfway Down” by A. A. Milne (1924)

“As I Was Going to St. Ives” by Unknown, collected by Peter and Iona Opie (1951)

“Drinking Fountain” by Marchette Chute (1957)

“Poem” by Langston Hughes (1958)

“Wouldn't You?” by John Ciardi (1961)

“In the Falling Snow” by Richard Wright (1973)

“Covers” by Nikki Giovanni (1980)

“It Fell in the City” by Eve Merriam (1985)

“Celebration” by Alonzo Lopez (1993)

“Two Tree Toads” by Jon Agee (2009)

### **Informational Texts**

*A Tree Is a Plant* by Clyde Robert Bulla, illustrated by Stacey Schuett (1960)

*My Five Senses* by Alike (1962)

*Starfish* by Edith Thacher Hurd, illustrated by Robin Brickman (1962)

*What Do You Do With a Tail Like This?* by Steve Jenkins & Robin Page (2003)

*From Seed to Pumpkin* by Wendy Pfeffer, illustrated by James Graham Hale (2004)

*Mouse in a Meadow* by John Himmelman (2005)

*Petting Zoo* by Dorling Kindersley (2005)

*Meet the Meerkat* by Darrin Lunde, illustrated by Patricia J. Wynne (2007)

“The Forest in Spring” in *National Geographic Young Explorer!* April 2009 (2009)

“Our Good Earth” in *National Geographic Young Explorer*, April 2009 (2009)

### **Read-Aloud Narratives**

*The Wonderful Wizard of Oz* by L. Frank Baum (1900)

*Little House in the Big Woods* by Laura Ingalls Wilder, illustrated by Garth Williams (1932)

*Mr. Popper’s Penguins* by Richard Atwater (1938)

*Finn Family Moomintroll* by Tove Jansson, translated by Elizabeth Portch (1948)

*A Story A Story* by Gail E. Haley (1970)

*The Paper Crane* by Molly Bang (1985)

### **Read-Aloud Poetry**

“The Owl and the Pussycat” by Edward Lear (1871)

“April Rain Song” by Langston Hughes (1932)

“The Fox’s Foray” – Traditional rhyme in Opie / *The Oxford Nursery Rhyme Book* (1955)

*Over in the Meadow* by John Langstaff, illustrated by Feodor Rojankovsky (1957)

*Zin! Zin! Zin! a Violin* by Lloyd Moss, illustrated by Marjorie Priceman (1995)

### **Read-Aloud Informational Texts**

*The Year at Maple Hill Farm* by Alice and Martin Provensen (1978)

*Fire! Fire!* by Gail Gibbons (1984)

*Follow the Water from Brook to Ocean* by Arthur Dorros (1991)

*Amazing Whales!* by Sarah L. Thomson (2005)

*Living Sunlight: How Plants Bring the Earth to Life* by Molly Bang & Penny Chisholm, illustrated by Molly Bang (2009)

### **Grades 2–3 Exemplar Texts**

#### **Narratives**

*My Father's Dragon* by Ruth Stiles Gannett, illustrated by Ruth Chrisman Gannett (1948)

*Crow Boy* by Taro Yashima (1955)

*Amos & Boris* by William Steig (1971)

*The Treasure* by Uri Shulevitz (1978)

*The Stories Julian Tells* by Ann Cameron (1981)

*Sarah, Plain and Tall* by Patricia MacLachlan (1985)

*Tops and Bottoms* by Janet Stevens (1995)

*The Raft* by Jim LaMarche (2000)

*The Lighthouse Family: The Storm* by Cynthia Rylant, illustrated by Preston McDaniels (2002)

*The One-Eyed Giant (Book One of Tales from the Odyssey)* by Mary Pope Osborne (2002)

#### **Poetry**

"Autumn" by Emily Dickinson (1893)

"Who Has Seen the Wind" by Christina G. Rossetti (1893)

"Afternoon on a Hill" by Edna St. Vincent Millay (1917)

"Stopping by Woods on a Snowy Evening" by Robert Frost (1923)

"Something Told the Wild Geese" by Rachel Field (1934)

"Grandpa's Stories" by Langston Hughes (1958)

“A Bat Is Born” by Randall Jarrell (1964)

“Knoxville, Tennessee” by Nikki Giovanni (1968)

“Weather” by Eve Merriam (1969)

“Eating While Reading” by Gary Soto (1995)

### **Informational Texts**

*A Medieval Feast* by Alike (1983)

*Maps & Globes* by Jack Knowlton, pictures by Harriet Barton (1985)

*Sunshine Makes the Seasons* by Franklyn M. Branley (1985)

*From Seed to Plant* by Gail Gibbons (1991)

*Throw Your Teeth on the Roof: Tooth Traditions Around the World* by Selby B. Beeler, illustrated by  
G. Brian Karas (1998)

*So You Want to Be President?* By Judith St. George, illustrated by David Small (2000)

*Boy, Were We Wrong About Dinosaurs* by Kathleen V. Kudlinski, illustrated by S.D. Schindler (2005)

*Bat Loves the Night* by Nicola Davies, illustrated by Sarah Fox-Davies (2008)

*Moonshot: The Flight of Apollo 11* by Brian Floca (2009)

*Where Do Polar Bears Live?* by Sarah L. Thomson, illustrated by Jason Chin (2010)

### **Read-Aloud Narratives**

“How the Camel Got His Hump” in *Just So Stories* by Rudyard Kipling (1902)

*The Thirteen Clocks* by James Thurber (1950)

*The Cricket in Times Square* by George Selden, illustrated by Garth Williams (1960)

*The Search for Delicious* by Natalie Babbitt (1969)

*Bud, Not Buddy* by Christopher Paul Curtis (1999)

### **Read-Aloud Poetry**

“The Jumblies” by Edward Lear (1871)

“The Pied Piper of Hamelin” by Robert Browning (1888)

“Your World” by Georgia Douglas Johnson (1918)

“The Song of the Jellicles” by T.S. Eliot (1939)

“Fireflies” by Paul Fleischman, illustrated by Eric Beddows (1988)

### **Read-Aloud Informational Texts**

*Lincoln: A Photobiography* by Russell Freedman (1987)

*A Drop of Water: A Book of Science and Wonder* by Walter Wick (1997)

*The Museum Book: A Guide to Strange and Wonderful Collections* by Jan Mark, illustrated by  
Richard Holland (2007)

*What the World Eats* by Faith D’Aluisio, photographed by Peter Menzel (2008)

*Wild Tracks! A Guide to Nature’s Footprints* by Jim Arnosky (2008)

### **Grades 4–5 Exemplar Texts**

#### **Narratives**

*Alice in Wonderland* by Lewis Carroll (1865)

*The Secret Garden* by Frances Hodgson Burnett (1911)

*The Black Stallion* by Walter Farley (1941)

*The Little Prince* by Antoine de Saint-Exupery (1943)

*Tuck Everlasting* by Natalie Babbitt (1975)

“Zlateh the Goat” by Isaac Bashevis Singer (1984)

*M. C. Higgins, the Great* by Virginia Hamilton (1993)

*The Birchbark House* by Louise Erdrich (1999)

*Bud, Not Buddy* by Christopher Paul Curtis (1999)

[Also a read-aloud narrative at Grades 2–3]

*Where the Mountain Meets the Moon* by Grace Lin (2009)

#### **Poetry**

“The Echoing Green” from *Songs of Innocence* by William Blake (1789)

“The New Colossus” by Emma Lazarus (1883)

“Casey at the Bat” by Ernest Lawrence Thayer (1888)

“A Bird Came Down the Walk” by Emily Dickinson (1893)

“Fog” by Carl Sandburg (1916)

“Dust of Snow” by Robert Frost (1923)

“Little Red Riding Hood and the Wolf” by Roald Dahl (1982)

“They Were My People” by Grace Nichols (1988)

“Words Free As Confetti” by Pat Mora (1996)

## **Informational Texts**

*Discovering Mars* by Melvin Berger (1992)

*Let’s Investigate Marvelously Meaningful Maps* by Madelyn Wood Carlisle (1992)

*Hurricanes: Earth’s Mightiest Storms* by Patricia Lauber (1996)

*The Kid’s Guide to Money* by Steve Otfinoski (1996)

*Toys: Amazing Stories behind Some Great Inventions* by Don Wulffson (2000)

“Good Pet, Bad Pet” by Elizabeth Schleichert from *Ranger Rick* (2002)

“Ancient Mound Builders” by E. Barrie Kavash from *Cobblestone* (2003)

*About Time: A First Look at Time and Clocks* by Bruce Koscielniak (2004)

*England the Land* by Erinn Banting (2004)

*A History of US* by Joy Hakim (2005)

*My Librarian Is a Camel* by Margriet Ruurs (2005)

*Horses* by Seymour Simon (2006)

*Quest for the Tree Kangaroo* by Sy Montgomery (2006)

*Volcanoes* by Seymour Simon (2006)

*We Are the Ship: The Story of Negro League Baseball* by Kadir Nelson (2008)

“Kenya’s Long Dry Season” by Nellie Gonzalez Cutler from *Time for Kids* (2009)

“Seeing Eye to Eye” by Leslie Hall from *National Geographic Explorer* (2009)

“Computer” from *Britannica Junior Encyclopedia* (2010)

“Telescopes” by Ronan, Colin A. from *The New Book of Knowledge* (2010)

“Underground Railroad” by Henrietta Buckmaster from *The New Book of Knowledge* (2010)

## **Grades 6–8 Exemplar Texts**

### **Narratives**

*Little Women* by Louisa May Alcott (1869)

*The Adventures of Tom Sawyer* by Mark Twain (1876)

*A Wrinkle in Time* by Madeline L'Engle (1962)

*The Dark is Rising* by Susan Cooper (1973)

*Dragonwings* by Laurence Yep (1975)

*Roll of Thunder, Hear My Cry* by Mildred Taylor (1976)

"The People Could Fly" from *The People Could Fly: American Black Folktales* by Virginia Hamilton (1985)

*The Tale of the Mandarin Ducks* by Katherine Paterson (1990)

"Eleven" from *Woman Hollering Creek: And Other Stories* by Sandra Cisneros (1992)

*Black Ships Before Troy: The Story of the Iliad* by Rosemary Sutcliff (1993)

### **Drama**

*A Midsummer Night's Dream* by William Shakespeare (1596)

*The Diary of Anne Frank* by Frances Goodrich and Albert Hackett (1958)

### **Poetry**

"Paul Revere's Ride" by Henry Wadsworth Longfellow (1861)

"O Captain, My Captain" by Walt Whitman (1865)

"Jabberwocky" by Lewis Carroll (1872)

"Twelfth Song of Thunder" from *The Mountain Chant: A Navajo Ceremony* Navajo tradition (1887)

"The Railway Train" by Emily Dickinson (1893)

"The Song of Wandering Aengus" by W. B. Yeats (1899)

"Chicago" from *Chicago Poems* (1914) by Carl Sandburg

"Stopping by a Wood on a Snowy Evening" by Robert Frost (1923)

"I, Too" by Langston Hughes (1925)

"The Book of Questions" by Pablo Neruda (1973) translated by William O'Daly

"Oranges" from *Black Hair* (1985) by Gary Soto

"A Poem for My Librarian, Mrs. Long" from *Acolytes* (2007) by Nikki Giovanni

### **Informational Texts (English Language Arts)**

"Allegory of the Cave" from *The Republic* by Plato (380 BCE) translated by G.M.A. Grube

“Letter on Thomas Jefferson” by John Adams (1822)

*Narrative of the Life of Frederick Douglass an American Slave* by Frederick Douglass (1845)

“Gettysburg Address” by Abraham Lincoln (1863)

“Lee Surrenders to Grant” by Horace Porter (1865)

“Blood, Toil, Tears and Sweat” by Winston Churchill (1940)

*Travels with Charley: In Search of America* by John Steinbeck (1962)

“Address to the Nation on Civil Rights” by John F. Kennedy (1963)

*I Know Why the Caged Bird Sings* by Maya Angelou (1969)

“Address to Students at Moscow State University” by Ronald Reagan (1988)

## **Grades 9-10 Exemplar Texts**

### **Narratives**

*The Odyssey* by Homer (8<sup>th</sup> century B.C.E.) translated by Robert Fagles

“The Nose” by Nikolai Gogol (1836) translated by Ronald Wilks

“The Gift of the Magi” by O. Henry (1906)

*The Grapes of Wrath* by John Steinbeck (1939)

*Fahrenheit 451* by Ray Bradbury (1953)

“I Stand Here Ironing” by Tillie Olsen (1956)

*The Killer Angels* by Michael Shaara (1975)

*The Joy Luck Club* by Amy Tan (1989)

*In the Time of the Butterflies* by Julia Alvarez (1994)

*The Book Thief* by Marcus Zusak (2005)

### **Drama**

*The Tragedy of Romeo and Juliet* by William Shakespeare (1592)

*The Glass Menagerie* by Tennessee Williams (1944)

*Rhinoceros* by Eugene Ionesco (1959) translated by Derek Prouse

*Master Harold... and the Boys* by Athol Fugard (1982)

### **Poetry**

“Song” by John Donne (1635)

“Ozymandias” by Percy Bysshe Shelley (1810)

“The Raven” by Edgar Allan Poe (1845)

“We Grow Accustomed to the Dark” by Emily Dickinson (1893)

“Loveliest of Trees” by A. E. Houseman (1896)

“Lift Ev’ry Voice and Sing” by James Weldon Johnson (1900)

“Domination of Black” by Wallace Stevens (1916)

“Yet Do I Marvel” by Countee Cullen (1925)

“Women” by Alice Walker (1970)

“I Am Offering This Poem to You” by Jimmy Santiago Baca (1977)

### **Informational Texts (English Language Arts)**

“Preface to Lyrical Ballads” by William Wordsworth (1800)

“Speech to the Second Virginia Convention” by Patrick Henry (1775)

“Second Inaugural Address” by Abraham Lincoln (1865)

“State of the Union Address” by Franklin Delano Roosevelt (1941)

“I Am an American Day Address” by Learned Hand (1944)

“Remarks to the Senate in Support of a Declaration of Conscience” by Margaret Chase Smith (1950)

“Address at the March on Washington” by Martin Luther King, Jr. (1963)

“Nobel Prize Acceptance Speech” by Elie Wiesel (1986)

“A Quilt of a Country” by Anna Quindlen (2001)

### **Grades 11-12 Exemplar Texts**

#### **Narratives**

*Pride and Prejudice* by Jane Austen (1813)

*Jane Eyre* by Charlotte Brontë (1848)

“At Home” by Anton Chekov (1887) translated by Constance Garnett

*The Great Gatsby* by F. Scott Fitzgerald (1925)

*As I Lay Dying* by William Faulkner (1930)

*Their Eyes Were Watching God* by Zora Neale Hurston (1937)

*Black Boy* by Richard Wright (1945)

*The Adventures of Augie March* by Saul Bellow (1949)

*The Bluest Eye* by Toni Morrison (1970)

*Dreaming in Cuban* by Cristina García (1992)

*The Namesake* by Jhumpa Lahiri (2003)

## **Drama**

*Macbeth* by William Shakespeare (c1611)

*The Importance of Being Earnest* by Oscar Wilde (1895)

*Death of a Salesman* by Arthur Miller (1949)

*A Raisin in the Sun* by Lorraine Hansberry (1959)

## **Poetry**

“A Valediction Forbidding Mourning” by John Donne (1633)

“Ode on a Grecian Urn” by John Keats (1820)

“Song of Myself” from *Leaves of Grass* by Walt Whitman (c1860)

“Because I Could Not Stop for Death” by Emily Dickinson (1890)

“Mending Wall” by Robert Frost (1914)

“Ode to My Suit” by Pablo Neruda (1954) translated by Margaret Sayers Peden

“Sestina” by Elizabeth Bishop (1983)

“The Latin Deli: An Ars Poetica” by Judith Ortiz Cofer (1988)

“Demeter’s Prayer to Hades” by Rita Dove (1995)

“Man Listening to Disc” by Billy Collins (2001)

## **Informational Texts (English Language Arts)**

*The Declaration of Independence* by Thomas Jefferson (1776)

*The Crisis* by Thomas Paine (1776)

*Walden* by Henry David Thoreau (1854)

“Society and Solitude” by Ralph Waldo Emerson (1857)

“The Fallacy of Success” by G.K. Chesterton (1909)

*The American Language* by H.L. Mencken (1938)

“Politics and the English Language” by George Orwell (1946)

“Abraham Lincoln and the Self-Made Myth” by Richard Hofstadter (1948)

“Letter from Birmingham City Jail” by Martin Luther King, Jr. (1963)

“Mother Tongue” by Amy Tan (1990)

“Take the Tortillas Out of Your Poetry” by Rudolfo Anaya (1995)

## Introduction

The *College and Career Readiness Standards for Mathematics* consist of three interconnected parts: a Standard for Mathematical Practice, ten Standards for Mathematical Content, and a set of Example Tasks.

The Standard for Mathematical Practice has six Core Practices that describe the way proficient students approach mathematics. Proficient students attend to precision, construct viable arguments, make sense of complex problems and persevere in solving them, look for hidden structure, note regularity in repeated reasoning, and use technology intelligently. This approach to mathematics is an essential part of being ready for college and career.

The Standards for Mathematical Content form the backbone of this document. Each of these ten standards consists of Core Concepts, Core Skills, and a description of the student's Coherent Understanding. Students who encounter the subject with a focus on coherence will be better able to learn more mathematics at a deeper level and be better able to access and apply the mathematics they know. The ten Standards for Mathematical Content pull together topics previously studied and look ahead toward topics in further coursework and training programs.

The Standards for Mathematical Content are designed to draw greater attention to powerful organizing principles in mathematics, such as functional relationships or the laws of arithmetic. They also allow important distinctions to be made more clearly, such as that between Expressions and Equations. And they surface the deep connections that often underlie mathematical coherence, such as the blending of algebra with geometry represented by Coordinates. These ten are not categories or buckets of topics to cover; they are standards. They describe the coherence students need and deserve as they go forward to their mathematical futures.

The third component of the *College and Career Readiness Standards for Mathematics* is a Web-based collection of Example Tasks that exemplifies the variety of performances required. High standards demand that students *use* their knowledge, skills and good practices to solve problems from a variety of contexts, both within mathematics and from the world outside. Example Tasks exemplify the range and variety of use that is expected. Teachers and designers of curriculum and assessment will find in the collection of examples a guide to what these standards mean. Over time, the collection of tasks will grow.

Together, these three components establish an evidence-based standard for college and career readiness. The *College and Career Readiness Standards for Mathematics* have been created with attention to the expectations of the highest achieving countries. They have focus and depth, emphasizing the understanding of and connections among topics that are most important for success regardless of a student's pathway after reaching these standards.

A primary goal of developing these standards is to enable students to achieve *mathematical proficiency* (see sidebar). Students are expected to understand the knowledge described in the Core Concepts and in the Coherent Understandings at a depth that enables them to reason with that knowledge—to analyze, interpret and evaluate mathematical problems, make deductions, and justify results. The Core Skills are meant to be used **strategically and adaptively to solve problems**. Students’ knowledge and skills come to life and take their value when melded with the ways they approach mathematics—as described by the Core Practices.

The specific verbs used to describe concepts and skills in these standards are not meant to limit or indicate levels of any taxonomy. Although using verbs to indicate levels of depth has been a common practice in **this country’s** standards writing, high performing nations do not use verbs in this way. They describe depth and practices first in separate sections of their syllabi. We have adopted the high performing countries’ practice of focusing on a clear statement of what mathematics should be learned when writing standards for knowledge and skills.

Instruction, curriculum and assessment designed to achieve these standards should range over all strands of proficiency in *Adding It Up*, all depths of knowledge in Norman L. Webb’s Depth of Knowledge taxonomy, all levels of Bloom’s Taxonomy, and all levels of cognitive demand. In the Core Skills and Core Practices we have **sometimes used terms like “explore” to indicate a lighter treatment with a goal of awareness and experience rather than proficiency**. We have used Example Tasks to show the depth of knowledge and deployment of skills expected.

These standards are measurable; that is, they are observable and verifiable through the broad spectrum of student performances that may be assessed during classroom observation, school-based examinations and large-scale testing. The *College and Career Readiness Standards for Mathematics* can guide the development of assessment frameworks that distribute the assessment responsibilities across multiple levels of the educational system: state, district, school and teacher.

Students reaching these levels will be prepared for non-remedial college mathematics courses and will be prepared for training programs for career-level jobs; however, the *College and Career Readiness Standards for Mathematics* should not be construed as grade twelve exit standards. Students interested in STEM fields, and those who wish to go beyond for other reasons, will need to reach these standards before their senior year in order to have time to include additional mathematics. A number of pathways for advanced learning are possible and may be integrated throughout the high school experience and beyond.

From *Adding it up: Helping children learn mathematics* (National Research Council, 2001, p. 116):

Recognizing that no term captures completely all aspects of expertise, competence, knowledge, and facility in mathematics, we have chosen mathematical proficiency to capture what we believe is necessary for anyone to learn mathematics successfully. Mathematical proficiency, as we see it, has five components, or strands:

conceptual understanding—comprehension of mathematical concepts, operations, and relations

procedural fluency—skill in carrying out procedures flexibly, accurately, efficiently, and appropriately

strategic competence—ability to formulate, represent, and solve mathematical problems

adaptive reasoning—capacity for logical thought, reflection, explanation, and justification

productive disposition—habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy.

## The Common Core State Standards Initiative

The *College and Career Readiness Standards for Mathematics* will anchor the next phase of the Common Core State Standards Initiative: development of K–12 Mathematics Standards. Those K–12 Standards are in turn expected to guide the development of a next generation of assessments, developed collaboratively by multiple states. The K–12 Mathematics Standards will serve as a guide and tool for aligning instruction, curriculum, assessment, teacher supports, and systems of accountability. To ensure alignment, the Standard for Mathematical Practice, the Standards for Mathematical Content, and the Example Tasks should all be taken into account.

### Overview of the Mathematical Practice Standard

- Attend to precision.
- Construct viable arguments.
- Make sense of complex problems and persevere in solving them.
- Look for structure.
- Look for and express regularity in repeated reasoning.
- Make strategic decisions about the use of technological tools.

### Overview of the Mathematical Content Standards

**Number.** Procedural fluency in operations with real numbers and strategic competence in approximation are grounded in an understanding of place value. The rules of arithmetic govern operations on numbers and extend to operations in algebra.

**Quantity.** A quantity is an attribute of an object or phenomenon that can be specified using a number and a unit, such as 2.7 centimeters, 42 questions or 28 miles per gallon.

**Expressions.** Expressions use numbers, variables and operations to describe computations. The rules of arithmetic, the use of parentheses and the conventions about order of operations assure that the computation has a well-determined value.

**Equations.** An equation is a statement that two expressions are equal. Solutions to an equation are the values of the variables in it that make it true.

**Functions.** Functions model situations where one quantity determines another. Because nature and society are full of dependencies, functions are important tools in the construction of mathematical models.

**Modeling.** Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

**Shape.** From only a few axioms, the deductive method of Euclid generates a rich body of theorems about geometric objects, their attributes and relationships.

**Coordinates.** Applying a coordinate system to Euclidean space connects algebra and geometry, resulting in powerful methods of analysis and problem solving.

**Probability.** Probability assesses the likelihood of an event in a situation that involves randomness. It quantifies the degree of certainty that an event will happen as a number from 0 through 1.

**Statistics.** Decisions or predictions are often based on data—numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability in the data.

## How Evidence Informed Decisions in Drafting the Standards

The Common Core State Standards Initiative builds on a generation of standards efforts led by states and national organizations. On behalf of the states, we have taken a step toward the next generation of standards that are aligned to college- and career-ready expectations and are internationally benchmarked. These standards are grounded in evidence from many sources that shows that the next generation of standards in mathematics must be focused on deeper, more thorough understanding of more fundamental mathematical ideas and higher mastery of these fewer, more useful skills.

The evidence that supports this new direction comes from a variety of sources. International comparisons show that high performing countries focus on fewer topics and that the U.S. curriculum is “a mile wide and an inch deep.” Surveys of college faculty show the need to shift away from high school courses that merely survey advanced topics, toward courses that concentrate on developing an understanding and mastery of ideas and skills that are at the core of advanced mathematics. Reviews of data on student performance show the large majority of U.S. students are not mastering the mile wide list of topics that teachers cover.

The evidence tells us that in high performing countries like Singapore, the gap between what is taught and what is learned is relatively smaller than in Malaysia or the U.S. states. Malaysia’s standards are higher than Singapore’s, but their performance is much lower. One could interpret the narrower gap in Singapore as evidence that they actually use their standards to manage instruction; that is, Singapore’s standards were set within the reach of hard work for their system and their population. Singapore’s Ministry of Education flags its webpage with the motto, “Teach Less, Learn More.” We accepted the challenge of writing standards that could work that way for U.S. teachers and students: By providing focus and coherence, we could enable more learning to take place at all levels.

However, a set of standards cannot be simplistically “derived” from any body of evidence. It is more accurate to say that we used evidence to inform our decisions. A few examples will illustrate how this was done.

For example, systems of linear equations are covered by all states, yet students perform surprisingly poorly on this topic when assessed by ACT. We determined that systems of linear equations have high coherence value, mathematically; that this topic is included by all high performing nations; and that it has moderately high value to college faculty. Result: We included it in our standards.

A different and more complex pattern of evidence appeared with families of functions. Again we found that students performed poorly on problems related to many advanced functions (trigonometric, logarithmic, quadratic, exponential, and so on). Again we found that a number of states cover them, even though college faculty rated them lower in value. High performing countries include this material, but with different degrees of demand. We decided that we had to carve a careful line through these topics so that limited teaching resources could focus where most important. We decided that students should

develop deep understanding and mastery of linear and exponential functions. They should also have familiarity with other families of functions, and apply their algebraic, modeling and problem solving skills to them—but not develop in-depth technical mastery and understanding. Thus we defined two distinct levels of attention and identified which families of functions got which level of attention.

Why were exponential functions selected for intensive focus in the Functions standard instead of, say, quadratic functions? What tipped the balance was the high coherence value of exponential functions in supporting modeling and their wide utility in work and life. Quadratic functions were also judged to be well supported by expectations defined under Expressions and Equations.

These examples indicate the kind of reasoning, informed by evidence, that it takes to design standards aligned to the demands of college and career readiness in a global economy. We considered inclusion in international standards, requirements of college and the workplace, surveys of college faculty and the business community, and other sources of evidence. As we navigated these sometimes conflicting signals, we always remained aware of the finiteness of instructional resources and the need for deep mathematical coherence in the standards.

At the end of this document, there is a listing of a number of sources that played a role in the deliberations described above and more generally throughout the process to inform our decisions. A hyperlinked version of the bibliography can be found online at [www.corestandards.org](http://www.corestandards.org).

## The Common Core K–12 Mathematics Standards

This document provides grade level standards for mathematics in grades K–8, and high school standards organized under the headings of the *College and Career Readiness Standards in Mathematics*. Students reaching the readiness level described in that document (adjusted in response to feedback) will be prepared for non-remedial college mathematics courses and for training programs for career-level jobs. Recognizing that most students and parents have higher aspirations, and that ready for college is not the same as ready for mathematics-intensive majors and careers, we have included in this document standards going beyond the readiness level. Most students will cover these additional standards. Students who want the option of entering STEM fields will reach the readiness level by grade 10 or 11 and take precalculus or calculus before graduating from high school. Other students will go beyond readiness through statistics to college. Other pathways can be designed and available as long as they include the readiness level. The final draft of the K–12 standards will indicate which concepts and skills are needed to reach the readiness level and which go beyond. We welcome feedback from states on where that line should be drawn.

### English Language Learners in Mathematics Classrooms

English language learners (ELLs) must be held to the same high standards expected of students who are already proficient in English. However, because these students are acquiring English language proficiency and content area knowledge concurrently, some students will require additional time and all will require appropriate instructional support and aligned assessments.

ELLs are a heterogeneous group with differences in ethnic background, first language, socio-economic status, quality of prior schooling, and levels of English language proficiency. Effectively educating these students requires adjusting instruction and assessment in ways that consider these factors. For example ELLs who are literate in a first language that shares cognates with English can apply first-language vocabulary knowledge when reading in English; likewise ELLs with high levels of schooling can bring to bear conceptual knowledge developed in their first language when reading in a second language. On the other hand, ELLs with limited or interrupted schooling will need to acquire background knowledge prerequisite to educational tasks at hand. As they become acculturated to US schools, ELLs who are newcomers will need sufficiently scaffolded instruction and assessments to make sense of content delivered in a second language and display this content knowledge.

While some ELLs are economically and educationally advantaged, this is not the case for many of these students. Moreover, once in the U.S., the majority of ELLs attend high poverty schools with high percentages of other ELLs. These schools often lack the resources and capacity needed to help ELLs reach high academic standards. However, schools and districts can be assisted in providing a positive learning environment that capitalizes on the linguistic and cultural diversity of the student body.

Language proficiency is a complex construct that can reflect proficiency in multiple contexts, modes, and academic disciplines. Current measures of language proficiency may not give an accurate picture of an individual's language competence. In particular, we do not have measures or assessments for language proficiency related to competence in mathematics for different ages or mathematical topics. These two facts can confuse discussions of mathematics instruction for ELLs. In particular, because of the complexity of language proficiency and the limitations of the label "English Language Learner" as currently implemented, instructional decisions should not be made solely based on that label. However, research on language and mathematics education for this student population does provide a few clear results to guide practices for teaching ELLs mathematics:

- English learners can participate in mathematical discussions as they learn English (Moschkovich, 1999a, 2002, 2007a, 2007b, 2007d).

- Mathematics instruction for students who are learning English should draw on multiple resources and modes available in classrooms—such as objects, drawings, inscriptions, and gestures—as well as home languages and mathematical experiences outside of school.
- While mathematics instruction for ELLs should address mathematical discourse and academic language, this involves much more than vocabulary instruction.

### Basic principles for improving the mathematics achievement of ELLs

Language is a resource for learning mathematics, it is not only a tool for communicating, but also a tool for thinking and reasoning mathematically. All languages (English, Spanish, Tagalog, etc.) and language varieties (different dialects, home or everyday ways of talking, vernacular, slang, etc.) provide resources for mathematical thinking, reasoning, and communicating.

Regular and active participation in the classroom—not only reading and listening but also discussing, explaining, writing, representing, and presenting—is crucial to ELLs’ success in mathematics, and that ELLs can produce explanations, presentations, etc. and participate in classroom discussions *as they are learning English* (Moschkovich, 1999 and 2007).

- ELLs, like English-speaking students, require regular access to teaching practices that are most effective for improving student achievement. These practices include: a) Keeping mathematical tasks at high-cognitive demand (Henningson & Stein, 1997; Silver & Stein, 1996); b) teachers and students attend explicitly to concepts (Hiebert & Grouws, 2007), and c) students wrestle with important mathematics (Hiebert & Grouws, 2007).
- See the evidence of ELLs’ mathematical thinking, hear how ELLs use language to communicate about mathematics, understand the competence that ELLs bring to the classroom, build on this competence, and provide access to opportunities for advancing their mathematics learning.

Overall, research suggests that:

- Classroom instruction should allow bilingual students to choose the language they prefer for arithmetic computation. Language switching can be swift, highly automatic, and facilitate rather than inhibit solving word problems in the second language, as long as the student’s language proficiency is sufficient for understanding the text of the word problem.
- Instruction should ensure that students understand the text of word problems before they attempt to solve them.
- Instruction should include a focus on “mathematical discourse” and “academic language” because these are important for English learners. Although it is crucial that students who are learning English have opportunities to communicate mathematically, this is not primarily a matter of learning vocabulary. Students learn to participate in mathematical reasoning, not by learning vocabulary, but by making conjectures, presenting explanations, and/or constructing arguments.
- While vocabulary instruction is important, it is not sufficient for supporting mathematical communication. Furthermore, vocabulary drill and practice are not the most effective instructional practices for learning vocabulary. Instead, research has demonstrated that vocabulary learning occurs most successfully through instructional environments that are language-rich, actively involve students in using language, require that students both understand spoken or written words and also express that understanding orally and in writing, and require students to use words in multiple ways over extended periods of time (Blachowicz, Camille, and Peter Fisher, 2000). To develop written and oral communication skills, students need to participate in negotiating meaning for mathematical situations and in mathematical practices that require output from students (Moschkovich, 2009).

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## Access for Students with Disabilities

The Common Core Standards articulate rigorous expectations in the areas of mathematics, reading, writing, and speaking and listening in order to prepare students to be college- and career-ready. These standards identify the knowledge and skills students must acquire in order to be successful. Research shows that students with disabilities are capable of high levels of learning and should not be limited by low expectations and watered down curriculum. It is imperative that these highly capable students—regardless of their disability—are held to the same expectations articulated in the Core Standards as other students.<sup>1</sup>

However, *how* these high standards are taught is of the utmost importance in reaching students with special needs. When learning the knowledge and skills represented in the Core Standards, students with disabilities may need accommodations or—in exceptional cases—modified goals, incorporated in an individualized education program (IEP),<sup>2</sup> to help them access information or demonstrate their knowledge. Students might be precluded from reaching particular standards given the nature of the standard itself. In instances when a standard asks students to perform actions they are physically incapable of, students will need to be presented with alternative options to demonstrate similar knowledge and skills within the range of their abilities. Accommodations based on individual needs allow students of all disability levels to learn within the framework of the Core.

### Meeting English Language Arts (ELA) Standards

Reading, writing, speaking, and listening standards often require accommodations for students with disabilities. In the case of students who are deaf, a standard that calls for "listening" should be interpreted to include reading sign language. In a similar vein, "speaking" as it occurs in standards for certain students with speech impairments should be read broadly to include "communication" or "self-expression." Students who are blind or have low vision should be able to read via Braille, screen reader technology, or other assistive technology to demonstrate their comprehension

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<sup>1</sup> Research suggests that the vast majority of the population of students with intellectual impairments *can* achieve proficiency when they receive high quality instruction in the grade-level content and appropriate accommodations.

<sup>2</sup> According to the Individuals with Disabilities Act (IDEA), an IEP includes appropriate accommodations that are necessary to measure the individual achievement and functional performance of a child.

skills. “Writing” should not preclude the use of a scribe, computer, or speech-to-text technology for students with disabilities that interfere with putting pen to paper. In the case of students with intellectual impairments—less than 2 percent of the total population of all students and less than 20 percent of students with disabilities—accommodations should allow them to demonstrate their knowledge and skills through alternative modes like text to speech software or reading aloud. For these students, writing may involve the use of pictures to assist in illustrating plot or argument, or offering them the opportunity to “choose words and phrases” by selecting from options rather than generating direct answers. With appropriate accommodations and support, students with all levels of disabilities can participate in the general education curriculum and achieve grade-level proficiency with regard to the ELA content and skills articulated in the Core.

## Meeting Mathematics Standards

In curriculum for students with disabilities, ELA skills often take precedence over mathematics understanding. However, most of these students can master mathematical concepts with accommodations in instructional delivery and the use of specialized technology, including computers and calculators. For example, students with visual disabilities might require enhanced verbal descriptions from teachers and the use of large-print to demonstrate subsequent knowledge. Students who are deaf might require visual aids such as charts, diagrams, and mental images and increased reliance on computers and calculators. Manipulatives can enable students with intellectual impairments to grasp abstract concepts and continue learning. Evidence suggests that students with disabilities, even those with full intellectual abilities, tend to lag behind their peers in mathematics achievement; strong curriculum that gives equal priority to mathematics and ELA will help these students succeed.

In short, while the standards remain and retain high expectations of students, they may need to be translated and occasionally modified to appropriately apply to students with disabilities, including all levels of intellectual impairment. Every student deserves to be treated with respect, and every student deserves an outstanding education. Promoting a culture of high expectations for all students is a fundamental goal of the Core Standards. Reaching students with disabilities requires broadening our understanding of what the standards say and being ready to make appropriate accommodations and/or modifications to meet individual students’ needs.

## How to read this document

The K–8 standards are organized by grade level. Within each grade level there are several headings, each one the title of a single progression having significant presence in the grade in question. Under each of these progression headings, there appear **core standards**, divided into standards describing concepts students should understand and standards describing skills students should acquire. A typical progression spans a number of grades, but does not span all of K-8. The progressions and their grade spans are listed at the end of the document.

The high school standards are not organized by grade level or by course, but rather are organized under headings of the *College and Career Ready Standards for Mathematics*: Expressions, Equations, Functions, Coordinates, Modeling, Statistics, Probability, and Geometry.<sup>3</sup> Subheadings under each heading refer either to mathematical practices or to principle topics, and core standards are listed under each subheading, as in the K-8 standards. The subheadings are not necessarily curricular units, but rather can describe concepts and skills that are revisited throughout a student's high school career. This design necessitates a future effort to develop course sequences (either traditional or integrated).

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<sup>3</sup> Number and Quantity are not included, since they are principally the domain of K–8. In response to feedback, the headings have been reordered and Shape has been renamed to Geometry.

## Mathematical Practice<sup>4</sup>

Proficient students expect mathematics to make sense. They take an active stance in solving mathematical problems. When faced with a non-routine problem, they have the courage to plunge in and try something, and they have the procedural and conceptual tools to carry through. They are experimenters and inventors, and can adapt known strategies to new problems. They think strategically.

Students who engage in these practices discover ideas and gain insights that spur them to pursue mathematics beyond the classroom walls. They learn that effort counts in mathematical achievement.<sup>a</sup> These are practices that expert mathematical thinkers encourage in apprentices. Encouraging these practices in our students should be as much a goal of the mathematics curriculum as is teaching specific content topics and procedures.<sup>b</sup> Taken together with the Standards for Mathematical Content, they support productive entry into college courses or career pathways.

### Core Standards · Students can and do:

#### 1 Attend to precision.

Mathematically proficient students organize their own ideas in a way that can be communicated precisely to others, and they analyze and evaluate others' mathematical thinking and strategies noting the assumptions made. They clarify definitions. They state the meaning of the symbols they choose, are careful about specifying units of measure and labeling axes, and express their answers with an appropriate degree of precision. Rather than saying, "let  $v$  be speed and let  $t$  be time," they would say "let  $v$  be the speed in meters per second and let  $t$  be the elapsed time in seconds from a given starting time." They recognize that when someone says the population of the United States in June 2008 was 304,059,724, the last few digits indicate unwarranted precision.

#### 2 Construct viable arguments.

Mathematically proficient students understand and use stated assumptions, definitions and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They break things down into cases and can recognize and use counterexamples. They use logic to justify their conclusions, communicate them to others and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose.

#### 3 Make sense of complex problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They consider analogous problems, try special cases and work on simpler forms. They evaluate their progress and change course if necessary. They try putting algebraic expressions into different forms or try changing the viewing window on their calculator to get the information they need. They look for correspondences between equations, verbal descriptions, tables, and graphs. They draw diagrams of relationships, graph data, search for regularity and trends, and construct mathematical models. They check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?"

#### 4 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern. For example, in  $x^2 + 5x + 6$  they can see the 5 as  $2 + 3$  and the 6 as  $2 \times 3$ . They recognize the significance of an existing line in a geometric figure and can add an auxiliary line to make the solution of a problem clear. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects. For example, by seeing  $5 - 3(x$

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<sup>4</sup> Slated for review and editing, based on feedback to the College and Career Readiness Standards, and in order to apply more naturally to elementary school as well.

$-y)^2$  as 5 minus a positive number times a square, they see that it cannot be more than 5 for any real numbers  $x$  and  $y$ .<sup>b</sup>

## 5 Look for and express regularity in repeated reasoning.

Mathematically proficient students pay attention to repeated calculations as they carry them out, and look both for general algorithms and for shortcuts. For example, by paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, they might abstract the equation  $(y - 2)/(x - 1) = 3$ . Noticing the regularity in the way terms cancel in the expansions of  $(x - 1)(x + 1)$ ,  $(x - 1)(x^2 + x + 1)$ , and  $(x - 1)(x^3 + x^2 + x + 1)$  leads to the general formula for the sum of a geometric series. As they work through the solution to a problem, proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.<sup>b</sup>

## 6 Reason quantitatively.

Quantitative reasoning is a way of thinking by which one reasons with quantities and about relations among quantities. It entails habits of creating a coherent image of the problem at hand; considering the units involved; continually attending to the meaning of quantities, not just how to compute them; and having multiple images of a concept and being flexible in transitioning among them. In problems dealing with quantitative relationships, students exercise two inseparable abilities: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referential meanings for the symbols involved in the manipulation.

## 7 Make strategic decisions about the use of technological tools.

Mathematically proficient students consider the available tools when solving a mathematical problem, whether pencil and paper, ruler, protractor, graphing calculator, spreadsheet, computer algebra system, statistical package, or dynamic geometry software. They are familiar enough with all of these tools to make sound decisions about when each might be helpful. They use mathematical understanding and estimation strategically, attending to levels of precision, to ensure appropriate levels of approximation and to detect possible errors. They are able to use these tools to explore and deepen their understanding of concepts.

## Mathematics: Kindergarten<sup>5</sup>

### Developing Coherent Understanding

[Temporarily removed for editing.]

#### Counting and Cardinality

##### Core Standards · Students understand that:

1. The number words have a standard order.
2. In counting, each object receives one and only one number word.
3. The last number word tells the number of objects.
4. Numbers said later in the count refer to larger quantities.
5. Counting on 1 more is the same as adding 1. That is, one more than a number is the next number in the count.

##### Core Standards · Students can and do:

- a. Count by ones from 1 to 100; count by tens to 100.<sup>6</sup>
- b. Count forward from a given number within the known sequence (instead of always counting forward from 1).<sup>7</sup>
- c. See collections of up to 10 objects as being composed of subgroups.
- d. Count to answer “how many?” questions with up to 10 things in various arrangements (e.g., array, circular, scattered), or up to 25 things if in a row.
- e. Write numerals from 1 to at least 30.

#### Base Ten Computation

##### Core Standards · Students understand that:

1. Ten ones make a tens unit (ten things can be thought of as bundled into a single unit).
2. Decade words refer to groups of tens units. For example, thirty refers to a group of three tens units.
3. A teen number<sup>8</sup> is a ten and some ones. The number 10 can be thought of as a ten and no ones.
4. Any teen number is larger than any single digit number. Teen numbers are ordered according to their ones digits.
5. A two-digit number is some tens and some ones. For example, 29 is two tens and nine ones.

##### Core Standards · Students can and do:

- a. Make 10 with each number from 1 to 9 (i.e., know the number that makes 10 with the given number).
- b. Show each teen number as a ten and some ones.

#### Early Relations and Operations

##### Core Standards · Students understand that:

<sup>5</sup> Some material is used verbatim from National Research Council. (2009). *Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity*. Committee on Early Childhood Mathematics, Christopher T. Cross, Taniesha A. Woods, and Heidi Schweingruber, Editors. Center for Education, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

<sup>6</sup> To “count” here means only to say the number words, not to determine how many objects are in a collection.

<sup>7</sup> To “count” here means only to say the number words, not to determine how many objects are in a collection.

<sup>8</sup> Glossary: Teen number. A whole number that is greater than or equal to 11 and less than or equal to 19.

1. Adding is putting two groups together or putting some more with a group, and subtracting is taking some from a group.
2. Addition and subtraction can be represented with physical or mental objects (including fingers), pictures, drawings, sounds (e.g. number words), motions, or equations.
3. Adding can be recorded by an expression, as when “three more than six” is recorded as  $6 + 3$ , or by an equation that also shows the answer ( $6 + 3 = 9$ ). Likewise, subtracting can be recorded by an expression, as when “how much more than 9 is 5” is recorded as  $9 - 5$ , or by an equation that also shows the answer ( $9 - 5 = 4$ ).
4. Breaking apart a group can be recorded in an equation such as  $8 = 5 + 3$ . Breaking apart a group in more than one way can be recorded in an equation such as  $7 + 6 = 10 + 3$ .
5. In all equations, the equals sign indicates that the values on either side are the same.

#### Core Standards · Students can and do:

- a. Use matching and counting strategies to decide whether one set is more than, less than, or equal to another set in number of objects (less than or equal to 10).
- b. Compare and order numbers less than or equal to 10.
- c. Use concrete objects to determine the answer to addition and subtraction word problems and additions and subtractions with totals less than or equal to 10.
- d. Experience enough problem situations so that additions to five and the corresponding subtractions and some additions and subtractions within ten become well known.

### Quantity and Measurement

#### Core Standards · Students understand that:

1. Things have attributes—such as length, weight, capacity, loudness, softness, and so on. A single thing might have several attributes of interest (as when we focus on a child’s height and gender).

#### Core Standards · Students can and do:

- a. Directly compare two objects to see which one has “more of” a shared attribute.
- b. Rank three objects by a shared attribute (especially length), and use transitivity<sup>9</sup> to compare two objects indirectly.
- c. ♦ Classify objects or people into predetermined categories, and count the numbers in each category. List the categories and counts in order by count. (Each category count less than or equal to 10.)<sup>10</sup>

### Shapes

#### Core Standards · Students understand that:

1. Names refer to shapes regardless of orientation or overall size.<sup>11</sup>

#### Core Standards · Students can and do:

- a. Study a range of 2D and 3D shapes, in different sizes and orientations, and discuss their properties, similarities, and differences using informal language.

<sup>9</sup> Glossary: Transitive property of measurement order: If one object is bigger than a second, and the second object is bigger than a third object, then the first object is bigger than the third object.

<sup>10</sup> The symbol ♦ indicates material in data analysis and statistics that appears under another progression heading in order to make an important connection.

<sup>11</sup> For example, a square rotated to form a “diamond” is still a square, even though it is rotated. Students at this grade might need to physically rotate a shape until it is “level” before they can correctly name it.

- b. Move shapes using translations, reflections and rotations.<sup>12</sup>

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<sup>12</sup> This is not meant to be assessed by showing students a picture of a shape and asking them to draw or select a translated, reflected or rotated version of it.

## Mathematics: First Grade<sup>13</sup>

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### Developing Coherent Understanding

[Temporarily removed for editing.]

#### Early Relations and Operations

##### Core Standards · Students understand that:

1. Counting on is an efficient method of counting all, in which the initial count of the first addend is omitted.
2. Addition and subtraction apply to situations of joining, separating, part-part-whole, and comparing quantities to one another.<sup>14</sup> These situations can be represented by addition and subtraction equations such as  $7 + 5 = 12$ ,  $10 = 5 + 5$ , and so on.
3. Addition and subtraction are inverse operations; that is  $10 - 8$  can be found by thinking  $8 + 2 = 10$ .
4. When any two of the numbers in an addition or subtraction equation are known, the unknown number can be found.
5. One-to-one dealing of objects in a collection (e.g., “One for you, one for me, one for him, ...”) creates fair shares.

##### Core Standards · Students can and do:

- a. Use counting on strategies or decomposing strategies for additions and subtractions within 20.
- b. Solve addition problems containing three addends.
- c. Use objects, pictures and story contexts to explain what happens when the order of addends in a sum is changed, when 0 is added to a number, and when one addend in a sum is increased by 1 and another decreased by 1.
- d. Experience enough problem situations so that many or all sums and differences within 20 become well known.
- e. Use drawings and equations to represent and solve word problems involving addition and subtraction.<sup>15</sup>
- f. ♦ Organize, represent and interpret data with several categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another
- g. Create  $n$  fair shares from a collection of objects. Identify the size of one share, and recognize the original collection as  $n$  copies of a single share.

#### Quantity and Measurement

##### Core Standards · Students understand that:

1. Lengths can be added by placing long objects, rods, or unit cubes end to end in a straight line. The total length is the same in whatever order the rods are placed.

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<sup>13</sup> Some material is used verbatim from National Research Council. (2009, op. cit.)

<sup>14</sup> In join and separate problems, there is change over time. In part-part-whole problems, two quantities make up a whole in a static situation. Compare problems involve two quantities and the difference between them. Compare problems add specificity to the notions of greater than and less than.

<sup>15</sup> Include join, separate, part-part-whole, and compare problems, with unknowns in all positions. Represent these situations with equations that use a small square or a ? for the unknown.

- Lengths can be compared by placing rods side by side, with one end lined up. The difference in length is how far the longer extends beyond the end of the shorter.
- Lengths are measured (assigned numerical values) by comparing them to other lengths—that is, by using another object as a length unit. The length of an object can be expressed numerically by counting the number of length units that span it with no gaps or overlaps.
- When an object or figure is decomposed into several pieces, the length of the whole can be found by placing the pieces end to end in any order.
- A sum of two whole numbers represents a total length; a difference of two whole numbers represents a difference in length.
- Durations of time are measured by comparing them to other durations of time, such as the earth’s rotation period, or the time a minute hand takes to complete a circle around a clock face.

**Core Standards · Students can and do:**

- Using an object as a length unit, measure, compare and estimate length.<sup>16</sup>
- Using an object as a length unit, determine total length by adding lengths of two parts.<sup>17</sup> Compare lengths using addition and subtraction.
- Decompose circles and rectangles into 2 and 4 equal parts. Describe the parts using the words “halves” and “quarters,” and using the phrases “half of” and “quarter of.” Describe the wholes as twice or four times as large as the parts.
- Tell time in hours from clocks; subtract to find whole-hour durations on a clock (within AM or within PM).

**Base Ten Computation**

**Core Standards · Students understand that:**

- In comparing two-digit numbers, the number with more tens units is larger; if the number of tens units is the same in each, the number of ones units decides.
- In adding or subtracting 2-digit numbers, one adds or subtract like units (tens units and tens units, or ones units and ones units).

**Core Standards · Students can and do:**

- Count to 100 or beyond, switching appropriately to the new decade after a 9 has been said in the ones place.
- Compare and order numbers to 100 based on meanings of the tens and ones places.
- Easily write numerals to 20; write numerals to 100.
- Use break-apart and make-a-ten strategies to add and subtract with teen totals as in  $7 + 6 = 10 + 3$  and  $17 - 9 = 17 - 7 - 2$ .
- Find 10 more or 10 less than a number without having to count.
- Add one-digit numbers to two-digit numbers, and add multiples of 10 to one-digit and two-digit numbers.
- Represent addition of two-digit numbers using 10-rods and unit cubes,<sup>18</sup> including rearranging rods and cubes to show regrouping when needed.
- Add two-digit numbers to two-digit numbers using strategies based on place value, Properties of Arithmetic, or the inverse relationship between addition and subtraction.

**Shapes**

<sup>16</sup> Select and iterate units, partition into equal parts, and compare lengths indirectly by using a reference length.

<sup>17</sup> Restrict to whole-unit lengths.

<sup>18</sup> Any concrete model that can show individual units and ten connected units will do.

**Core Standards · Students understand that:**

1. Several shapes can be joined together to form a larger shape. A single shape can also be visualized as a collection of smaller shapes joined together.
2. Decomposing larger shapes into equal-sized parts creates fair shares.
3. When an identical figure is decomposed into more fair shares, the shares are smaller than in the first instance.

**Core Standards · Students can and do:**

- a. Form different 2D figures with cutouts of rectangles, squares, triangles, semicircles, and quarter-circles.<sup>19</sup>
- b. Form different 3D figures with concrete models of cubes, rectangular prisms, cones, and cylinders.<sup>20</sup>
- c. Decompose 2D shapes into rectangles, squares, triangles, semicircles, and quarter-circles, including decomposing into fair shares.

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<sup>19</sup> From Singapore Primary 2

<sup>20</sup> From Singapore Primary 2

## Mathematics: Second Grade

### Developing Coherent Understanding

[Temporarily removed for editing.]

### Operations and the Problems They Solve

#### Core Standards · Students understand that:

1. Addition and subtraction apply to situations of joining, separating, part-part-whole, and comparing quantities to one another.<sup>21</sup> These situations can be represented by addition and subtraction equations such as  $17 + 5 = 22$ ,  $36 = 56 - 20$ , and so on.
2. Addition and subtraction are inverse operations; that is  $100 - 98$  can be found by thinking  $98 + 2 = 100$ .
3. Numbers can be added and subtracted only when they refer to the same underlying unit.

#### Core Standards · Students can and do:

- a. Use representations (objects, pictures, story contexts) to describe and justify properties of addition and subtraction.<sup>22</sup>
- b. Produce full sets of related equations for addition and subtraction, as in the set  $5 + 3 = 8$ ,  $3 + 5 = 8$ ,  $8 = 5 + 3$ ,  $8 = 3 + 5$ ,  $8 - 5 = 3$ ,  $8 - 3 = 5$ ,  $3 = 8 - 5$ ,  $5 = 8 - 3$ .
- c. Solve up to two-step addition/subtraction word problems with whole numbers and whole number quantities within 100.<sup>23</sup>

### Base Ten Computation

#### Core Standards · Students understand that:

1. A three-digit number is made up of hundreds, tens and ones units. Digits in each place are worth ten times as much as digits in the place to the right.
2. Comparison of numbers is decided by the leftmost digit, with subsequent digits breaking ties.
3. Three-digit numbers can be expanded into sums of hundreds, tens and ones units. In adding or subtracting, one adds or subtracts the units of each size; regrouping might be needed to write a total in standard form if there are too many of a unit, or to get enough of a unit to subtract from it.
4. The scheme for regrouping is the same at each place, because each unit is composed of ten of the smaller unit.

#### Core Standards · Students can and do:

- a. Compare and order numbers to 1,000.

<sup>21</sup> In join and separate problems, there is change over time. In part-part-whole problems, two quantities make up a whole in a static situation. Compare problems involve two quantities and the difference between them. Compare problems add specificity to the notions of greater than and less than.

<sup>22</sup> Include properties such as that the sum is the same when multiple addends are added in a different order; if adding two numbers gives a certain sum, then subtracting one of the addends from the sum results in the other addend; that if more is subtracted from a number, the difference is decreased and if less is subtracted the difference is increased; that in an addition problem, each addend can be taken apart and the parts can be recombined in any order without changing the sum.

<sup>23</sup> Include join, separate, part-part-whole, and compare problems, with unknowns in all positions. Represent these situations with equations that use a small square or a ? for the unknown.

- b. Given a three-digit number, quickly find 10 more or 10 less than the number, and quickly find 100 more or 100 less than the number.
- c. Rapidly add and subtract within 20.<sup>24</sup>
- d. Add and subtract three-digit numbers to three-digit numbers using strategies based on place value, Properties of Arithmetic, or the inverse relationship between addition and subtraction.
- e. Add and subtract three-digit numbers using an algorithm<sup>25</sup> based on place value and regrouping, such as the standard algorithm.
- f. Explain why addition and subtraction strategies and algorithms work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

## Quantity and Measurement

### Core Standards · Students understand that:

1. 1 inch, 1 foot, 1 centimeter and 1 meter are conventionally defined lengths that allow standardized length measurements.
2. When measuring a length, if a smaller unit is chosen, more units must be iterated to measure the length in those units. But the length of an object itself does not depend on the choice of unit.
3. Units can be decomposed into smaller units, e.g. a foot contains 12 inches and a meter contains 100 centimeters. A small number of long units might form a greater total length than a large number of small units.
4. Sharing a circle or rectangle fairly among 2-6 shares creates equal parts, each of which is a single unit. Copying one unit by the number of pieces measures the whole in terms of the units.
5. A half, a third, or a quarter of a given rectangle encloses the same amount of space regardless of its shape.

### Core Standards · Students can and do:

- a. Measure, compare and estimate whole-unit lengths in units of inches, feet centimeters and meters.
- b. Construct a number line with an origin (0) and a unit (1), marking off whole numbers one unit distance apart. Use a number line to represent sums and differences; determine lengths of intervals on the number line.
- c. Decompose circles and rectangles into 2-6 equal parts. Describe the parts using the words “halves,” “thirds,” “half of,” “a third of,” etc. Describe the wholes as 2-6 times as large as the parts.
- d. Construct a number line to 100 using tens-unit lengths, showing ones-unit lengths within a decade of interest. Explain regrouping by composing and decomposing concrete lengths.
- e. ♦ Draw a bar graph (with single-unit scale) to represent a data set with several categories. Solve simple part-part-whole and compare problems using information presented in a bar graph.<sup>26</sup>
- f. ♦ Identify correspondences in different representations of a data set with several categories.
- g. Solve word problems involving dollar bills, quarters, dimes, nickels and pennies.

## Shapes

### Core Standards · Students understand that:

<sup>24</sup> Acceptable strategies include: mental strategies such as making a ten, use of fingers to assist in rapid counting-on, and producing sums or differences from memory.

<sup>25</sup> Glossary: Algorithm. A step by step routine that always gives some answer, rather than ever giving no answer; that always gives the right answer, and never gives a wrong answer; that can always be completed in a finite number of steps, rather than in an infinite number of steps; and that applies to all problems of a given type (e.g., adding any two multidigit whole numbers, or bisecting any angle). Cf. Wikipedia’s “effective procedure,” from which this definition is adapted.

<sup>26</sup> For part-part-whole problems, only sum-unknown problems are required to meet this standard. For compare problems, only difference-unknown problems are required to meet the standard.

1. A given category of shapes (e.g., triangles) can be divided into subcategories (e.g., isosceles triangles) on the basis of special properties. Conversely, different classes of shapes (e.g., squares and rectangles) can be united into a larger category (e.g., quadrilaterals) on the basis of shared properties.

**Core Standards · Students can and do:**

- a. Draw and identify equilateral triangles, isosceles triangles,<sup>27</sup> squares and rectangles.<sup>28</sup>
- b. Recognize squares and rectangles as examples of quadrilaterals; draw examples of quadrilaterals that are neither squares nor rectangles.
- c. Draw and identify radii and diameters of a circle.
- d. Recognize objects that resemble spheres, cylinders and rectangular prisms.

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<sup>27</sup> Students at this grade need not understand that equilateral triangles are isosceles.

<sup>28</sup> Students at this grade need not understand that squares are rectangles.

# Mathematics: Third Grade

## Developing Coherent Understanding

[Temporarily removed for editing.]

### Operations and the Problems They Solve

#### Core Standards · Students understand that:

- Multiplication and division apply to situations of equal grouping, fair sharing, measuring, and comparing (“times as much”).
  - An equation of the form  $a \times b = n$  applies to a situation in which  $a$  groups of  $b$  things each make  $n$  things in all, or in which  $a$  copies of a continuous quantity of size  $b$  form a continuous quantity of size  $n$ . (See table for examples.)
  - An equation of the form  $n \div a = b$  tells how many things,  $b$ , are in each group when  $n$  things are divided equally into  $a$  groups, or tells how large a quantity  $b$  results when a continuous quantity of size  $n$  is shared fairly into  $a$  shares. (See table for examples.)
  - An equation of the form  $n \div b = a$  tells how many groups,  $a$ , result when  $n$  things are divided into equal groups of  $b$  things each, or tells how many fair shares,  $a$ , a quantity of size  $n$  yields when each share has size  $b$ . (See table for examples.)
  - Two quantities can be compared by multiplication or division. An equation of the form  $a \times b = n$  means  $n$  is  $a$  times as much as  $b$  and  $b$  times as much as  $a$ .
- Multiplication is commutative: The total number of things in  $a$  groups of  $b$  things each is the same as the total number of things in  $b$  groups of  $a$  things each, that is,  $a \times b = b \times a$ . Likewise,  $a$  copies of a continuous quantity of size  $b$  are equal in size to  $b$  copies of a continuous quantity of size  $a$ .
- The area of a rectangle with whole number side lengths can be calculated by multiplying because the rectangle can be decomposed into equal rows (or columns) of unit squares.
- Multiplication and division are inverse operations; that is  $35 \div 7$  can be found by thinking  $5 \times 7 = 35$ . When any two of the numbers in a multiplication or division equation are known, the unknown number can be found.

	$3 \times 6 = 18$	$18 \div 3 = 6$	$18 \div 6 = 3$
Collections	3 rows of apples with 6 apples in each row are 18 apples.	If 18 apples are arranged into 3 equal rows, each row will have 6 apples in it.	If 18 apples are arranged into equal rows of 3 apples, there will be 6 rows.
Continuous Quantities	If you have enough ribbon to make 6 bows, then 3 times as much ribbon will make 18 bows.	If you have enough ribbon to make 18 bows and share the ribbon fairly among 3 kids, then each kid has enough ribbon to make 6 bows.	If each kid wants to make 6 bows and there's enough ribbon to make 18 bows, then 3 kids can make bows.

#### Core Standards · Students can and do:

- a. Use representations (objects, pictures, story contexts) to describe and justify properties of multiplication and division.<sup>29</sup>
- b. Solve simple multiplication and division word problems involving equal groups, length and area.
- c. Solve up to two-step word problems involving the four operations with whole numbers and whole number quantities. (Whole number quotients only)
- d. Solve multiplicative comparison problems with whole numbers (problems involving the notion of “times as much”).
- e. ♦ Draw a scaled bar graph to represent a data set with several categories. Solve “how many more” / “how many less” problems (two-step problems) using information presented in scaled bar graphs.<sup>30</sup>

## Base Ten Computation

### Core Standards · Students understand that:

1. Patterns in the multiplication table can be explained by the Properties of Arithmetic. For example, the distributive property explains why, for any row, the entries in the 7 column are the sums of the entries in the 5 and 2 columns.
2. The Properties of Arithmetic can be used to derive new multiplications and divisions from known ones.

### Core Standards · Students can and do:

- a. Explain strategies for multiplying and dividing that use the Properties of Arithmetic and properties of the base ten system.
- b. Rapidly multiply and divide within 100.<sup>31</sup>
- c. Produce full sets of fact families for multiplication and division, as in the set  $6 \times 7 = 42$ ,  $7 \times 6 = 42$ ,  $42 = 7 \times 6$ ,  $42 = 6 \times 7$ ,  $42 \div 7 = 6$ ,  $42 \div 6 = 7$ ,  $6 = 42 \div 7$ ,  $7 = 42 \div 6$ .
- d. Find the factor pairs for a given number, as in the factor pairs for the number 42:  $\{42, 1\}$ ,  $\{21, 2\}$ ,  $\{14, 3\}$ ,  $\{7, 6\}$ .

## Fractions

### Core Standards · Students understand that:

1. When a whole, 1, is divided into  $b$  equal parts, the size of the parts is written  $1/b$ . To show  $1/b$  of something, divide the thing into  $b$  equal parts.
2. For a whole number  $a$  and a positive whole number  $b$ ,  $a/b$  is defined as  $a$  copies of  $1/b$ .<sup>32</sup> This can be thought of as the sum  $1/b + 1/b + \dots + 1/b$  (with  $a$  summands).
3. Whole numbers can be written as fractions, as in  $b/b = 1$ ,  $n/1 = n$ , and cases such as  $(4 \times 7)/4 = 7$ .
4. Fractions are numbers and can be seen as lengths on a number line.<sup>33</sup>

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<sup>29</sup> Include properties such as that the product is the same when the order of the factors is changed; that multiplication problems involving 1-digit numbers can be solved by breaking one factor apart additively and multiplying each part by the other factor; and that multiplying a quantity by a number, then dividing by the same number, leaves the original quantity unchanged.

<sup>30</sup> Include single-unit scales and multiple-unit scales. For multiple-unit scales, all counts should be evenly divisible by the scale factor. No count should represent more than ten of the scale unit, and no scale unit should represent more than ten counts.

<sup>31</sup> A variety of mental strategies are acceptable, including derived fact strategies and producing products or quotients from memory.

<sup>32</sup> This includes fractions greater than 1. For example,  $17/5$  is 17 copies of  $1/5$ .

<sup>33</sup> For example,  $17/5$  is 17 copies of the subinterval  $1/5$  laid end to end.

- Two fractions are equal when they represent the same portion of a whole, or when they have the same length on a number line. One fraction is greater than another when it represents a greater portion of the whole than the other, or lies to the right of the other on the number line.
- Given two unit fractions, the fraction with the larger denominator is smaller, because dividing a whole into a larger number of parts leads to smaller parts.
- Fractions with the same denominator can be added or subtracted by adding or subtracting the units indicated by the unit fraction. For example,  $\frac{2}{3} + \frac{4}{3}$  is 2 copies of  $\frac{1}{3}$  plus 4 copies of  $\frac{1}{3}$ , or 6 copies of  $\frac{1}{3}$  in all, that is  $\frac{6}{3}$ .
- The decimal 0.1 denotes the fraction  $\frac{1}{10}$ , 0.2 denotes  $\frac{2}{10}$ , and so on through 0.9, which denotes  $\frac{9}{10}$ .

#### Core Standards · Students can and do:

- Use fractions to describe quantities and parts of wholes.
- Compare and order fractions with equal numerators or equal denominators, including in contextual situations, using the fractions themselves, bar strip drawings, number line representations, and area models.
- Reason about fractions to establish equivalences between fractions with unlike denominators 2, 3, 4 and 6 (e.g.  $\frac{1}{2} = \frac{2}{4}$ ,  $\frac{4}{6} = \frac{2}{3}$ ).
- Add and subtract fractions with like denominators.
- Solve word problems that involve adding, subtracting, ordering and comparing fractions.
- Represent fractions of the form  $\frac{a}{10}$  in decimal notation; compare and order to tenths in decimal notation.

### Quantity and Measurement

#### Core Standards · Students understand that:

- A unit of measure can be partitioned into equal-sized parts, whose sizes can be represented as fractions of the unit.
- The area of a closed plane figure is a measure of how much space it encloses. A square with side length 1 unit is said to enclose “one square unit” of area.
- The area of a closed plane figure can be measured (expressed numerically) by the number of square units that fit inside it with no gaps or overlaps.
- Area is a model for multiplication because tiling a rectangle with unit squares shows that a rectangle  $a$  units long by  $b$  units wide encloses an area of  $a \times b$  square units.

#### Core Standards · Students can and do:

- Measure lengths using rulers marked with halves and fourths of inches. Make a dot plot to show repeated measurements.
- Convert compound units to a smaller or a larger unit, and solve problems involving mixed units (feet and inches, yards and feet).
- Using customary units, demonstrate and justify correct processes for measuring, comparing, and estimating length, mass, capacity, and durations of time, including unit selection, partitioning and iterating units, and transitivity.
- Compute perimeters of polygons by adding given side lengths, and find an unknown length in a polygon given the perimeter and all other side lengths. Represent these problems with equations involving a symbol for the unknown quantity.
- Determine and compare areas by counting square units (improvised units,  $\text{cm}^2$ ,  $\text{m}^2$ ,  $\text{in}^2$ ,  $\text{ft}^2$ ).
- Compute elapsed time and solve problems involving elapsed time (to the nearest minute).

## Mathematics: Fourth Grade

### Developing Coherent Understanding

[Temporarily removed for editing.]

### Operations and the Problems They Solve

#### Core Standards · Students understand that:

1. Quantities in a problem might be described with whole numbers, fractions or decimals; the operations used to solve the problem depend on the relationships between the quantities whatever numbers are involved.
2. The distributive property (of multiplication over addition) relates addition and multiplication. The distributive property can be shown numerically and visually, using arrays and area models.

#### Core Standards · Students can and do:

- a. Solve multistep word problems involving the four operations with whole numbers.<sup>34</sup>
- b. Estimate answers to computations and compute mentally to assess reasonableness of results.
- c. Solve problems that involve comparing, ordering, adding and subtracting fractions with like denominators. Compare fractions to benchmark fractions.
- d. Solve problems that involve comparing and ordering decimal numbers to hundredths. Compare decimals to benchmark decimals.
- e. ♦Make a table from given data, ask and answer questions about data in a table, solve multi-step problems using information presented in tables, and find patterns in tables.<sup>35</sup>

### Fractions

#### Core Standards · Students understand that:

1. The fraction  $a/b$  can be written as  $a \times 1/b$  because  $a/b$  is  $a$  copies of  $1/b$ .
2. When  $a$  identical things are divided into  $b$  equal parts, each of  $a$  things contributes  $1/b$ . So  $a \div b = a/b$ .<sup>36</sup>
3. A fraction can be multiplied by a whole number as  $n \times a/b = n \times a/b$ . For example,  $3 \times 2/5$  can be seen as 3 groups of 2 unit fractions  $1/5$ .<sup>37</sup>
4. A decimal of two digits stands for a sum of fractions whose denominators are 10 and 100. For example, 0.34 stands for  $3/10 + 4/100$ .

#### Core Standards · Students can and do:

- a. Reason about fractions to establish equivalences between related fractions<sup>38</sup> (e.g.  $3/10 = 30/100$ ,  $9/12 = 3/4$ ).

<sup>34</sup> Use the properties of multiplication (commutative, associative, identity) or the inverse relationship between multiplication and division (multiplying a number by  $b$  then dividing by  $b$ , and vice versa, leaves the number unchanged) to make sense of single digit multiplication and division situations and solve problems.

<sup>35</sup> Include tables with data from proportional relationships.

<sup>36</sup> This definition agrees with previous understandings of division in cases like  $28 \div 7$  (i.e., when  $a$  is a multiple of  $b$ ), but also gives meaning to quotients such as  $3 \div 4$  or  $7 \div 2$ .

<sup>37</sup> Using the Properties of Arithmetic,  $n \times a/b = n \times (a \times 1/b) = (n \times a) \times 1/b = (n \times a)/b$ .

- b. Add and subtract related fractions in simple cases within one whole (e.g.  $1/2 + 1/4$ ,  $3/10 + 4/100$ ).
- c. Solve word problems posed with whole numbers that have fractional answers.
- d. Represent multiplication of whole numbers by fractions and fractions by whole numbers, using length and area models.
- e. Solve word problems involving multiplying fractions by whole numbers and multiplying whole numbers by fractions.<sup>39</sup>
- f. Use decimals to hundredths to describe quantities and parts of wholes, compare and order decimals to hundredths, and write fractions of the form  $a/10$  or  $a/100$  in decimal notation.
- g. Round decimals (to hundredths) to the nearest whole number.
- h. Solve addition and subtraction story problems involving fractions with related denominators (situations familiar from whole number work).

## Base Ten Computation

### Core Standards · Students understand that:

1. The product of a one-digit number times a multidigit number is the sum of the products of the one-digit number times each place value component. This is an instance of the distributive property.
2. Multi-digit multiplication algorithms can be derived and explained by decomposing numbers into their place value components and applying the distributive property.
3. Digits in each place are worth ten times as much as digits in the place to the right and a tenth as much as digits to the left; comparison of numbers is decided by the leftmost digit, with subsequent digits breaking ties.
4. Given whole numbers  $a$  and  $b$ , find whole numbers  $Q$  and  $R$  so that  $a = Q \times b + R$ . For example, given 325 and 7, express 325 in the form  $325 = 46 \times 7 + 3$ .

### Core Standards · Students can and do:

- a. Demonstrate place value understanding for whole numbers to 1,000,000 and compare numbers within this range.
- b. Round whole numbers to the nearest 10 or 100 and use rounding to estimate computations.
- c. Multiply single place numbers (to 9000) by single digit numbers.<sup>40</sup>
- d. Multiply two-, three- and four-digit numbers by single-digit whole numbers, and multiply two-digit numbers by two-digit numbers, using strategies based on place value, Properties of Arithmetic, or the inverse relationship between multiplication and division.
- e. Multiply two-digit numbers by two-digit numbers using an algorithm based on place value and regrouping, such as the standard algorithm.
- f. Divide two-, three- and four-digit numbers by single-digit numbers, with or without remainder. In the case of remainders, express results in the form of an equation, as in  $325 = 46 \times 7 + 3$ .
- g. Explain why multiplication and division strategies and algorithms work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

## Quantity and Measurement

### Core Standards · Students understand that:

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<sup>38</sup> Glossary: Related fractions. Two fractions are *related* if one denominator is a factor of the other. (See Ginsburg, Leinwand and Decker (2009), *Informing Grades 1-6 Mathematics Standards Development: What Can Be Learned from High-Performing Hong Kong, Korea, and Singapore?*, Table A1, p. A-5, grades 3 and 4.)

<sup>39</sup> Include sharing multiple continuous wholes  $a$  fairly among  $b$  people, naming an individual share as  $a/b$ . For example 5 meters of pink ribbon shared among 3 people results in  $5/3$  meters each.

<sup>40</sup> Glossary: Single-place number. The numbers that result when a whole number between 1 and 9 (inclusive) is multiplied by the numbers 10, 100, 1000, etc.

1. Area is additive: If a figure is decomposed into several pieces, then the area of the whole figure can be found by adding the areas of the pieces (expressed in common units).
2. An angle is two rays with a common endpoint, and is measured by the relative amount of a circle that you trace when turning from one ray to the other.
3. A one-degree angle turns through  $1/360$  of a circle, where the circle is centered at the origin of the rays; the measure of an angle is the number of one-degree angle turned with no gaps or overlaps.

#### Core Standards · Students can and do:

- a. Apply the formula for area of squares and rectangles. Measure and compute whole-square-unit areas of objects and geometric figures decomposable into rectangles.<sup>41</sup>
- b. ♦ Make a dot plot to show repeated measurements in common fractions of a unit ( $1/2$ ,  $1/4$ ,  $1/8$ ). Solve problems involving addition and subtraction of fractions by using information presented in dot plots (e.g., finding the difference in length between the longest and shortest specimens in an insect collection).
- c. Draw scales (number line representations) of problem situations involving length, height and distance including fractional units or decimal numbers.
- d. Find one dimension of a rectangle given the other dimension and its area or perimeter; find the length of one side of a square given its area or perimeter. Represent these problems with equations involving a symbol for the unknown quantity.
- e. Measure angles in whole-number degrees using a protractor; sketch angles of specified measure. Find the measure of a missing part of an angle, given the measure of the angle and the measure of a part of it; represent these problems with equations involving a symbol for the unknown quantity.

### Shapes

#### Core Standards · Students understand that:

1. Shapes can be analyzed and classified using concepts of parallelism, perpendicularity and angle measure.

#### Core Standards · Students can and do:

- a. Draw points, lines, line segments, rays and angles; identify these in geometric figures.
- b. Associate angles of a quarter turn (subtending  $1/4$  of a circle) with angle measure  $90^\circ$ , a half turn ( $1/2$  of a circle) with angle measure  $180^\circ$ ,  $3/4$  turn ( $3/4$  of a circle) with angle measure  $270^\circ$ , and a full turn (complete circle) with angle measure  $360^\circ$ .<sup>42</sup>
- c. Draw perpendicular and parallel lines; identify these in geometric figures.
- d. Identify right angles and angles smaller than/greater than a right angle in geometric figures; recognize right triangles.
- e. Given a quadrilateral, say whether it is a square, whether it is a rectangle, and whether it is a parallelogram (with an understanding that a given shape may fit more than one category).

<sup>41</sup> using one-digit or two-digit numbers times two-digit numbers

<sup>42</sup> From Singapore Primary 4

## Mathematics: Fifth Grade

### Developing Coherent Understanding

[Temporarily removed for editing.]

### Fractions

#### Core Standards · Students understand that:

1. Fractions  $\frac{a}{b}$  and  $\frac{(n \times a)}{(n \times b)}$  are equal: for  $\frac{1}{b}$  is  $n$  copies of  $\frac{1}{(n \times b)}$ , so  $\frac{a}{b}$  is  $n \times a$  copies of  $\frac{1}{(n \times b)}$ . Example:  $\frac{1}{3}$  is 4 copies of  $\frac{1}{12}$ , so  $\frac{2}{3}$  is 8 copies of  $\frac{1}{12}$ ; thus  $\frac{2}{3} = \frac{8}{12}$ .
2. Fractions can be added or subtracted by replacing each with an equal fraction so that the resulting fractions have the same denominator. Example:  $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$ .
3. Multiplying unit fractions gives a new unit fraction with denominator equal to the product of the initial denominators. For example,  $\frac{1}{3} \times \frac{1}{2} = \frac{1}{(3 \times 2)}$ . The product  $\frac{1}{3} \times \frac{1}{2}$  is 1 part when a whole of size  $\frac{1}{2}$  is divided into 3 parts, i.e. it is " $\frac{1}{3}$  of  $\frac{1}{2}$ ."<sup>43</sup>
4. Multiplying unit fractions can be extended to multiplying fractions in general. For example,  $\frac{2}{3} \times \frac{4}{5}$  can be seen as 2 groups of 4 unit fractions  $\frac{1}{15}$ , hence the product is  $\frac{8}{15}$ .<sup>44</sup> The product  $\frac{2}{3} \times \frac{4}{5}$  is 2 parts when a whole of size  $\frac{4}{5}$  is divided into 3 parts, i.e. it is " $\frac{2}{3}$  of  $\frac{4}{5}$ ."<sup>45</sup>
5. Dividing a unit fraction  $\frac{1}{b}$  by a whole number  $n$  gives a unit fraction with denominator  $n \times b$ , because when  $\frac{1}{b}$  is divided into  $n$  equal parts, the size of each part is  $\frac{1}{(n \times b)}$ . For example,  $\frac{1}{3} \div 2 = \frac{1}{6}$ .
6. Dividing a whole number  $n$  by a unit fraction  $\frac{1}{b}$  gives a whole number  $n \times b$ , because, as there are  $b$  units of  $\frac{1}{b}$  in 1, there are  $n \times b$  units of  $\frac{1}{b}$  in  $n$ . For example,  $2 \div \frac{1}{3} = 6$ .
7. A mixed number stands for the sum of its whole number part and a fractional part less than 1. A mixed number can be written as a fraction greater than 1, such as  $\frac{17}{5}$ . This equivalence can be shown using area, length, and number line models.
8. The ratio of two whole number quantities  $a$  and  $b$ , written  $a:b$  or  $\frac{a}{b}$ , is a multiplicative comparison telling how much of one quantity there is for a given amount of the other, or how many times as much one is than the other.<sup>46</sup>

#### Core Standards · Students can and do:

- a. Use area models and length models (such as strip drawings or the number line) to represent multiplication of fractions, division of unit fractions by whole numbers, and division of whole numbers by unit fractions.
- b. Multiply fractions, divide unit fractions by whole numbers, and divide whole numbers by unit fractions, and solve word problems involving these operations.
- c. Divide whole numbers by single digit decimals by seeing that they are fractions with denominator 10 or 100.
- d. Rename fractions and mixed numbers to equivalent forms and identify equivalent fractions.
- e. Compare and order fractions and mixed numbers with like or unlike denominators, including in contextual situations, using the fractions themselves, strip drawings or number line representations, and area models. Describe the size of fractional quantities with reference to the problem situation.
- f. Make tables of equal ratios relating whole number quantities, and find missing values in the tables. Plot pairs of values on the coordinate plane. Example

<sup>43</sup> On the number line,  $\frac{1}{n} \times \frac{1}{d}$  is 1 part when the interval from 0 to  $\frac{1}{d}$  is divided into  $n$  parts. This is the same as 1 part when the interval from 0 to 1 is divided into  $n \times d$  parts, and thus  $\frac{1}{n} \times \frac{1}{d} = \frac{1}{n \times d}$ .

<sup>44</sup> Using the Properties of Arithmetic,  $\frac{2}{3} \times \frac{4}{5} = (2 \times \frac{1}{3}) \times (4 \times \frac{1}{5}) = (2 \times 4) \times (\frac{1}{3} \times \frac{1}{5}) = (2 \times 4) \times \frac{1}{3 \times 5} = \frac{2 \times 4}{3 \times 5}$ .

<sup>45</sup> On a number line,  $\frac{m}{n} \times \frac{c}{d}$  means  $m$  parts when the interval from 0 to  $\frac{c}{d}$  is divided into  $n$  parts.

<sup>46</sup> For example, in a mixture of 5 cups of flour and 2 cups of sugar, the ratio is 5 cups flour to 2 cups sugar. There is  $\frac{5}{2}$  times as much flour as sugar (equivalently,  $2 \frac{1}{2}$  times as much or 2.5 times as much).

Cups of Flour	5	10	?	20
Cups of Sugar	2	?	6	8
Flour:Sugar (fraction form)	$5/2$	$10/4$	?	$20/8$
Flour:Sugar (decimal form)	?	?	?	?

Hours of Snowfall	5	10	?	20
Inches of Snow	2	?	6	8
Inches:Hours (fraction form)	$2/5$	$4/10$	?	$8/20$
Inches:Hours (decimal form)	?	?	?	?

## Base Ten Computation

### Core Standards · Students understand that:

1. The standard division algorithm is based on successively finding the largest single digit multiple of the divisor that is less than the dividend, regrouping to the next lower unit if necessary, and then subtracting the multiple and repeating to find the next digit in the quotient.
2. The division algorithm can be used to express a fraction in decimal form by carrying the division into the decimal places.
3. The features of the place value system for whole numbers extend to the decimal positions and the combined system is symmetric around the ones place.
4. In adding or subtracting decimal numbers, one operates separately with the units of each size, except when regrouping is needed; the scheme for regrouping is the same at each place, because each unit is composed of ten of the next smaller unit.
5. Numbers in decimal notation can be shown on the number line by dividing and sub-dividing the unit intervals as many times as needed to locate the number. This process can be visualized as zooming in on the number line.

### Core Standards · Students can and do:

- a. Divide two, three and four digit numbers by two digit numbers, with remainder, using an algorithm based on place value and regrouping, such as the standard algorithm. In the case of remainders, express results in the form of an equation, as in  $145 = 11 \times 13 + 2$ .
- b. Understand very large and very small numbers (from millionths to hundreds of millions); round very large numbers.
- c. Quickly find 0.1 more than a number and less than a number; 0.01 more than a number and less than a number; and 0.001 more than a number and less than a number.
- d. Add and subtract decimals using an algorithm based on place value and regrouping, such as the standard algorithm, and solve problems involving these operations.
- e. Write fractions in decimal notation for denominators 2, 3, 4, 5, 6, 8, 10 and 100.
- f. Explain why strategies and algorithms for decimals work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

## Quantity and Measurement

### Core Standards · Students understand that:

1. The volume of a solid figure is a measure of how much space it encloses. A cube with side length 1 unit is said to contain “one cubic unit” of volume. The volume of a solid figure can be measured (expressed numerically) by the number of cubic units that fit inside it with no gaps or overlaps.
2. Packing a rectangular prism with unit cubes and decomposing the prism into layers shows that a rectangular

prism  $\ell$  units long by  $w$  units wide by  $h$  units tall contains a volume  $V = \ell \times w \times h$  cubic units. The base of the

prism has area  $A = \ell \times w$  square units, and the prism can be viewed as  $h$  layers, each containing  $\ell \times w$  cubic units,

so the volume of the prism can also be expressed as  $V = A \times h$  cubic units.

3. Volume is additive: If a solid figure is decomposed into several pieces, then the volume of the whole figure can be found by adding the volumes of the pieces (expressed in common units).
4. Quantities with like units can be added or subtracted giving a sum or difference with the same unit; quantities with unlike units can be multiplied or divided giving products or quotients with derived units.
5. The ratio of a length, area or amount to another length, area or amount is the same regardless of the size of the unit used for measurement.
6. The number line is a scale that can be used to show units such as pounds, liters, etc.

### Core Standards · Students can and do:

- a. Measure and compute whole-cubic-unit volumes for rectangular prisms and for objects well described as rectangular prisms.
- b. Convert among different-sized standard measurement units within a given measurement system (e.g. feet to yards, centimeters to meters) and use conversion to solve story problems.
- c. Form ratios of lengths, areas, and other quantities, including when quantities being compared are measured in different units.
- d. Solve word problems involving addition, subtraction, multiplication and/or division using quantities expressed as whole numbers, fractions, or decimals with measurement units.
- e. Solve multi-step problems involving units of weight, capacity, money, volume and area.

## Coordinate Geometry

### Core Standards · Students understand that:

1. A pair of perpendicular number lines (“axes”) defines a coordinate system. A given point in the plane has a separate position along each of the two axes; the two positions of the point are called its coordinates.
2. Graphs on coordinate axes can be used to make sense of relationships among quantities in complex problems.

### Core Standards · Students can and do:

- a. Graph points in the first quadrant the coordinate plane, and read off the coordinates of graphed points.<sup>47</sup>
- b. Determine the lengths of horizontal and vertical segments in the plane, given the coordinates of their endpoints.
- c. ♦ Collect data on continuous covarying quantities and display the data in a line graph with broken lines; distinguish bar graphs from line graphs; ask and answer questions from line graphs, including comparisons of ratios.

## Statistics

### Core Standards · Students understand that:

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<sup>47</sup> The axes should sometimes represent dimensioned quantities, and the units of measure should not always be the same for both axes. Coordinates may be whole numbers, fractions or decimals.

1. Data are collected purposefully to answer a predefined question (e.g., “How tall are the fifth graders in our school?”)
2. A set of data typically shows variability—not all of the values are the same—and yet the values also typically show some tendency to cluster. Identifying a “center” for a data set is a way to describe its many values using a single number.
3. The median is a measure of center in the sense that approximately half the data values are less than median, while approximately half are greater.
4. Variation in a data set can be measured by the range and by typical deviations from the center.

**Core Standards · Students can and do:**

- a. Collect data to answer a predefined question about a measurement quantity. Make a dot plot to display the data, and describe the data using the median and typical deviations from the it.

## Mathematics: Sixth Grade

### Developing Coherent Understanding

[Temporarily removed for editing.]

### Ratios and Proportional Relationships

#### Core Standards · Students understand that:

1. Multiplicative comparisons can be extended from whole numbers to fractions and decimals. When the ratio  $q/m$  is formed, or when  $q$  is  $r$  times as much as  $m$ , the numbers  $q$ ,  $r$  and  $m$  can be fractions or decimals.
2.  $p\%$  of a quantity means  $p/100$  times as much as the quantity. The number  $p$  can be a fraction or decimal, as in 3.75%.
3. A unit rate is the multiplicative factor relating the two quantities in a ratio. Two quantities  $q$  and  $m$  can be compared by  $q = r \times m$ , where the unit rate  $r$  tells how much  $q$  per  $m$ .
4. Given two quantities in a ratio (e.g. distance and time), finding the unit rate produces a new type of quantity (e.g. speed).

#### Core Standards · Students can and do:

- a. Solve for an unknown quantity in a problem involving two equal ratios.
- b. Find a percentage of a quantity; solve problems involving finding the whole given a part and the percentage.
- c. Solve unit rate problems including unit pricing and constant speed. (See table.)

$D = s \times T$	$D \div T = s$	$D \div s = T$
A car driving at a speed of 30 miles per hour for 6 hours travels a distance of 180 miles.	If a car drives 180 miles for 6 hours at a constant speed, that speed is 30 miles per hour.	When a car drives 180 miles at a speed of 30 miles per hour, the trip takes 6 hours.

- d. Represent unit rate problems on a coordinate plane where each axis represents one of the two quantities involved, and find unit rates from a graph. Explain what a point  $(x, y)$  means in terms of the situation, with special attention to the points  $(0, 0)$  and  $(1, r)$  where  $r$  is the unit rate.

### The Number System

#### Core Standards · Students understand that:

1. The Properties of Arithmetic govern operations on all numbers.
2. Division of fractions follows the “invert and multiply” rule because multiplication and division are inverse operations. For example,  $(2/3) \div (5/7) = 14/15$  because  $(14/15) \times (5/7) = 2/3$ .
3. Every nonzero fraction has a unique multiplicative inverse,<sup>48</sup> namely its reciprocal. Division can be defined as “multiplying by the multiplicative inverse.” Then  $(2/3) \div (5/7) = 14/15$  because the division symbol indicates multiplication by the multiplicative inverse.
4. A two-sided number line can be created by reflecting the fractions across zero. Numbers located to the left of zero on the number line are called negative numbers and are labeled with a negative sign.

<sup>48</sup> Glossary: Multiplicative inverses. Two numbers whose product is 1 are multiplicative inverses of one another. Example:  $3/4$  and  $4/3$  are multiplicative inverses of one another because  $3/4 \times 4/3 = 4/3 \times 3/4 = 1$ .

- Two different numbers, such as 7 and  $-7$ , that are equidistant from zero are said to be opposites of one another. The opposite of 7 is  $-7$  and the opposite of  $-7$  is 7. The opposite of the opposite of a number is the number itself. The opposite of 0 is 0. The operation of attaching a negative sign to a number can be interpreted as reflecting the number across zero on the number line.
- The absolute value of a number is its distance from zero on the number line. For any positive number  $q$ , there are two numbers whose absolute value is  $q$ , namely  $q$  and  $-q$ .
- The absolute value of a signed quantity (e.g. account balance, elevation) tells the size of the quantity irrespective of its sense (debit or credit; above or below sea level).
- Comparison of numbers can be extended to the full number system. The statement  $p > q$  means that  $p$  is located to the right of  $q$  on the number line, while  $p < q$  means that  $p$  is located to the left of  $q$  on the number line. The statement  $p > q$  does not mean  $|p| > |q|$ .

#### Core Standards · Students can and do:

- Divide fractions, and divide finite decimals by expressing them as fractions.
- Solve problems requiring arithmetic with fractions presented in various forms, converting between forms as appropriate and estimating to check reasonableness of answers.
- Find and position rational numbers<sup>49</sup> on the number line.
- Use rational numbers to describe quantities such as elevation, temperature,<sup>50</sup> account balance and so on. Compare these quantities using  $>$  and  $<$  symbols and also in terms of absolute value.
- Graph points and identify coordinates of points on the Cartesian coordinate plane in all four quadrants.

### Statistics

#### Core Standards · Students understand that:

- The mean is a measure of center in the sense that it is the balance point; the mean is the value each data point would take on if the total value of all the data points were redistributed fairly.
- When the mean and median of a data set differ substantially, both measures should be provided, and the difference explained in terms of the data values.

#### Core Standards · Students can and do:

- Collect data to answer a predefined question about a measurement quantity. Make a dot plot to display the data, and describe the data using measures of center and measures of variation.<sup>51</sup>

### Geometry

#### Core Standards · Students understand that:

- Triangles and parallelograms can be dissected and reassembled into rectangles with the same area; this leads to a formula for area in terms of base and height.
- Polygons can be dissected into triangles in order to find their area.

#### Core Standards · Students can and do:

<sup>49</sup> Glossary: Rational number. A number expressible in the form  $a/b$  for integers  $a$  and  $b \neq 0$ . The rational numbers include positive and negative integers, positive and negative fractions, and 0.

<sup>50</sup> A caution for temperature problems: The rational numbers are not a good model for a temperature scale. There is no temperature that solves the equation  $T + 1000^\circ\text{C} = 0$ .

<sup>51</sup> Data sets should include fractional values at this grade but not negative values.

- a. Find the area of right triangles, other triangles, special quadrilaterals, and polygons (by dissection into triangles and other shapes).
- b. Find surface area of cubes, prisms and pyramids (include the use of nets to represent these figures).
- c. Solve problems involving area, volume and surface area of objects.
- d. Examine the relationship between volume and surface area. Exhibit rectangular prisms with the same surface area and different volume, and with the same volume and different surface area.
- e. Use exponents and symbols for square roots and cube roots to express the area of a square and volume of a cube in terms of the side length, and to express the side length in terms of the area or volume.

## Expressions and Equations

### Core Standards · Students understand that:

1. A number that is the result of a sequence of operations with other numbers can be expressed in different ways using conventions about order of operations and parentheses, rules for working with fractions, and the Properties of Arithmetic. All such expressions are equivalent.
2. A letter is used to stand for a number in an expression in cases where one doesn't know what the number is, or where, for the purpose at hand, it can be any number in the domain of interest. Such a letter is called a variable.
3. An equation is a statement that two expressions are equal, and a solution to an equation is a value of the variable (or a set of values for each variable if there is more than one variable) that makes the equation true.

### Core Standards · Students can and do:

- a. Represent an unknown number using a letter in simple expressions such as  $y + 2$ ,  $y - 3$ ,  $6 + y$ ,  $5 - y$ ,  $3y$ ,  $y/2$ , and  $(3 \pm y)/5$ .
- b. Interpret  $3y$  as  $y + y + y$  or  $3 \times y$ ,  $y/2$  as  $y \div 2$  or  $1/2 \times y$ ,  $(3 \pm y)/5$  as  $(3 \pm y) \div 5$  or  $1/5 \times (3 \pm y)$ .<sup>52</sup>
- c. Evaluate simple expressions when values for the variables in them are specified (exclude expressions with a variable in denominator).
- d. Choose variables to represent quantities in a word problem and construct simple equations to solve the problem by reasoning about the quantities.
- e. Solve equations of the form  $x + p = q$  (for  $p < q$ ) and  $px = q$  where  $p$  and  $q$  are fractions.

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<sup>52</sup> From Singapore Secondary 1

## Mathematics: Seventh Grade

### Developing Coherent Understanding

[Temporarily removed for editing.]

### Ratios and Proportional Relationships

#### Core Standards · Students understand that:

1. Two variable quantities  $x$  and  $y$  are said to be proportional to one another if the ratio  $x/y$  is always equal to the same quantity  $k$ , so that  $y = kx$ . The constant  $k$  is the unit rate, and tells how much of  $y$  per unit of  $x$ .

#### Core Standards · Students can and do:

- a. Compare proportional relationships represented in different ways (e.g. compare a graph to an equation to determine which of two objects has greater speed).
- b. Decide whether two quantities that vary together have a proportional relationship, analyze proportional relationships using the unit rates that characterize them, and solve word problems involving proportional relationships.
- c. Plot pairs  $(x, y)$  from a proportional relationship  $y = kx$ , and pass a straight line through them and the origin. Observe that increases in  $y$  are proportional to increases in  $x$ , and calculate  $[\text{increase in } y]/[\text{increase in } x] = k$ .

### The Number System

#### Core Standards · Students understand that:

1. On the number line, the sum  $p + q$  is defined to be the number lying distance  $|q|$  from  $p$ , to the right of  $p$  if  $q$  is positive and to the left of  $p$  if  $q$  is negative. A number and its opposite are additive inverses (add to zero).<sup>53</sup>
2. Sums of signed numbers can be computed using the Properties of Arithmetic.<sup>54</sup>
3. The additive inverse of a sum is the sum of the additive inverses.<sup>55</sup>
4. Subtraction is defined as adding the additive inverse. This definition of subtraction allows subtraction of rational numbers and agrees with previous understandings of subtraction with positive numbers.<sup>56</sup> On the number line, the difference  $p - q$  lies distance  $|q|$  from  $p$ , to the left of  $p$  if  $q$  is positive and to the right of  $p$  if  $q$  is negative.
5. The absolute value of  $p - q$  equals the distance between  $p$  and  $q$  on the number line.
6. Products of signed numbers can be computed using the Properties of Arithmetic.<sup>57</sup> In particular, multiplying a number by  $-1$  produces its additive inverse.<sup>58</sup>

<sup>53</sup> Glossary: Additive inverses. Two numbers whose sum is 0 are additive inverses of one another. Example:  $3/4$  and  $-3/4$  are additive inverses of one another because  $3/4 + (-3/4) = (-3/4) + 3/4 = 0$ .

<sup>54</sup> For example,  $7 + (-3) = 4$  because  $7 + (-3) = (4 + 3) + (-3) = 4 + [3 + (-3)] = 4 + [0] = 4$ . And  $(-2) + (-3) = -5$  because  $5 + [(-2) + (-3)] = (2 + 3) + [(-2) + (-3)] = [2 + (-2)] + [3 + (-3)] = [0] + [0] = 0$  so  $(-2) + (-3)$  is the additive inverse of 5, that is  $-5$ .

<sup>55</sup> For example,  $-(6 + -2) = (-6) + 2$  because  $[6 + (-2)] + [(-6) + 2] = [6 + (-6)] + [(-2) + 2] = [0] + [0] = 0$ .

<sup>56</sup> For example, the subtraction  $7 - 3$  means 7 plus the additive inverse of 3, i.e.  $7 + (-3)$ , which equals 4. The subtraction  $9 - (-4)$  means 9 plus the additive inverse of  $-4$ , i.e.  $9 + 4$ , which equals 13.

<sup>57</sup> For example,  $(-1) \times (-1) = 1$  because  $(-1) + (-1) \times (-1) = 1 \times (-1) + (-1) \times (-1) = [1 + (-1)] \times (-1) = 0 \times (-1) = 0$ .

<sup>58</sup> Because  $(-1) \times a + a = (-1) \times a + (1) \times a = [(-1) + (1)] \times a = 0 \times a = 0$ .

- Every nonzero rational number has a multiplicative inverse. Division of rational numbers is defined as multiplying by the multiplicative inverse.
- The operation of adding the rational number  $q$  to points on the number line is a translation; it shifts points to the right if  $q > 0$ , to the left if  $q < 0$ , and not at all if  $q = 0$ . The operation of adding  $-q$  undoes the operation of adding  $q$ .
- The operation of multiplying points on the number line by a positive rational number  $k$  is a dilation; it scales points further away from zero if  $k > 1$ , closer to zero if  $k < 1$ , and not at all if  $k = 1$ . The operation of multiplying by  $1/k$  undoes the operation of multiplying by  $k$ .

**Core Standards · Students can and do:**

- Explore and explain with number lines the rules for adding rational numbers, e.g.,  $r + s = s + r$ ;  $r + (-s) = r - s$ ;  $p - (q + r) = p - q - r$ .
- Use the rules of arithmetic to explore and explain with specific numbers the rules for multiplying rational numbers, e.g.,  $4 \times -5$  is  $-5$  added to itself 4 times, so equal to  $-20$ ;  $-3 \times (-2 + 2) = -3 \times 0 = 0$ , so  $-3 \times -2 = -(-3) \times 2 = -(-6) = 6$ .
- Add and subtract rational numbers, and use these operations to solve word problems (including signed quantities such as elevation, temperature, account balance, and so on).
- Multiply and divide rational numbers, and use these operations to solve word problems (including signed quantities).

**Expressions and Equations**

**Core Standards · Students understand that:**

- Expressing a quantity in different forms serves a purpose in analyzing quantitative situations.
- The distributive property can be used in two directions, both to expand linear expressions, and to factor a sum of terms with a common factor.

**Core Standards · Students can and do:**

- Construct algebraic expressions for simple real-world situations and generate equivalent expressions to interpret their meaning (e.g.,  $P + 0.05P = 1.05P$  means that “increase by 5%” is the same as “multiply by 1.05”).
- Generate equivalent expressions from a given expression, including putting linear expressions in standard form and taking out a common factor. Include expressions involving negative numbers and exponents 2 and 3.
- Solve multi-step word problems that lead to equations of the form  $px + q = r$  and  $p(x + q) = r$ , where  $p$ ,  $q$ , and  $r$  are rational numbers, by undoing the operations involved in producing the expression on the left, using additive and multiplicative inverses.
- Solve simple absolute value equations of the form  $|x + h| = j$  and  $|x - h| = j$ , where  $h$  and  $j$  are integers.
- Read the structure in a numerical expression at a level necessary to enter it into a calculator or spreadsheet, making use of parentheses and the conventions on order of operations.

**Statistics**

**Core Standards · Students understand that:**

- In addition to measurement variability, another source of variation in data is randomness.

**Core Standards · Students can and do:**

- a. Collect experimental or simulation data from repeated random trials. Make a histogram showing absolute frequencies and a bar graph of relative frequencies. Discuss the patterns and make predictions for further experiments or simulations.

## Probability

### Core Standards · Students understand that:

1. Chance events fall along a spectrum: nearly impossible | unlikely | neither likely nor unlikely | likely | nearly certain.
2. Probability is a quantitative measure of likelihood. Probabilities are numbers lying between 0 and 1, with 0 representing impossible and 1 representing certain (in the case of a finite sample space).
3. The experimental probability of a specified outcome is the observed fraction of the outcome in a data set collected from a process involving randomness or chance.
4. In a random process, the individual outcomes are unpredictable, but patterns may emerge after repeated trials. Experimental probabilities in random experiments tend to approach stable values as more and more data is generated.
5. In a theoretical probability model, the set of distinct possible outcomes for a random experiment is called the sample space. An event is a set of sample points; a sample point may belong to several events. A specified event occurs in some fraction of the sample space. This fraction is called the theoretical probability of the event.
6. When computing theoretical probabilities, all members of the sample space are assumed equally probable. Theoretical probabilities will not match long-run experimental probabilities if this assumption is inappropriate (e.g., as in the case of a loaded die).

### Core Standards · Students can and do:

- a. Compute experimental probabilities from data sets, including data sets generated by simulations or sampling experiments.
- b. Compute experimental probabilities to estimate theoretical probabilities when no theoretical probability model is apparent.
- c. Represent sample spaces for one-stage random experiments; identify members of the sample space in which specified events occur.
- d. Use a theoretical probability model to compute theoretical probabilities for one-stage random experiments, expressing theoretical probabilities as fractions, decimals and percents.
- e. Compare experimental probabilities to theoretical probabilities for one-stage random experiments, examining and if feasible revising the assumptions of the theoretical model when the two conflict.

## Geometry

### Core Standards · Students understand that:

1. Two polygons are congruent<sup>59</sup> if and only if there is a correspondence between vertices so that the corresponding sides are equal and the corresponding angles are equal.
2. A plane or solid figure is similar to another if the second can be obtained from the first by a similarity transformation.<sup>60</sup> All ratios of lengths in the second figure to corresponding lengths in the first figure are equal to the scale factor of the dilation.

<sup>59</sup> Glossary: Congruent. Two plane or solid figures are *congruent* if one can be obtained from the other by a sequence of rigid motions (rotations, reflections, and translations).

<sup>60</sup> Glossary: Similarity transformation. A rigid motion followed by a dilation. Glossary: Dilation. A transformation that moves each point along the ray through the point emanating from a fixed center, and multiplies distances from the center by a common scale factor.

3. Congruent figures have the same area or volume. A similarity transformation with a scale factor of  $k$  leaves angle measures unchanged, changes lengths by a factor of  $k$ , changes areas by a factor of  $k^2$ , and changes volumes by a factor of  $k^3$ .
4. Given a line in the coordinate plane not parallel to either axis, any two right triangles with legs parallel to the axes and hypotenuse on the given line are similar, and so the slope of the line (rise over run) is the same regardless of which two distinct points are used to compute it.

**Core Standards- Students can & do:**

- a. Solve problems involving similar triangles and scale drawings (including computing actual lengths, areas and volumes from a scale drawing and reproducing a scale drawing at a different scale).
- b. Explore using hands-on activities the area of non-rectangular figures and the perimeter of curvilinear figures, and the fact that a dilation of the plane changes areas by the square of the scale factor.<sup>61</sup>
- c. Use scale factors to find lengths and areas of similar figures, including an informal derivation of the formulas relating the area, radius and circumference of a circle.
- d. Give an explanation of why the volume of a cylinder is the area of the base times the height, using informal arguments involving slices.
- e. Use coordinate grids to transform figures and to predict the effect of dilations, translations, rotations and reflections.
- f. Use two-dimensional representations of three-dimensional objects (schematics, assembly instructions, perspective drawings and multiple views) to solve problems.
- g. Explore three-dimensional figures formed by translations and rotations of plane figures through space.
- h. Sketch and describe cross-sections of cones, cylinders, pyramids and prisms.

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<sup>61</sup> Include using grids of squares with fractional side lengths to estimate area, and measuring the length of strings wrapped around the perimeter.

## Mathematics: Eighth Grade

### Developing Coherent Understanding

[Temporarily removed for editing.]

### Functions and the Situations They Model

#### Core Standards · Students understand that:

1. A function is a rule, often defined by an expression, that states a relationship between the values of two variable quantities.
2. A linear function models a situation where the change in one quantity is proportional to the corresponding change in the other quantity. The constant of proportionality,  $m$ , is the rate of change of the function. If  $x$  is the input and  $y$  is the output then the function is defined by  $y = mx + b$  for some constant  $b$ , which is called the initial value of the function (the value of the function when  $x$  is 0).
3. The graph of a linear function  $y = mx + b$  is a straight line, and the slope of the line is the function's rate of change.
4. The problem of finding where two linear functions have the same output value for a common input value leads to an equation in one variable; the solution or solutions (if any) can be visualized as the input value(s) where the graphs of the functions intersect.
5. A linear equation in one variable can be solved by successively transforming it into simpler equations with the same solutions using the Properties of Arithmetic and the Properties of Equality, until an equation of the form  $x = a$ ,  $a = a$ , or  $a = b$  results (where  $a$  and  $b$  are different numbers).

#### Core Standards · Students can and do:

- a. Compare features of two or more functions that may be presented in different representations (as formulas, graphs, tables of values, or verbally).
- b. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship; from two  $(x, y)$  values (including reading these from a table); or from a graph.
- c. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
- d. Solve linear equations with rational number coefficients, including equations that require expanding expressions using the distributive law and collecting like terms.

### The Number System

#### Core Standards · Students understand that:

1. The number line has numbers that are not rational, such as  $2\pi$  or  $2 + \sqrt{3}$ , called irrational numbers.
2. An irrational number can be approximated to arbitrary precision by rational numbers.
3. If  $n > 0$  is an integer and  $\sqrt{n}$  is not an integer, then  $\sqrt{n}$  is irrational. If  $q$  is rational and  $r$  is irrational, then  $q + r$  is irrational, and so is  $qr$  provided  $q \neq 0$ .

#### Core Standards · Students can and do:

- a. Use rational approximations to compare the size of irrational numbers, locate them approximately on a number line and estimate the value of expressions (e.g.  $\pi^2$ ).

## Geometry

### Core Standards · Students understand that:

1. Angle measures formed by a configuration of lines in a plane can often be deduced from other angle measures (e.g., vertically opposite angles, angles produced when a transversal line cuts two parallel lines).
2. The side lengths of a right triangle are related by the Pythagorean theorem.

### Core Standards · Students can and do:

- a. Explore and explain by hands-on activities facts about the angle sum of triangles, exterior angles, and alternate interior angles of parallel lines. Use these facts to determine the angle sum of interior angles of convex polygons, and the angle sum of exterior angles of convex polygons.<sup>62</sup>
- b. Explore and explain using hands-on activities: parallel lines in space, line perpendicular to a line through a given point, lines perpendicular to a plane, lines parallel to a plane, the plane passing through three given points, and the plane perpendicular to a given line at a given point.
- c. Use facts about angles to write and solve simple equations for an unknown angle in a figure.
- d. Explain a proof of the Pythagorean theorem.<sup>63</sup>
- e. Use the Pythagorean theorem to determine missing side lengths in right triangles and to solve problems in two and three dimensions.
- f. Use the Pythagorean theorem to find the distance between two points in a coordinate system.
- g. Draw (freehand, with ruler and protractor, and with technology) geometric shapes from given conditions. (Focus on constructing triangles from three measures of angles or sides, noticing when the triangle is uniquely defined, ambiguous, or impossible.)
- h. Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc): copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.
- i. Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

## Statistics

### Core Standards · Students understand that:

1. Scatterplots for bivariate continuous data may reveal patterns of association between two quantities. This kind of relationship between quantities is not a functional relationship—and yet, a function might be a valuable way to describe a statistical relationship.

### Core Standards · Students can and do:

- a. Construct and interpret scatterplots for bivariate measurement data.
- b. Describe patterns that appear in scatterplots, such as clustering, outliers, positive/negative association, linear association, nonlinear association.
- c. For scatterplots that suggest a linear association, model the relationship with a linear function using an informal fitting procedure. Use the model function to solve problems in the context of the data,

<sup>62</sup> Use physical models, transparencies, or dynamic geometry software to make rigid motions and give informal arguments, for example, arrange three copies of the same triangle so that the three angles form a line, and give an argument in terms of transversals why this is so.

<sup>63</sup> For example, by the method of right triangles in a square.

interpreting the slope/rate of change and intercept/initial value. Informally assess the goodness of the model by judging the closeness of the data points to the graph of the function.

## Probability

### Core Standards · Students understand that:

1. The framework for theoretical probability models is the same for compound events as for simple events: the theoretical probability is the fraction of the sample space in which the compound event occurs.

### Core Standards · Students can and do:

- a. Compute experimental probabilities from data sets, including data sets generated by simulations or repeated sampling experiments.
- b. Compute experimental probabilities to estimate theoretical probabilities of compound events when no theoretical probability model is apparent.
- c. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams; identify members of the sample space in which specified events occur.
- d. Compute theoretical probabilities for compound events by counting members of the sample space.
- e. Compare experimental probabilities to theoretical probabilities for multi-stage random experiments, examining the assumptions of the theoretical model when the two conflict.

## Mathematics: High School—Expressions

### A Coherent Understanding of Expressions

[Final draft of CCR narrative goes here.]

#### Seeing structure in expressions

##### Core Standards · Students understand that:

1. Different forms of expression for functions reveal different properties of the function; a purpose in transforming expressions is to find those properties.

For example, factoring a quadratic expression reveals the zeros of the function it defines, and putting the expression in vertex form reveals the maximum or minimum of the function; the expression  $1.15^t$  can be rewritten in the form  $(1.15^{1/12})^{12t} \approx 1.012^{12t}$  to reveal the approximate monthly interest rate if the annual rate is 15%.

2. The laws of exponents for whole number exponents follow from an understanding of exponents as indicating repeated multiplication, and from the associative property of multiplication.
3. The interpretation of zero, fractional and negative exponents follows from extending the laws of exponents to those values.

For example, since  $(x^{1/3})^3 = x^{(1/3) \cdot 3} = x^1 = x$ ,  $x^{1/3}$  is the cube root of  $x$ .

4. Complex expressions can be interpreted by “chunking”: temporarily viewing a part of the expression as a single entity.

##### Core Standards · Students can and do:

- a. Factor, expand, and complete the square in quadratic expressions.
- b. Use chunking to see expressions in different ways that suggest ways of rewriting them.

For example, see  $x^4 - y^4$  as  $(x^2)^2 - (y^2)^2$ , thus recognizing it as a difference of squares that can be factored as  $(x^2 - y^2)(x^2 + y^2)$ .

- c. Rewrite expressions using the laws of exponents.

For example  $(x^{1/2})^3 = x^{3/2}$  and  $1/x = x^{-1}$ .

- d. Use the laws of exponents to interpret expressions for exponential functions, recognizing fractional exponents as indicating roots of the base and negative exponents as indicating the reciprocal of a power.

For example, identify the relative rate of change in functions such as  $y = (1.02)^t$ ,  $y = (0.97)^t$ ,  $y = (1.2)^{10t}$ ,  $y = (1.01)^{t/12}$ , and recognize that any non-zero number raised to the 0 power is 1 (for example,  $12(1.05)^0 = 12$ ). Avoid common errors such as confusing as  $6(1.05)^t$  with  $(6 \cdot 1.05)^t$  and  $5(0.03)^t$  with  $5(1.03)^t$ .

- e. Given an expression for an exponential function, identify whether it represents exponential growth or decay.
- f. Using a method such as the factorization  $(x^n - 1) = (x - 1)(x^{n-1} + \dots + 1)$  where  $n$  is a whole number, prove the formula for the sum of a geometric series, and use the formula to solve problems.

Include problems involving compound interest and mortgage payments.

#### The arithmetic of polynomials and rational functions

##### Core Standards · Students understand that:

1. Polynomials form a system analogous to the integers, closed under the operations of addition, subtraction, and multiplication.

2. A polynomial of degree  $n$  has  $n$  complex roots, where roots are counted according to multiplicity.
3. For a polynomial  $p(x)$ ,  $p(a) = 0$  if and only if  $(x - a)$  is a factor of  $p(x)$ .
4. The Binomial Theorem gives the expansion of  $(x + a)^n$  in powers of  $x$  for a whole number  $n$  and a real number  $a$ , with coefficients determined for example by Pascal's triangle. The Binomial Theorem can be proved by mathematical induction.
5. Rational functions are fractions whose numerator and denominator are polynomials, and the rational functions are closed under the operation of division by a nonzero rational function.

**Core Standards - Students can and do:**

- a. Add, subtract and multiply polynomials.
- b. Identify zeros of polynomials when suitable factorizations are available, and graph polynomials.
- c. Transform simple rational functions using the Properties of Arithmetic and the rules for operations on fractions.
- d. Identify zeros and asymptotes of rational functions, when suitable factorizations are available, and graph rational functions.
- e. Divide polynomials by monomials

## Mathematics: High School—Equations

### A Coherent Understanding of Equations

[Final draft of CCR narrative goes here.]

#### Building equations to model relations between quantities

##### Core Standards · Students understand that:

1. Choosing a unit for a general quantity (e.g. length) establishes a correspondence between specific instances of the quantity (e.g. lengths of specific objects) and numbers called coordinates.
2. A relation between two quantities can be represented by an equation in variables representing coordinates for the quantities; by a graph on a pair of axes marked with units for the quantities; and by a table of coordinate pairs from the relation. The graph and the table show pairs that are solutions to the equation.

##### Core Standards · Students can and do:

- a. Build equations to express relations between quantities and solve problems.  
Include equations arising from situations involving linear, quadratic, simple rational, and exponential functions.
- b. Rearrange formulas to isolate a quantity of interest.
- c. Build systems of equations and solve problems involving systems of equations.

#### Reasoning with equations and inequalities

##### Core Standards · Students understand that:

1. To solve an equation algebraically, one assumes it is true and deduces the solutions, often in steps that replace it with a simpler equation whose solutions include the solutions of the original one.
2. Adding a number to both sides of an equation, or multiplying both sides by a nonzero number, leads to an equation that has exactly the same solutions as the original.
3. If the product of two numbers is zero, then at least one equals zero, and conversely. This principle is the basis for solving equations by factoring.
4. Multiplying both sides of an equation by an expression that can be zero for certain values of the variables in it, or squaring both sides of an equation, can lead to an equation that has more solutions than the original. Evaluating these in the original equation eliminates extraneous solutions.
5. The method of completing the square can transform any quadratic equation in  $x$  into an equivalent equation of the form  $(x - p)^2 = q$ . This leads to the quadratic formula.
6. Equations not solvable in one number system may have solutions in a larger number system.
7. Equations of the form  $f(x) = g(x)$  can be solved graphically by finding the intersections (if any) of the graphs of  $f(x)$  and  $g(x)$ .
8. The relationship between a function  $f$  and its inverse (if it has one) can be used to solve equations of the form  $f(x) = c$ . For example, a logarithmic function can help solve exponential equations, and an inverse trigonometric function can help solve trigonometric equations.
9. Given a system of linear equations, adding a multiple of one equation to another produces a system with the same solutions. This principle, combined with principles already encountered with equations in one variable, allows for the simplification of systems.

10. The solutions to an equation in two variables form a graph—a set of points, often a curve or a line, in the coordinate plane.
11. The solutions to two equations in two variables (if any) can be visualized as the points of intersection of their graphs, because those points satisfy both equations simultaneously.
12. The solution to a system of inequalities in two variables can be visualized as the intersection of the regions in the plane defined by the inequalities.

**Core Standards · Students can and do:**

- a. Solve simple rational and radical equations, noting and explaining extraneous solutions.
- b. Solve quadratic equations over the real numbers by completing the square, using the quadratic formula and factoring.
- c. Solve linear inequalities in one variable and graph the solution set on a number line.  
  
Emphasize solving the associated equality and determining on which side of the solution of the associated equation the solutions to the inequality lie.
- d. Solve linear systems of equations algebraically, focusing on pairs of linear equations in two variables.
- e. Graph a system of two linear or quadratic equations in two unknowns and estimate the solution from a graph.
- f. Graph the solution set of a linear inequality in two variables.
- g. Use the properties of logarithms to solve equations involving exponential functions.
- h. Use inverse trigonometric functions to solve equations of the form  $A\sin(Bx + C) = D$ .
- i. Find complex roots of quadratic equations.
- j. Solve a system of two quadratic equations in two unknowns.

## Mathematics: High School—Functions

### A Coherent Understanding of Functions

[Final draft of CCR narrative goes here.]

#### Interpreting functions

##### Core Standards - Students understand that:

1. The domain of a function is the set of its inputs, and the range is the set of its outputs.
2. Function notation uses a letter to stand for a function. If  $f$  is a function and  $x$  is a number in its domain, then  $f(x)$  indicates the output of  $f$  corresponding to the input  $x$ .
3. Functions can be described by key characteristics, including: zeros; vertical intercept; extreme points; average rates of change (over intervals); intervals of increasing, decreasing and/or constant behavior; and end behavior.
4. Linear, quadratic and exponential functions are defined by expressions that have forms specific to each type, in which the parameters can often be interpreted in terms of characteristics of the graph.
5. An equation in two variables implicitly expresses one variable as a function of the other if there are no points on the graph having the same value of the first variable but different values of the second.
6. When  $x$  is a power of ten, the common logarithm  $\log(x)$  tells the exponent. When  $x$  lies between  $10^n$  and  $10^{n+1}$ ,  $\log(x)$  lies between  $n$  and  $n+1$ .

##### Core Standards - Students can and do:

- a. Describe qualitatively the functional relationship between two quantities by reading a graph; e.g., where the function is increasing or decreasing, what its long run behavior appears to be, and whether it appears to be periodic.
- b. Sketch a graph that exhibits the qualitative features of a function that has been described verbally.
- c. Compare values and properties of two functions represented in different ways (algebraically, graphically, numerically in tables, or by verbal descriptions).
- d. Relate the domain and range of a function to its graph and, where applicable, to the quantitative relationship it describes.
- e. Describe the qualitative behavior of common types of functions using graphs and tables.

Identify: intercepts; intervals where the function is increasing, decreasing, positive or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. Use technology to explore the effects of parameter changes on the graphs of linear, power, quadratic, square root and cube root, polynomial, simple rational, exponential, logarithmic, sine and cosine, absolute value and step functions.

- f. Interpret the parameters in the general expressions for linear, quadratic, and exponential functions, and draw conclusions about the parameters by inspection of the graph.
- g. Given a function  $f$ , and given a constant  $c$ , evaluate  $f(c)$  if possible and find solutions to  $f(x) = c$  (if they exist). Where appropriate, relate the possibility of evaluation to the domain and the existence or nonexistence of solutions to the range.

#### Building functions

##### Core Standards - Students understand that:

1. Varying a parameter in the general expression for a linear, quadratic or exponential function can (often) be interpreted as performing a geometric transformation on the graph. This can be used to adjust a function to model a particular situation.

2. Composing a function  $f$  with a function  $g$  creates a new function called the composite function—for an input number  $x$ , the output of the composite function is  $f(g(x))$ .
3. The inverse of a function “undoes” what the function does; that is, composing the function with its inverse in either order returns the original input.
4. Sequences are functions whose domain is the whole numbers, and they can be defined recursively as well as explicitly. Arithmetic sequences are linear functions and geometric sequences are exponential functions.

### Core Standards · Students can and do:

- a. Make graphs of linear, quadratic, cubic, absolute value and exponential functions, and, given the graph of one of these types, identify the type.
- b. Sketch graphs of quadratic functions presented in the form  $y = ax^2 + bx + c$ ,  $y = a(x-h)^2 + k$  and  $y = a(x-p)(x-q)$  (without plotting points).
- c. Solve problems involving quadratic functions, such as analyzing projectile motion and maximizing profit.
- d. Identify the effect on the graph of replacing  $f(x)$  by  $f(x) + k$ ,  $kf(x)$ ,  $f(kx)$ , and  $f(x + k)$ . Include both positive and negative  $k$ ; find the value of  $k$  given the graphs.
- e. Write an expression of the form  $a(1+r)^t$  or  $ab^t$  for an exponential function to express a constant percent growth rate or a constant growth factor.
- f. Evaluate composite functions and compose functions symbolically in simple cases (e.g. one or both functions linear).
- g. Read values of an inverse function from a graph or a table, given that the function has an inverse.
- h. For linear or simple exponential functions, find a formula for an inverse function by solving an equation.
- i. For linear functions or simple exponential functions, verify symbolically by composition that one function is the inverse of another.
- j. Write arithmetic and geometric sequences both recursively and in closed form, and translate between the two forms.

## Linear vs. exponential behavior

### Core Standards · Students understand that:

1. Linear functions grow by equal differences in equal time periods; exponential functions grow by equal factors in equal time periods.
2. The rate of change of a linear function is constant; the rate of change of an exponential function is proportional to the value of the function.
3. Exponential growth eventually outstrips polynomial growth (including, in particular, linear growth).

### Students can and do:

- a. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.
- b. Interpret absolute and relative rates of change and use them to make predictions.
- c. Identify the initial value and growth or decay rate from a table or graph of an exponential function.
- d. Calculate and interpret the growth factor for an exponential function (presented symbolically or as a table) given a fixed time interval. Estimate the growth factor from a graph.
- e. Recognize a quantitative relationship as linear or exponential from description of a situation.

## Trigonometric functions

### Core Standards · Students understand that:

1. The unit circle in the coordinate plane enables one to extend the domains of the sine, cosine and tangent functions of right-triangle trigonometry to the real numbers.
2. Trigonometric functions are periodic by definition, and sums and products of these functions are periodic.
3. Restricting trigonometric functions to a domain on which they are always increasing or always decreasing allows for the construction of an inverse function.

**Core Standards - Students can and do:**

- a. Use radian measure and revisit graphs of trigonometric functions in terms of radians.
- b. Use the unit circle to determine geometrically the values of sine, cosine, tangent for multiples of  $\pi/4$  and  $\pi/3$ ; commit sines and cosines of principal angles to memory.
- c. Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.
- d. Solve simple trigonometric equations formally using inverse trigonometric functions;<sup>64</sup> evaluate solutions using technology.
- e. Explain relationships between the identity  $\sin^2 x + \cos^2 x = 1$ , the equation of a circle, and the Pythagorean theorem.
- f. Explain proofs of the sine and cosine addition and subtraction formulas.
- g. Use trigonometric identities to simplify expressions.
- h. Use trigonometric functions to solve problems in science, economics or other fields where periodic phenomena occur.

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<sup>64</sup> Solving trigonometric equations by means of the quadratic formula is optional.

## Mathematics: High School—Coordinates

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### A Coherent Understanding of Coordinates.

[Final draft of CCR narrative goes here.]

#### Expressing geometric properties with equations

##### Core Standards · Students understand that:

1. The graph of a linear equation is the straight line through any two of its solutions. Conversely, any line is the set of solutions to some linear equation.
2. Two lines with well-defined slopes are parallel if their slopes are equal and perpendicular if their slopes multiply to  $-1$ .
3. The equation of a circle can be found using its definition and the Pythagorean theorem.
4. Transforming the graph of an equation by reflecting in the axes, translating parallel to the axes, or applying a dilation to one of the axes correspond to substitutions in the equation.

For example, reflection in the  $y$  axis corresponds to  $(x,y) \rightarrow (-x,y)$ , translation vertically down by three units corresponds to  $(x,y) \rightarrow (x,y+3)$ , and dilating by a factor of 2 parallel to the  $x$ -axis corresponds to  $(x,y) \rightarrow (x/2,y)$ .

5. An ellipse is obtained by stretching a circle, leading to an equation of the form  $x^2/a^2 + y^2/b^2 = 1$ .
6. The formula  $A = \pi ab$  for the area of an ellipse can be derived from the formula for the area of a circle.

##### Core Standards · Students can and do:

- a. Write the equation of a line in point-slope form, slope-intercept form, or standard form.
- b. Identify parallel and perpendicular lines in a coordinate plane, and use the relationship between slopes of parallel and perpendicular lines to solve problems. Know the equations of vertical and horizontal lines.
- c. Find the point on the segment between two given points that divides the segment in a given ratio.
- d. Complete the square to find the center and radius of a circle given by an equation.
- e. Find an equation for an ellipse given the lengths of its major and minor axes; calculate the area of an ellipse.
- f. Use coordinates to solve geometric problems.

Include proving simple geometric theorems algebraically, using coordinates to compute perimeters and areas for triangles and rectangles, finding midpoints of line segments, finding distances between pairs of points and determining when two lines are parallel or perpendicular.

#### Vectors and matrices<sup>65</sup>

##### Core Standards · Students understand that:

1. Vectors are quantities having both magnitude and direction. They are typically represented by directed line segments.
2. On a coordinate plane, vectors are determined by the coordinates of their initial and terminal points or by their  $x$ - and  $y$ -components.

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<sup>65</sup> Limit to vectors in the plane and 2x2 matrices.

3. Vectors can be added end-to-end, component-wise, or by the parallelogram rule. The length of the sum of two vectors is typically not the sum of the lengths.
4. Translations of the plane can be represented by vectors.
5. Vectors are often used to describe “directed quantities” in physics, such as position, velocity, acceleration and force. Vector addition is used to find resultant forces or compute displacements.
6. Multiplying a  $2 \times 2$  matrix into a vector produces another vector. This can be viewed as a transformation of the plane.
7. A system of two linear equations in two variables can be represented as a single matrix equation in a vector variable.
8. Matrices can be added, subtracted and multiplied.
9. The zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a  $2 \times 2$  matrix determines whether it has a multiplicative inverse.

#### Core Standards · Students can and do:

- a. Represent vectors graphically.
- b. Perform basic vector operations (addition, subtraction, scalar multiplication) both graphically and algebraically.
- c. Use vectors to model and solve problems.
- d. Use trigonometry to decompose a vector into perpendicular components.
- e. Add, subtract and multiply matrices.
- f. Represent systems of equations as matrix equations.
- g. Find the inverse of a matrix if it exists and use it to solve equations.

### Complex Numbers

#### Core Standards · Students understand that:

1. To solve quadratic equations that have no solutions in the real numbers, the number system can be extended to include the square roots of  $-1$ , creating a closed number system called the complex numbers.
2. The Properties of Arithmetic and the relation  $i^2 = -1$  can be used to perform operations on complex numbers.
3. All polynomials can be factored over the complex numbers, e.g. as in  $x^2 + 4 = (x + 2i)(x - 2i)$ .
4. Complex numbers can be visualized on the complex plane. Real numbers fall on the horizontal (real) axis, and imaginary numbers fall on the vertical axis.
5. On the complex plane, arithmetic of complex numbers can be interpreted geometrically: addition is analogous to vector addition, and multiplication can be understood as rotation and dilation about the origin. Complex conjugation is reflection across the real axis.
6. The absolute value (or modulus) of a complex number is defined as its distance from the origin in the complex plane. On the complex plane, as on the real line, the distance between numbers is the absolute value of the difference, and the midpoint of a segment is the average of the numbers at its endpoints.
7. Euler’s formula  $e^{i\theta} = \cos\theta + i \sin\theta$  links complex numbers to trigonometry.

#### Core Standards · Students can and do:

- a. Add, subtract and multiply complex numbers.
- b. Find the conjugate of complex number and use it to find absolute values and divide complex numbers.
- c. Graph complex numbers in both rectangular and polar form and interpret arithmetic of complex numbers geometrically.

- d. Solve quadratic equations over the complex numbers.
- e. Convert complex numbers between rectangular and polar form.
- f. Re-derive trigonometric identities using complex methods.

## Mathematics: High School—Modeling

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### A Coherent Understanding of Modeling.

Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

A model can be very simple, such as a geometric shape to describe a physical object like a coin. Even so simple a model involves making choices. It is up to us whether to model the solid nature of the coin with a three-dimensional cylinder, or whether a two-dimensional disk works well enough for our purposes. For some purposes, we might even choose to adjust the right circular cylinder to model more closely the way the coin deviates from the cylinder.

In any given situation, the model we devise depends on a number of factors: How precise an answer do we want or need? What aspects of the situation do we most need to understand, control, or optimize? What resources of time and tools do we have? The range of models we can create and analyze is constrained as well by the limitations of our mathematical and technical skills. For example, modeling a physical object, a delivery route, a production schedule, or a comparison of loan amortizations each requires different sets of tools. Networks, spreadsheets and algebra are powerful tools for understanding and solving problems drawn from different types of real-world situations. One of the insights provided by mathematical modeling is that essentially the same mathematical structure might model seemingly different situations.

The basic modeling cycle is one of (1) identifying the key features of a situation, (2) creating geometric, algebraic or statistical objects that describe key features of the situation, (3) analyzing and performing operations on these objects to draw conclusions and (4) interpreting the results of the mathematics in terms of the original situation. Choices and assumptions are present throughout this cycle.

### The modeling cycle and general tools

#### Core Standards · Students understand that:

1. The behavior of quantities in physical, economic, public policy, social and everyday situations can be modeled using mathematics. Mathematics is used to model relationships among quantities, constraints and objectives.
2. Models are formulated to answer questions about the world based on an analysis of the situation and a conceptual model that involves assumptions and choices.
3. Quantities in the situation are represented by variables in the model, usually through measurement. Modeling includes decisions about what to measure and how, and how well the measurements work for the purpose.
4. Mathematical knowledge and skill are required in order to get results from a mathematical model—even to devise a model in the first place. Areas of mathematics commonly used in modeling include linear, quadratic, exponential or other functions; probability and statistics; and geometry (solid, plane and coordinate). In active modeling, fluency with math content is required in order to focus on the larger problem.
5. Technology is often required in order to obtain results from a model.
6. The results of a mathematical model must be evaluated against evidence and the phenomena at hand. If the mathematics is correct, then unreasonable results point to unreasonable assumptions and the need to revise the model.
7. Real-world problems do not announce that they are amenable to mathematical analysis and solution; bringing mathematics to bear on such a problem is a highly creative act.

#### Core Standards · Students can and do:

- a. Creatively apply the mathematics they know to situations in which it only imperfectly applies—and achieve useful results by doing so.

For example, independently choose to describe HIV transmission as a random event with a fixed probability per sexual encounter.

- b. Decide what measures are relevant to a problem.

For example, given the purpose at hand, is traffic safety best measured in terms of fatalities per year or fatalities per vehicle-mile? (or fatalities per 100 million vehicle-miles?)

- c. Use network diagrams or other techniques to visualize complex situations with many factors, causes or agents.

For example, what agents and factors are responsible for setting the price of gasoline? How do they interact?

- d. In situations with many factors, causes or agents, organize the factors/causes/agents into a hierarchy of importance.

For example, what are the primary, secondary, and relatively rare causes of lung cancer?

- e. Use order of magnitude estimates, unprompted, to identify important effects, disregard unimportant effects and predict results of a more detailed model.

- f. Use 2-by-2 tables, flowcharts, and other strategies to organize information and manage scenarios.

## Modeling with geometry, equations, functions, probability, and statistics

### Core Standards - Students can and do:

- a. Model physical objects with geometric shapes.

Include common objects that can reasonably be idealized as two- and three-dimensional geometric shapes. Identify the ways in which the actual shape varies from the idealized geometric model.

- b. Model situations with equations and inequalities.

Include situations well described by a linear inequality in two variables or a system of linear inequalities defining a region in the plane.

- c. Model situations with common functions.

Include situations well described by linear, quadratic or exponential functions; and situations that can be well described by inverse variation ( $f(x) = k/x$ ). Include identifying a family of functions that models features of a problem, and identifying a particular function of that family and adjusting it to fit by changing parameters. Understand the recursive nature of situations modeled by linear and exponential functions.

- d. Model situations using probability and statistics.

Include using simulations to model probabilistic situations; describing the shape of a distribution of values and summarizing a distribution with measures of center and variability; modeling a bivariate relationship using a trend line or a regression line.

## Mathematics: High School—Statistics

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### A Coherent Understanding of Statistics.

[Final draft of CCR narrative goes here.]

#### Summarizing and interpreting categorical, count and measurement data

##### Core Standards - Students understand that:

1. Statistical methods take variability into account to support making informed decisions based on quantitative studies designed to answer specific questions.
2. Visual displays and summary statistics condense the information in data sets into usable knowledge.

##### Core Standards - Students can and do:

- a. Summarize comparative or bivariate categorical data in two-way frequency tables; interpret joint, marginal and conditional relative frequencies in the context of the data.
- b. Compare data on two or more count or measurement variables by using plots on the real number line (dot plots, histograms and box plots); use appropriate statistics to summarize center (median, mean) and spread (interquartile range, standard deviation) of the data sets; interpret changes in shape, center and spread in the context of the data sets, accounting for possible effects of extreme data points.
- c. Summarize bivariate quantitative data by giving a regression line and a measure of goodness of fit.

#### Making inferences and justifying conclusions drawn from data

##### Core Standards - Students understand that:

1. Statistics is a process for making inferences about population parameters based on a sample from that population; randomness is the foundation for statistical inference.
2. The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions.

##### Core Standards - Students can and do:

- a. Use probabilistic reasoning to decide if a specified model is consistent with a given data-generating process.
- b. Recognize the purposes of and differences among sample surveys, experiments and observational studies; explain how randomization relates to each.
- c. Use data from a sample survey to estimate a population parameter.
- d. Use data from a randomized experiment to compare two treatments.
- e. Evaluate reports based on data.

## Mathematics: High School—Probability

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### A Coherent Understanding of Probability.

[Final draft of CCR narrative goes here.]

#### Modeling random events with finite sample spaces

##### Core Standards · Students understand that:

1. Random phenomena can be modeled mathematically using a sample space in which sample points represent distinct outcomes, and in which each sample point is assumed to have the same probability.
2. Events are subsets of a sample space that can be defined using characteristics (or categories) of the sample points, as well as unions, intersections, or complements thereof ('and', 'or', 'not'). A sample point may belong to several events (categories).
3. If A and B are two events (categories), then the conditional probability of A given B, denoted by  $p(A | B)$ , is the fraction of sample points in B that also lie in A.
4. The laws of probability can be used to generate new probabilities from known probabilities.

##### Core Standards · Students can and do:

- a. Compute theoretical probabilities of compound events by constructing and analyzing representations, including tree diagrams, systematic lists, and Venn diagrams
- b. Use the addition and multiplication laws of probability to compute probabilities of complementary, disjunctive, and compound events.
- c. Apply concepts such as intersections, unions and complements of events, and conditional probability and independence, to define or analyze compound events, calculate probabilities, and solve problems.
- d. Construct and interpret two way tables to show probabilities when two characteristics (or categories) are associated with each sample point. Use a two way table to determine conditional probabilities.
- e. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations.
- f. Use permutations and combinations to compute probabilities of compound events and solve problems.

#### Experimenting and simulating to model probabilities

##### Core Standards · Students understand that:

1. Sets of data obtained from surveys, simulations, or other means, can be used as probability models, by treating the data set itself as a sample space, in which the sample points are the individual pieces of data. The probability of an event within the data set is its relative frequency.
2. The law of large numbers provides the basis for estimating certain probabilities by use of empirical relative frequencies.
3. The probability of an outcome can be interpreted as an assertion about the long-run proportion of the time the outcome will occur if the random experiment is repeated a large number of times. The observed proportion of occurrence for the outcome of interest can be used as an estimate of the relevant probability.

##### Core Standards · Students can and do:

- a. Calculate experimental probabilities by performing simulations or experiments involving a probability model and using relative frequencies of outcomes.

- b. Compare the results of simulations (e.g., random number tables, random functions, and area models) with predicted probabilities. When there are substantial discrepancies between predicted and observed probabilities, explain them in terms of the assumptions of the probability model.
- c. Use the relationship between conditional probabilities and relative frequencies in contingency tables to analyze decision problems.
- d. Use the mean and standard deviation of a data set to fit it to a normal distribution (bell-shaped curve) and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets and tables to estimate areas under the normal curve.
- e. Apply the binomial theorem to solve probability problems.

### Using probability to make decisions

#### Core Standards - Students understand that:

1. A probability distribution is a collection of probabilities  $\{p_1, \dots, p_n\}$  for a set of mutually exclusive and jointly exhaustive events  $\{E_1, \dots, E_n\}$ . The probabilities in a probability distribution sum to unity.
2. A random variable attaches a value to each event in a probability distribution. The expected value of the random variable is the weighted average of its possible values, with weights given by their respective probabilities.
3. When the possible outcomes of a decision can be assigned probabilities and payoff values, the decision can be analyzed as a random variable with an expected value, e.g. of a wager. If possible, this is the first thing to compute in a decision context.

#### Core Standards - Students can and do:

- a. Calculate expected value to analyze mathematical fairness, payoff.
- b. Evaluate and compare options in situations where all of the available options share the same expected value but carry different levels of risk.
- c. Analyze each of two options and make a quantitatively informed decision in situations where one option has both a higher expected return and a higher level of risk. Include both low-stakes and high-stakes decisions.
- d. Analyze decision problems using probability concepts.

## Mathematics: High School—Geometry

### A Coherent Understanding of Geometry.

[Final draft of CCR narrative goes here.]

#### Triangle Congruence

##### Core Standards - Students understand that:

1. Rigid motions move lines to lines and segments to segments; preserve the distance between points; and preserve measures of angles.
2. Two geometric figures are congruent if there is a sequence of rigid motions that carries one onto the other. This is the principle of superposition.
3. Criteria for triangle congruence can be thought of as answers to the following question: What information about the measures in a triangle ensures that all triangles drawn with those measures are congruent?
4. Criteria for triangle congruence can be established using rigid motions.

##### Core Standards - Students can and do:

- a. Use (in reasoning and problem solving) precise definitions of angles, polygons, parallel and perpendicular lines, rigid motions (rotations, reflections, translations), parallelograms and rectangles; commit these definitions to memory.
- b. Prove theorems about lines and angles; test conjectures and identify logical errors in fallacious proofs.  
  
Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; measures of supplementary angles sum to  $180^\circ$ ; two lines parallel to a third are parallel to each other; points on a perpendicular bisector of a segment are exactly those equidistant from the segment's endpoints.
- c. Prove theorems about triangles; test conjectures and identify logical errors in fallacious proofs.  
  
Theorems include: measures of interior angles of a triangle sum to  $180^\circ$ , base angles of isosceles triangles are equal, the triangle inequality, the longest side of a triangle faces the largest angle and vice-versa, the exterior-angle inequality, and the segment joining midpoints of two sides of a triangle parallel to the third side and half the length.
- d. Use and prove properties of and relationships among special quadrilaterals: parallelogram, rectangle, rhombus, square, trapezoid and kite.
- e. Characterize parallelograms in terms of equality of opposite sides, in terms of equality of opposite angles, and in terms of bisection of diagonals; characterize rectangles as parallelograms with equal diagonals.

#### Similarity, Right Triangles and Trigonometry

##### Core Standards - Students understand that:

1. The dilation of a given line is parallel to the given line. (In particular, lines passing through the center remain unchanged.)
2. The dilation of a given segment is parallel to the given segment and longer or shorter in the ratio given by the scale factor. A dilation leaves a segment unchanged if and only if the scale factor is 1.
3. The assumed properties of dilations can be used to establish the AA, SAS and SSS criteria for similarity of triangles.
4. Similarity allows one to view side ratios in right triangles as properties of the angles themselves, leading to elementary definitions of sine, cosine and tangent.

### Core Standards · Students can and do:

- a. Use triangle similarity criteria to solve problems and to prove relationships in geometric figures.
- b. Prove that two lines with well-defined slopes are parallel if and only if they have the same slope, and perpendicular if and only if the product of their slopes is equal to  $-1$ .
- c. Give an informal explanation using successive approximation that a dilation of scale factor  $r$  changes the length of a curve by a factor of  $r$  and the area of a region by a factor of  $r^2$ .
- d. Use and explain the relationship between the trigonometric ratios of complementary angles.
- e. Use trigonometric ratios and the Pythagorean theorem to solve right triangles<sup>66</sup> in applied problems.

## Circles

### Core Standards · Students understand that:

1. All circles are similar.
2. There is a unique circle through three non-collinear points, or tangent to three non-concurrent lines.

### Core Standards · Students can and do:

- a. Identify and describe relationships among angles, radii, and chords.

Include the relationship between central, inscribed and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.

- b. Identify and define radius, diameter, chord, tangent, secant and circumference.
- c. Determine the arc lengths and the areas of sectors of circles, using proportions.
- d. Construct a tangent line from a point outside a given circle to the circle.
- e. Prove and use basic theorems about circles, and use these theorems to solve problems. Include:
  - Symmetries of a circle
  - Similarity of a circle to any other
  - Tangent line, perpendicularity to a radius
  - Inscribed angles in a circle, relationship to central angles, and equality of inscribed angles
  - Properties of chords, tangents and secants as an application of triangle similarity.

## Axiomatic Systems

### Core Standards · Students understand that:

1. Mathematical statements are proven or disproven by deductive reasoning. Conjectures can arise from inductive reasoning, but they cannot be proven that way.
2. Precise definitions make possible rigorous logical reasoning, and definitions shared in common make possible the objective evaluation of one's own reasoning by others.
3. Logical reasoning requires avoiding common fallacies, such as using an example to prove the rule or confusing a statement with its converse.
4. Axiomatic systems require precise definitions, but some terms must be left "undefined." The axioms specify how the undefined terms behave.
5. The first three postulates of the *Elements* are models of straightedge and compass construction.
6. Hilbert and other mathematicians improved on the *Elements* by identifying its hidden assumptions and making them explicit with additional axioms.

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<sup>66</sup> A right triangle has five parameters, its three lengths and two acute angles. Given a length and any other parameter, "solving a right triangle" means finding the remaining three parameters. (It is worth reflecting on why this problem is well-posed.)

7. Three classical construction problems (trisecting an angle, duplicating a cube and squaring a circle) inspired the development of much important mathematics.
8. The Parallel Postulate (axiom) distinguishes Euclidean geometry from other geometries. Other geometries, such as spherical and hyperbolic geometry, use alternatives to the Parallel Postulate. Many theorems of Euclidean geometry are not theorems in other geometries.

#### Core Standards - Students can and do:

- a. Use the terms point, line and plane to define other geometric terms as line segments, angles and rays.
- b. With ruler and compass:
  - Divide a segment into any number of equal parts.
  - Given two segments of lengths  $r$  and  $s$ , construct a segment of length  $rs$  and one of length  $r/s$ .
  - Given a segment of length  $r$ , construct a segment of length  $\sqrt{r}$ .

### Trigonometry of General Triangles

#### Core Standards - Students understand that:

1. The Law of Sines generalizes the side-angle inequality.
2. The Law of Cosines generalizes the Pythagorean theorem.
3. The Laws of Sines and Cosines embody the triangle congruence criteria, in that three pieces of information are usually sufficient to completely solve a triangle. Furthermore, these laws yield two possible solutions in the ambiguous case, illustrating that “Side-Side-Angle” is not a congruence criterion.

#### Core Standards - Students can and do:

- a. Explain proofs of the Law of Sines and the Law of Cosines.
- b. Use the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).

### Geometric Measurement and Dimension

#### Core Standards - Students understand that:

1. Congruence plays a fundamental role defining the concepts of length, area and volume.
2. Areas of polygons can be computed by dissecting them into triangles and using the fundamental property of area, that the area of a dissected figure is the sum of the areas of its components.
3. Lengths of curves and areas of curved regions can be defined informally using the concept of “limit.”
4. Cavalieri’s principle allows one to understand volume formulas informally by visualizing volumes as stacks of thin slices.

#### Core Standards - Students can and do:

- a. Give definitions of rectangular prism, (right) pyramid, (right circular) cone, (right circular) cylinder and sphere.
- b. For a pyramid or a cone, give an heuristic argument to show why its volume is  $(1/3)$  its height times the area of its base.
- c. Use the behavior of length and area under dilations to prove the formulas for the circumference and area of a circle.

- d. Apply formulas and solve problems involving volume and surface area of right prisms, right circular cylinders and right pyramids, cones, spheres and composite figures.
- e. Identify and apply the 3:2:1 relationship among volumes of circular cylinders, hemispheres and cones with same height and circular base and 3:1 relationship between volume of a prism and pyramid with same base area and height.
- f. Identify cross-sectional shapes of slices of three-dimensional objects, and identify three-dimensional objects traced out by rotations of two-dimensional objects.

## Mathematics: High School—Calculus

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Calculus is an important part of the high school curriculum for a large and growing number of students. To see well-established standards for this course, please see course descriptions such as those of the College Board, International Baccalaureate Organization, or any of the following states: California, Florida, Hawaii, Indiana, Mississippi, Pennsylvania, South Carolina, Tennessee, Utah, and Virginia. We invite feedback from states as to whether they would like to see Calculus in future drafts of the Common Core Standards.

## Progressions in Grades K–8

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Note, a progression may appear in more than one band.

### Grades K-5

#### Number

- Counting and Cardinality
- Base Ten Computation
- Early Relations and Operations
- Quantity and Measurement
- Operations and the Problems They Solve
- Fractions

#### Geometry

- Shapes
- Coordinates
- Geometry

#### Data

- Statistics

### Grades 6-8

#### Number

- The Number System

#### Algebra

- Ratios and Proportional Relationships
- Expressions and Equations
- Functions and the Situations They Model

#### Geometry

- Geometry

#### Data

- Statistics
- Probability

## List of Progressions and Grade Ranges

Strand	Progression	Start	End
Number	Counting and Cardinality	K	K
	Early Relations and Operations	K	1
	Base Ten Computation	K	5
	Quantity and Measurement	K	5
	Operations and the Problems They Solve	2	4
	Fractions	3	5
	Ratios and Proportional Relationships	6	7
	The Number System	6	8
Geometry	Shapes	K	4
	Coordinate Geometry	5	5
	Geometry	6	8
Algebra*	Expressions and Equations	6	7
	Functions & The Situations They Model	8	8
Data*	Statistics	5	8
	Probability	7	8

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\* The Algebra and Data strands have concepts and skills in earlier grades than progressions in the Number strand.

## GLOSSARY

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**Additive inverses.** Two numbers whose sum is 0 are additive inverses of one another. Example:  $\frac{3}{4}$  and  $-\frac{3}{4}$  are additive inverses of one another because  $\frac{3}{4} + (-\frac{3}{4}) = (-\frac{3}{4}) + \frac{3}{4} = 0$ .

**Algorithm.** A step by step routine that always gives some answer, rather than ever giving no answer; that always gives the right answer, and never gives a wrong answer; that can always be completed in a finite number of steps, rather than in an infinite number of steps; and that applies to all problems of a given type (e.g., adding any two multidigit whole numbers, or bisecting any angle). Cf. Wikipedia’s “effective procedure,” from which this definition is adapted.

**Common logarithm.** The common logarithm of  $x$  is the power to which you raise 10 in order to get  $x$ .

**Congruent.** Two plane or solid figures are congruent if one can be obtained from the other by a sequence of rigid motions (rotations, reflections, and translations).

**Dilation.** A transformation that moves each point along the ray through the point emanating from a fixed center, and multiplies distances from the center by a common scale factor.

**Integer.** A positive whole number, a negative whole number, or 0.

**Mean.** The sum of the values in a list divided by the number of values in the list. (To be more precise, this defines the *arithmetic mean*.)

**Median.** In a list of values, the value appearing at the center of a sorted version of the list—or the mean of the two central values, if the list contains an even number of values.

**Multiplicative inverses.** Two numbers whose product is 1 are multiplicative inverses of one another. Example:  $\frac{3}{4}$  and  $\frac{4}{3}$  are multiplicative inverses of one another because  $\frac{3}{4} \times \frac{4}{3} = \frac{4}{3} \times \frac{3}{4} = 1$ .

**Range.** The difference between the greatest and smallest values in a list of numbers.

**Rational number.** A number expressible in the form  $\frac{a}{b}$  for integers  $a$  and  $b \neq 0$ . The rational numbers include positive and negative integers, positive and negative fractions, and 0.

**Related fractions.** Two fractions are *related* if one denominator is a factor of the other. (See Ginsburg, Leinwand and Decker (2009), *Informing Grades 1-6 Mathematics Standards Development: What Can Be Learned from High-Performing Hong Kong, Korea, and Singapore?*, Table A1, p. A-5, grades 3 and 4.)

**Similarity transformation.** A rigid motion followed by a dilation.

**Single-place number.** The numbers that result when a whole number between 1 and 9 (inclusive) is multiplied by the numbers 10, 100, 1000, etc.

**Teen number.** A whole number that is greater than or equal to 11 and less than or equal to 19.

**Transitive property of measurement order.** If one object is bigger than a second, and the second object is bigger than a third object, then the first object is bigger than the third object.

## Tennessee Race to the Top – Appendix B-1-3

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### International Benchmarking and the Common Core

The Common Core State Standards (CCSS) are designed to be **college- and career-ready** and **internationally benchmarked**. To that end, the development process included the review and consideration of many sources, including research studies, existing standards from the U.S and abroad, and the professional judgment of teachers, content area experts, and college faculty. This paper will briefly describe how international benchmarking was used to develop the CCSS.

#### **What documents were used to ensure that the CCSS were internationally benchmarked?**

To ensure that the standards prepare students to be globally competitive, the development team used a number of sources, including: the frameworks for PISA and TIMSS; the International Baccalaureate syllabi; the American Institutes for Research report, *Informing Grades 1-6 Mathematics Standards Development: What Can Be Learned From High-Performing Hong Kong, Korea, and Singapore* and; the A+ Composite found in *A Coherent Curriculum: The Case for Mathematics* by Bill Schmidt, Richard Houang, and Leland Cogan.

In addition, the development team looked to the standards of a number of individual countries and provinces to inform the content, structure and language of the CCSS. In *mathematics*, twelve set of standards were selected to help guide the writing of the standards: Belgium, Canada [Alberta], China, Chinese Taipei, England, Finland, Hong Kong, India, Ireland, Japan, Korea, and Singapore.<sup>i</sup> In *English language arts*, the writing team looked closely at ten sets of standards from Australia (New South Wales and Victoria), Canada (Alberta, British Columbia, and Ontario), England, Finland, Hong Kong, Ireland, and Singapore.<sup>ii</sup>

#### **How were the international benchmarks used to inform the development of the CCSS?**

The goal of the international benchmarking in the common core state standards development process was to ensure that the CCSS are as rigorous as comparable standards in the high-performing and other countries. However, the use of international benchmarks as evidence is no easy feat; it is not simply a matter of identifying the “best” source and copying it, or of aggregating all viable sources to find some set of shared expectations. Rather, international benchmarks were used to guide critical decisions in the following areas:

- *Whether particular content should be included:* One of the principal ways international standards were used in this development process was as a guide when making tough decisions about whether content should be included or excluded.
- *When content should be introduced and how that content should progress:* The progression of topics in the international mathematics standards helped the development team make decisions about when to introduce topics in the CCSS as well as when to stop focusing on them.
- *Ensuring focus and coherence:* Standards from other countries tend to be very focused, including only what is absolutely necessary.

- *Organizing and formatting the standards:* Certain organizational aspects or characteristics of international standards that promoted clarity and ease of reading and use served as a model for the CCSS.
- *Determining emphasis on particular topics in standards:* Where emphasis on particular topics was found repeatedly in international standard, this was instructive in determining their importance for inclusion in the CCSS.

\* \* \* \* \*

When the final version of the K-12 Common Core State Standards is released, it will be accompanied by a discussion of the evidence that was used in their development. In the meantime, the evidence from the September 2009 draft of the College and Career Ready Standards is available: The URL for the ELA document is <http://www.corestandards.org/Files/ELAEvidence.pdf>, and the URL for the mathematics document is <http://www.corestandards.org/Files/MathEvidence.pdf>.

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<sup>i</sup> Eight of these were high-performers on either TIMSS, PISA or both: Belgium, Canada [Alberta], Chinese Taipei, Finland, Hong Kong, Japan, Korea, and Singapore. England and Ireland, which have uneven performances on international assessments, were included because of their cultural links to the United States. China and India were included because of their growing global competitiveness.

<sup>ii</sup> Differences in language have a greater impact on the teaching and learning of language arts than of mathematics, so the teams looked primarily at English-speaking countries. All were high-performers on PISA except Singapore, which did not participate, and England, which as in mathematics was selected partly for its cultural links to the United States.

## News Release

09/01/2009

### **Fifty-One States And Territories Join Common Core State Standards Initiative**

#### **NGA Center, CCSSO Convene State-led Process to Develop Common English-language arts and Mathematics Standards**

Contact: Jodi Omear, 202-624-5346  
Office of Communications

**WASHINGTON**—The National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO) today released the names of the states and territories that have joined the Common Core State Standards Initiative: **Alabama; Arizona; Arkansas; California; Colorado; Connecticut; Delaware; District of Columbia; Florida; Georgia; Hawaii; Idaho; Illinois; Indiana; Iowa; Kansas; Kentucky; Louisiana; Maine; Maryland; Massachusetts; Michigan; Minnesota; Mississippi; Missouri; Montana; Nebraska; Nevada; New Hampshire; New Jersey; New Mexico; New York; North Carolina; North Dakota; Ohio; Oklahoma; Oregon; Pennsylvania; Puerto Rico; Rhode Island; South Carolina; South Dakota; Tennessee; Utah; Vermont; Virgin Islands; Virginia; Washington; West Virginia; Wisconsin; Wyoming.**

In the twenty-six years since the release of *A Nation at Risk*, states have made great strides in increasing the academic rigor of education standards. Yet, America's children still remain behind other nations in terms of academic achievement and preparedness to succeed.

By signing on to the common core state standards initiative, governors and state commissioners of education across the country are committing to joining a state-led process to develop a common core of state standards in English language arts and mathematics for grades K-12. These standards will be research and evidence-based, internationally benchmarked, aligned with college and work expectations and include rigorous content and skills.

"To maintain America's competitive edge, we need all of our students to be prepared and ready to compete with students from around the world," said **NGA Vice Chair Vermont Gov. Jim Douglas**. "Common standards that allow us to internationally benchmark our students' performance with other top countries have the potential to bring about a real and meaningful transformation of our education system to the benefit of all Americans."

"As state school chiefs, we have been discussing and building momentum for state-led, voluntary common standards that are both rigorous and internationally benchmarked for the past two years," stated **CCSSO President and Arkansas Commissioner of Education Ken James**. "The broad level of commitment we have received from states across the nation for this unprecedented effort is both gratifying and exciting. It also clearly illustrates that this is an idea whose time has

arrived."

The Common Core State Standards Initiative is being jointly led by the NGA Center and CCSSO in partnership with Achieve, Inc; ACT and the College Board. It builds directly on recent efforts of leading organizations and states that have focused on developing college- and career-ready standards and ensures that these standards can be internationally benchmarked to top-performing countries around the world. The goal is to have a common core of state standards that states can voluntarily adopt. States may choose to include additional standards beyond the common core as long as the common core represents at least 85 percent of the state's standards in English language arts and mathematics.

"Measuring our students against international benchmarks is an important step," said **Virginia Gov. Timothy Kaine**. "Today, we live in a world without borders. It not only matters how Virginia students compare to those in surrounding states – it matters how we compete with countries across the world."

"Only when we agree about what all high school graduates need to be successful will we be able to tackle the most significant challenge ahead of us: transforming instruction for every child," said **CCSSO President-Elect and Maine Education Commissioner Sue Gendron**. "Common standards will provide educators clarity and direction about what all children need to succeed in college and the workplace and allow states to more readily share best practices that dramatically improve teaching and learning. Our graduates and frankly, the future of our economy, cannot wait any longer for our educational practices to give equal opportunity for success to every student."

The NGA Center and CCSSO are coordinating the process to develop these standards and have created an expert validation committee to provide an independent review of the common core state standards, as well as the grade-by-grade standards. This committee will be composed of nationally and internationally recognized and trusted education experts who are neutral to – and independent of – the process. The college- and career-ready standards are expected to be completed in September 2009. The grade-by-grade standards work is expected to be completed in January 2010.

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*Founded in 1908, the National Governors Association (NGA) is the collective voice of the nation's governors and one of Washington, D.C.'s most respected public policy organizations. Its members are the governors of the 50 states, three territories and two commonwealths. NGA provides governors and their senior staff members with services that range from representing states on Capitol Hill and before the Administration on key federal issues to developing and implementing innovative solutions to public policy challenges through the NGA Center for Best Practices. For more information, visit [www.nga.org](http://www.nga.org).*

*The Council of Chief State School Officers (CCSSO) is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, and five U.S.*

*extra-state jurisdictions. CCSSO provides leadership, advocacy, and technical assistance on major educational issues. The Council seeks member consensus on major educational issues and expresses their views to civic and professional organizations, federal agencies, Congress, and the public. [www.ccsso.org](http://www.ccsso.org).*

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## College & Career-Ready Policy Institute Final Policy Plan - Tennessee

### OVERVIEW

The Final State Policy Plan is intended to facilitate effective articulation of the state's policy recommendations that stem from the College & Career-Ready Policy Institute. It is meant to provide a useful framework for each state to consider in developing its final policy plan—with a focus on effectively informing stakeholders, generating support, and establishing a baseline on which to gauge future progress.

### POLICY INSTITUTE FRAMEWORK

The Policy Institute Framework outlines a set of policy areas and related elements that are essential to the development of an integrated state policy system aligned with college and career readiness.

Policy Areas	Policy Elements Within Each Policy Area
I. Goals	<p style="text-align: center;"><u>A. Clear and Rigorous Goals</u></p> <p>Set Clearly Defined Numerical Goals and Benchmarks that (along with Other Strategies Such as Standards, Graduation Requirements, etc.) Establish College and Career Readiness as the Central Driver of the State's Assessment and Accountability Systems.</p>
II. Data	<p style="text-align: center;"><u>B. Data System</u></p> <p>Ensure Full Implementation, Access, and Utilization of Longitudinal Student Data Systems to Accurately Measure College and Career Readiness and Inform Teaching and Learning.</p>
III. Assessment	<p style="text-align: center;"><u>C. Assessment</u></p> <p>Design and Implement a Comprehensive and Coherent Assessment System Aligned with College and Career Readiness.</p>
IV. Accountability Systems	<p style="text-align: center;"><u>D. Measures</u></p> <p>Identify and Incorporate an Array of Measures and Indicators (Beyond Solely Assessment Results) that Reflect Progress Toward, Attainment of, and Exceeding College and Career Readiness.</p>
	<p style="text-align: center;"><u>E. Determinations and Classifications</u></p> <p>Ensure that Accountability Determinations and Classifications are Valid and Reliable, Aligned with College and Career Readiness, and Trigger Appropriate Supports and Interventions.</p>
V. Supports and Interventions for Districts and Schools	<p style="text-align: center;"><u>F. Process of School/District Evaluation and Review</u></p> <p>Provide a Process and Structure for Holistic Diagnostic Review that Looks Beyond Initial Accountability Determinations and Incorporates Additional Data and Research.</p>
	<p style="text-align: center;"><u>G. Range of Supports and Interventions for Districts and Schools</u></p> <p>Establish and Ensure that There Is a Range of Differentiated Supports and Interventions from the State to Support All Schools and Districts.</p>
	<p style="text-align: center;"><u>H. Effective Delivery of Supports and Interventions for Districts and Schools</u></p> <p>Ensure Effective Delivery of Supports and Interventions in a Manner that Is Efficient and Effective, Builds Capacity, Supports Evaluation and Improvement, and Is Sustainable.</p>

<b>VI. Early Warning Systems, Pathways, Options, and Models</b>	<u><b>I. Early Identification, Dropout Prevention, and Recovery</b></u> Implement Early Warning Systems to Identify Students Most At-Risk of Dropping Out and Link Them to Prevention and Intervention Strategies and Models to Get Them Back On-Track to College and Career Ready Graduation.
	<u><b>J. Models, Pathways, and Options to Raise College and Career Readiness</b></u> Create Policies and Vehicles (e.g., Dual Enrollment, Alternative Ed, Dropout Policies, Public-Private School Development Intermediary) to Support an Array of Educational Pathways to Postsecondary Access and Success, Especially for Low-Income and Underperforming Students.

**I. EXECUTIVE SUMMARY**

**Tennessee’s College and Career Ready Vision:**

Tennessee and its citizens will prepare students statewide for economically sound futures and fulfilling lives. This success will be built on strong state and local partnerships between educators, families, businesses, and communities and through state level education policies that reflect high expectations for students and educators.

**Background**

Tennessee’s involvement in the College and Career Ready Policy Institute (CCRPI) was a natural progression from the state’s recent efforts with the American Diploma Project, P-16 alignment, and standards reform. Tennessee joined the American Diploma Project Network at a time when state government was making historic new investments in education. Governor Phil Bredesen had just made extensive changes to the Basic Education Plan to improve equitable distribution of state education dollars to districts with students most in need of additional resources. With these additional resources came a greater emphasis on responsibility and accountability for improving education for all students. Additionally, the growing gap between student performance on state tests and national tests (NAEP) required the Governor and education leaders in the state to address the rigor of academic standards simultaneously.

With this growing gap in student performance evident, Tennessee signed onto the ADP as a blueprint for action. A true collaboration was formed representing K-12, higher education, the business and philanthropic community, Governor’s Office staff and Achieve, Inc. All partners were able to work toward a common goal and crafted aligned standards and course requirements for high school graduation to the college- and career-ready level.

The opportunity to join the College and Career Ready Policy Institute (CCRPI) provided Tennessee with a larger framework for ensuring these endeavors became a permanent part of the educational framework of the state. The state had already succeeded in completing the first two ADP policy goals (standards alignment and a college and career ready curriculum) and wanted to complete goals three and four (assessments and accountability) before Governor Bredesen left office in January 2011. The work of CCRPI would ensure this enterprise was accomplished.

By joining the CCRPI, Tennessee had the opportunity to communicate to parents, educators and students the importance of the state’s increased standards and graduation requirements through the Tennessee Diploma Project (TDP).

CCRPI was also an opportunity to more fully align K-12 and higher education academic expectations. One of higher education's pledged responses to the Tennessee Diploma Project and CCRPI has been to revise university admission requirements to reflect the increased high school graduation requirements for math and the prescribed science sequence. Students will graduate from Tennessee high schools under the new requirements in Spring 2013, therefore, this work will begin quickly.

The Tennessee Higher Education Commission (THEC) has spearheaded the discussion of policy implications between the University of Tennessee system and Tennessee Board of Regents system to revise university admission requirements, effective Fall 2013. Essentially, the revision will address the increased graduation requirements under the TDP.

These discussions have built the consensus that, effective in fall 2013, admission to public universities and community colleges will require completion of the Ready Core Curriculum of the new Tennessee Diploma Project. Adoption of this requirement will eliminate the current process of approving high school courses by individual colleges and facilitate the list of courses required for admission at each school. Students who do not complete the Ready Core Curriculum will not be admitted and must complete the requirements through additional course work in high school. This alignment will be approved through current channels of gaining approval with the systems' councils and consent of the presidents for each system's governance processes.

Tennessee, like most other states, now faces a challenging budget environment at the state and local level. A consistent message throughout both TDP and CCRPI involvement has been and will continue to be how the goals of the TDP builds a stronger economy and better future for Tennessee's students and families.

A challenge Tennessee will continue to face will be capacity issues with districts that do not have sufficient math and science teachers to meet the new graduation requirements. Districts also face challenges in training all educators on the new curriculum and standards. However, a statewide communication plan for schools and parents will allow districts to prepare over the next four years and to recruit and train teachers to fill any gaps in capacity. Tennessee already has several programs to recruit and train teachers in high need areas and will utilize multiple strategies to provide professional development to educators.

Tennessee must improve awareness and implementation of school intervention and support efforts to advance the goals of the TDP and college and career readiness.

***Tennessee's strengths:***

When Tennessee joined the American Diploma Project in January 2007, it was very clear that the impetus for the TDP was securing and continuing economic development, good jobs and a better quality of life for all its citizens. Both business and higher education leaders came to the table with K-12 educators and the Governor's office. All involved have played a critical role through both CCRPI and higher education's "sister" initiative—Making Opportunity Affordable.

Tennessee has taken significant steps towards establishing college- and career-ready standards, curriculum, and assessments. The statewide longitudinal data system and a commitment to “data driven” policy making have provided support for these changes. The CCRPI Leadership Team made an early and strong promise to incorporate college- and career-readiness standards into Tennessee’s accountability system—specifically, the State Report Card. The current school improvement model used by the state Department of Education is based on research and best practices. It continually evolves based on identified gaps in programs and services as determined by student performance outcomes. THEC and TDOE are also collaborating on End of Course exams that will build credibility for the rigor of required high school courses and provide utility to higher education preparation goals—a development that has created much excitement and enthusiasm in both agencies.

Tennessee continues to have a very strong commitment from and involvement by top leaders, the business community, and the philanthropic community. Emerging engagement by newer third party groups such as with Tennessee SCORE (a statewide collaborative, spearheaded by former Senator William Frist, focused on the long-term reform of education in Tennessee, to ensure that every child graduates high school prepared for college or a career) and the Public School Forum of Tennessee ( a coalition of state foundations) has solidified Tennessee’s partnership beyond state government officials. Finally, the communications team from TDOE is prepared to engage parents and the broader community about college and career readiness.

### ***Tennessee’s Challenges:***

The state has several challenges in realizing this vision but believes that with the strong CCRPI leadership team, clear goals, and a solid action plan, Tennessee can make college and career readiness a reality. The first challenge to achieving the state’s vision is strengthening professional development on the new standards. The state continues to work with teachers and districts to support all schools in preparing for the changes of the TDP. Professional development will be an ongoing challenge that will be met with a systemic plan for engaging educators and providing high quality instructional materials. A second challenge is public awareness. Tennessee will continue to work on raising public awareness of the TDP as a unified communications plan is implemented and a process to ensure all stakeholders are aware of the state’s goals and system changes is institutionalized. A final challenge is the tight budget environment. State revenues have declined dramatically, as have local government resources. Tennessee has made education a priority and protected the state’s education funding formula, the BEP, to date. However, Tennessee must maximize all current education dollars and work swiftly to secure additional federal and private grants that can promote the goals of the TDP.

## **Significant Policy Recommendations That Require Action**

### ***Linking goals of college-readiness to the state’s measures and consequences for accountability***

The state’s accountability system plays a central role in targeting action to make Tennessee’s vision of college- and career-readiness for all students a reality. The measures used in the accountability system attract significant attention from policymakers, the media, and parents. They drive behavior within school districts, schools and classrooms. It is critical that these measures align with the state’s goals for college- and career-readiness to ensure

that the attention and behavior is directed towards the same goals and used in the most cost effective manner.

Beginning in the 2009-10 academic year, the state's accountability system will begin to reflect measures tied to college- and career-ready expectations. The primary indicator in the adequate yearly progress (AYP) determination is the percentage of students who score proficient on state assessments in grades 3-8 and in high school end-of-course assessments. The definition of proficient used on state assessments beginning in 2009-10 will reflect the higher expectation that students have achieved mastery of academic standards and are prepared for college-level study.

In the following years, Tennessee will incorporate additional end-of-course assessments at the high school level, including English III, Algebra II, Chemistry, Geometry, and Physics. These assessments must be incorporated into the high school accountability system to ensure that they focus public attention on the content necessary for college and career success and drive instruction to a deeper level.

As these assessments are adopted, Tennessee will establish an Assessment Advisory Committee that will study and recommend to the State Board of Education a high school accountability system that incorporates these assessments into the measure of AYP or a new parallel system that triggers interventions as well as rewards for success. As it makes its decision, the Committee will consider measures based on individual student growth as well as attainment or status. Just as growth is allowed currently for measuring performance towards AYP, the new EOC exams would provide student growth data for similar measurements. The Committee will make its recommendation to the State Board of Education by April 2011.

### ***College and career-ready assessment system***

It is critical that the state's plans for a college- and career-ready assessment system and development of End of Course/anchor assessment(s) is advanced. Going forward, the state must build credibility and utility of End of Course tests with higher education. The Governor and our Leadership Team have made it a priority that adequate assessments are in place to guarantee students are graduating truly ready for college and work. The state's education leaders want to put far behind us the U.S. Chamber of Commerce "Leaders and Laggards<sup>1</sup>" report in which Tennessee, along with Oklahoma, received an "F" in "Truth in Advertising about Student Proficiency".

At the first CCRPI Leadership meeting, THEC and TDOE agreed in principle that English III and Algebra II End of Course Exams will be anchor assessments pending final approval from/and agreement on a common placement score from the TENNESSEE Board of Regents and the University of Tennessee systems. Proficiency on these exams would document student preparedness for college level coursework. There is consensus among the leadership group that the ACT must also be maintained as a benchmark exam as scores are used for lottery scholarship eligibility, institutional scholarships, and university admission.

Tennessee's new End of Course Exams will play a pivotal role in realizing our CCRPI vision. The new exams will be tied directly to the new standards, drive rigorous and relevant standards-based instruction, and provide "medium stakes" for students' grades (counts for

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<sup>1</sup> <http://www.uschamber.com/icw/reportcard/default>

25% of the final course grade). Additional end of course exams in higher level math and science classes will also increase the number of teachers with student growth/effectiveness data in Tennessee. Finally, and perhaps most importantly, the new assessments will help Tennessee measure the college and career ready skills that matter most to our business and higher education communities. College and career readiness is a goal that all Tennesseans demand.

## II. **VISION**

### **A Vision for the Future of Tennessee**

Tennessee and its citizens will prepare our children for economically sound futures and fulfilling lives. We will achieve success through strong state and local partnerships between educators, families, businesses, and communities and through state level education policies that reflect high expectations for students and educators.

Tennessee has long been an innovator in education reform. In the 1980's, it joined with other Southeastern states in leading the nation to a new focus on standards-based education. It instituted an ambitious career ladder system for teacher advancement and created a unique tool, the Tennessee Value-Added Assessment System (TVAAS), for measuring the impact of districts, schools, and teachers on the academic progress of students. More recently, the Tennessee Diploma Project reforms have enhanced academic content standards, bolstered high school graduates' exposure to math and science, and raised expectations for student performance to a college- and career-ready level. Tennessee is now poised to shape a new public education system that will help the state meet its economic development, workforce, and quality of life goals for all citizens.

The current economic climate makes educational attainment even more critical. To attract thriving and growing industry into the state, we need far more citizens with training beyond high school. To nurture innovative businesses within the state, we need citizens with the critical academic skills that will allow them to harness new opportunities. And to ensure that the state continues to grow, we need to concentrate on lifting educational attainment among populations that currently have the lowest attainment levels and economic possibilities.

The state's college- and career-ready goals reflect these major state goals.

- We will focus on raising attainment by prioritizing the high school graduation rate and matriculation into college and other postsecondary opportunities.
- We will focus on preparation for college and work, compelling far more students to graduate from high school with scores on end-of-course exams and college entrance exams that indicate preparation for success.
- We will insist on equity of attention and resources, setting the same lofty goals for all students, thereby driving more improvement among the students who start out farthest behind.

### **Overview of State's College- and Career-Ready Goals**

Tennessee aspires to see dramatic improvement in the preparation of its high school graduates for college, work, and better lives.

As a part of its work under the College- and Career-Ready Policy Institute, Tennessee has developed clear goals, indicators, targets, and trajectories to focus both public attention and policy action to meet this aspiration by 2017-18. The state's goals and indicators have been approved by the State Board of Education, and the targets and trajectories will be finalized with the State Board in the winter or early spring.

**GOALS:** Tennessee's three goals describe the major student outcomes on which the state will focus.

**INDICATORS:** Tennessee's nine indicators are specific measures of each goal. All indicators will include measures for all students and for student subgroups as available. Several of the indicators have baseline data for 2007-08; however, in many cases, imminent changes in assessments and calculations mean that baseline data will begin in 2009-10.

**TARGETS:** Tennessee's targets will reflect the outcome that the state intends to achieve for each indicator by 2017-18. The state will set lofty but attainable targets that will be the same for all student subgroups.

**TRAJECTORIES:** Tennessee's trajectories will detail the progress expected to be achieved each year from the baseline to the target year. Where possible, the state will develop trajectories based on the expected impact from policy changes each year or on another evidence-based methodology.

**GOAL 1:** Increase the high school graduation rate

Indicator 1. The percentage of first-time 9th grade students who graduate on-time with a regular diploma (longitudinal cohort method).

**GOAL 2:** Improve rates of college and career readiness

*4th and 8th grade students on track to college- and career-readiness*

Indicator 2. The percentage of 4th and 8th grade students (spring) who score at or above proficient on the TCAP reading/language arts and mathematics end-of-grade assessments and the corresponding gaps with Tennessee NAEP results.

Indicator 3. The percentage of 8th grade students (fall) who meet all college-readiness benchmarks of the ACT EXPLORE assessment in English, reading, mathematics, and science.

*High school graduates who are college- and career ready*

Indicator 4. The percentage of high school graduates who score at or above proficient on both the English III and Algebra II end-of-course assessments.

Indicator 5. The percentage of high school graduates who meet all ACT college-readiness benchmarks in English, reading, mathematics, and science.

Indicator 6. The percentage of first-time college and university freshmen enrolled in only credit-bearing courses (no remedial or developmental courses).

*High school graduates accelerated to college and careers*

Indicator 7. The percentage of high school graduates who have attained or are eligible for postsecondary credit through dual enrollment, dual credit, Advanced Placement exams and International Baccalaureate exams, or have attained industry certification.

**GOAL 3: Increase rates of postsecondary enrollment and completion**

Indicator 8. The percentage of recent public high school graduates enrolled in postsecondary education.

Indicator 9. The percentage of first time postsecondary students completing degrees within 150% of normal degree program time (e.g., three years for associates degree and six years for bachelor's degree)

**III. POLICY RECOMMENDATIONS**

**POLICY PRIORITY OVERVIEW**

Policy Areas	Policy Elements	Status
<b>I. Goals</b> <b>A. Clear &amp; Rigorous Goals</b>	Tennessee's Goals and Indicators Document Developed by the Governor's Office, TDOE, and THEC.	Complete
	Standards Review Process and Timeline	Ongoing
<b>II. Data</b> <b>B. Data System</b>	Expansion of Data Warehouse through ARRA SLDS Grant	SLDS Grant Submitted
<b>III. Assessment</b> <b>C. Assessment</b>	K-12/Higher Education Partnership on End of Course Exams	Ongoing
	Assessment Advisory Committee	Codified in 2010 Session

<p><b>IV. Accountability Systems</b> D. Measures E. Determinations &amp; Classifications</p>	<p>State Report Card—College and Career Readiness Tab</p>	<p>In Development</p>
<p><b>V. Supports and Interventions for Districts &amp; Schools</b> F. Process of School/District Evaluation &amp; Review G. Range of Supports &amp; Interventions for Districts &amp; Schools H. Effective Delivery of Supports &amp; Interventions for Districts &amp; Schools</p>	<p>Scan and Plan</p>	<p>In Development</p>
<p><b>VI. Early Warning Systems, Pathways, Options, &amp; Models</b> I. Early Identification, Dropout Prevention, &amp; Recovery J. Models, Pathways, &amp; Options to Raise College &amp; Career Readiness</p>	<p>RAMP UP  America’s Promise Dropout Prevention Partnership</p>	<p>Race to the Top Component  Ongoing</p>

**I. Goals**

**A. Clear and Rigorous Goals**

*Set Clearly Defined Numerical Goals and Benchmarks that (along with Other Strategies Such as Standards, Graduation Requirements, etc.) Establish College and Career Readiness as the Central Driver of the State’s Assessment and Accountability Systems.*

**Tennessee’s Goals and Indicators Document (Complete)**

Development of Tennessee’s Goals and Indicators Document demonstrates a hallmark of Tennessee’s CCRPI involvement—true collaboration in thinking, research, data sharing, and trouble shooting between the Governor’s Office, TDOE, and THEC.

On July 31, the State Board convened for a first reading of the “indicators and trajectories” portion of the Goals and Indicators document. The document was then opened to the public for comment. During this time, the CCRPI leadership team solicited and accepted feedback on the document from key stakeholders across the state including those in higher education, the philanthropic community, the business community, teachers, administrators, parents, students, and those affiliated with Tennessee SCORE. Broad stakeholder input was then used to form the final version of the document.

On November 6, 2009, the State Board had a final reading of the revised Goals and Indicators document, accepted the measures and agreed to use it to frame Tennessee's Annual Performance Report starting January 2010.

The CCRPI team has worked hard to ensure that these goals become part of a systemic routine and culture, and is encouraged in this effort by the Tennessee Higher Education Commission (THEC) and Tennessee SCORE formally endorsing these measures. THEC and the State Board have decided to build a joint SBE and THEC Report around these Goals and Indicators. Tennessee SCORE is also working to establish a taskforce to work with the State Board and THEC on the Teacher Preparation Program Report Card. Please see supporting links below<sup>2</sup>.

The State of Tennessee has the political will and capacity to realize these goals in the future and will reset the baseline for reaching the goal of 90% graduation once the first cohort graduates. We have worked hard to secure the unprecedented endorsement of key stakeholders, to align efforts and to achieve support for the bold reforms we have proposed. Participation in this policy institute and our commitment to these standards position us well for Race to the Top and other federally funded grant opportunities. Realizing the paramount importance of communication in all of these efforts, an announcement of these goals will be made to the public early next year in conjunction with Race to the Top.

After initial public announcement of the CCRPI goals, SCORE will partner to take on the mantle of college and career readiness through a College and Career Ready Advocacy Campaign.

To shepherd this campaign, SCORE, in consultation with Achieve, plans to:

1. Coordinate a communications effort across all key stakeholder groups to emphasize that getting a good paying job today requires a different level of education than before and that Tennessee can become #1 in the Southeast for education over the next five years. Emphasizing the Tennessee Diploma Project is a first step in this process. As a critical part of this campaign, the partners will provide concrete examples of how parents can help their child succeed.
2. Ensure all 2010 gubernatorial candidates have a strong background on education reform efforts in Tennessee by holding one-on-one briefings with all candidates and hosting a gubernatorial candidate forum focused on education.
3. Provide information on education reform efforts in Tennessee at Tennessee County Commissioners Association meetings and other meetings of state and local elected officials.

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<sup>2</sup> State Board adoption of CCRPI Goals.

<http://www.state.tn.us/sbe/2009Novemberpdfs/IV%20A%20TN%20College%20&%20Career%20Ready%20Goals%20Master.pdf>

THEC adoption of CCRPI Goals.

<http://www.state.tn.us/thec/Divisions/Commission/commissionmeetings/Archives/2009/fall/I.F.%20College%20and%20Career%20Ready%20Policy%20Institute%20Goals.pdf>

SCORE adoption of CCRPI Goals. [http://www.tennesseescore.org/\\_uploads/SCOREFinalReport.pdf](http://www.tennesseescore.org/_uploads/SCOREFinalReport.pdf) (pages 10& 22)

4. Work with local civic organizations and local business leaders to hold education policy information sessions for 2010 legislative and school board candidates.

### **Standards Review Process and Timeline (Ongoing)**

Tennessee Commissioner of Education, Dr. Timothy Webb, has committed the department through a Memorandum of Understanding to adopt/align all state curriculum frameworks with the Common Core Standards. Based on our previous work with Achieve, the state expects the TDP standards to be well aligned with the new Common Core Standards in mathematics and English/Language Arts. Achieve plans to develop an alignment process after completing the writing of the grade level standards and Tennessee plans to make any needed adjustments to be well aligned to the process. Achieve has provided Tennessee with a Side-By-Side analysis of the Common Core Standards and the current Tennessee math and English standards which show a strong correlation of topics.

Although Achieve benchmarks in science have not been developed, Tennessee expects to complete the alignment process with the benchmarks and the Common Core Standards as these become available.

Until the Common Core Standards are available, TDOE and the State Board of Education will review the application of the recently adopted TDP standards. The first review will take place in Spring 2010. Going forward, Tennessee will codify the Standards and Assessment Advisory Committee that was utilized during the establishment of the TDP. This group, described here in Section III, will periodically review and augment the Common Core to align with Tennessee's needs. The committee will also review and advise on the 15 percent of the state's standards that will be unique to Tennessee.

## **II. Data**

### **Data System**

*Ensure Full Implementation, Access, and Utilization of Longitudinal Student Data Systems to Accurately Measure College and Career Readiness and Inform Teaching and Learning.*

### **Data Systems: Expansion of Data Warehouse (SLDS Grant Submitted)**

The Tennessee Department of Education (TDOE), Tennessee Higher Education Commission (THEC), the State Board of Education, and the Governor's Office of State Planning and Policy have been working with the University of Tennessee Center for Business and Economic Research (UT-CBER) to create a data warehouse using K-12, higher education and workforce data. Tennessee is rich in value-added data and allows teacher and student data to be linked. The base of this data warehouse is TDOE's Longitudinal Data System which is currently supported by a 2006 Institute for Education Sciences grant and is already well developed. It is the state's mission to move to the frontier in the collection and utilization of data to promote improvements in program administration and educational outcomes. Tennessee applied for and is well-positioned to receive a new LDS grant in the recent round of applications associated with ARRA funds. A new grant would expand the capacity of the current warehouse to provide what the state has coined the Tennessee Longitudinal Data System 360° View of a Student.

Currently TLDS Business Intelligence functions satisfy basic expectations for interoperability at the local, district and statewide levels for student-level achievement, teacher-level effectiveness and policy-information capacity. However the system falls well short of establishing a complete, efficient, effective P20 database.

If funded, the new system would significantly increase teacher, school, and district level utilization of near real time data for individual students by employing sophisticated, as yet underutilized longitudinal data for predictive and retrospective identification of indicators of academic risks and achievement. The project will complete the TLDS P20.

Importantly, this grant would allow for improvement to existing business intelligence shortcomings. Furthermore this LDS would develop a secure infrastructure that captures influences on academic performance that go beyond traditional measures like teacher/student relationships, classroom experiences, course completion, and test scores to include health, children's services, mental health, and others. This new efficient, effective and coordinated approach will permit near- and long-term educational, administrative and outcome issues to be addressed, including attention to Early Warning Indicators and analysis of teacher effectiveness.

The State of Tennessee has also applied for a technical assistance grant from NGA (Achieving Graduation for All: Dropout Prevention and Recovery) to develop and implement indicators for a sophisticated Early Warning System to work in conjunction with the LDS, and to provide professional development to ensure the optimum use of data. The work moving forward will capitalize on the current TLDS foundation and position it for expansion as a nationwide model for multidisciplinary support of student achievement. It corresponds to Race To The Top assurances for data system requirements.

### III. Assessment

#### C. Assessment

*Design and Implement a Comprehensive and Coherent Assessment System Aligned with College and Career Readiness.*

#### **K-12/Higher Education Partnership on End of Course Exams (Ongoing)**

The ADP Alignment Institute and CCRPI have provided a policy forum and subsequent partnership between K-12 and Higher Education in pursuit and development of raised student expectations with a college and career focus related to course content and assessments. Ten end of course assessments are being aligned to rigorous content standards in the following high school subjects: Algebra I, Algebra II, Geometry, English I, English II, English III, Biology I, Chemistry, Physics, and U.S. History. Additionally, Algebra II and English III end of course assessments are considered "Anchor" assessments and will provide the opportunity for college level placement scores that may be used for decisions related to college course placement in math and English Language Arts.

At the invitation of TDOE, THEC is working with the Tennessee Board of Regents (TBR) and the University of Tennessee systems to identify university faculty in Mathematics and English and others experienced in test construction to serve on TDOE assessment panels along with their K-12 counterparts. From this process, Tennessee colleges and universities will gain broader

understanding of course standards and learning outcomes in K-12 schools. This fundamental knowledge of K-12 standards and appropriate assessments will bring consonance to K-12 and higher education definitions of “college ready.”

The outcome of the collaboration can also be policy revision to use the end of course test results in course level placement decisions as students enter colleges and universities. Furthermore, the collaboration will lead to construction of “bridge” courses in high school that satisfy remedial/developmental course requirements of the state’s colleges and universities.

The immediate focus for the K-12 and higher education partnership includes activities related to policy review, test development and implementation of end of course assessments for the 2009-10 school year. For 2009-10, five initial end of course assessments (Algebra I, English I, English II, Biology I, and U.S. History) will provide for partner participation in item, bias, and standards setting committees composed of K-12 and higher education faculty. For the five assessments, activities will begin in Fall 2009 and continue through summer 2010 concluding with the standard setting recommendations. Additionally, the Algebra II item and bias committee work will begin in Fall 2009 with English III following in the Fall 2010.

The primary timeline is Fall 2013, when all graduates of Tennessee high schools will have met the new high school graduation requirements and will have undergone assessment through the new Tennessee assessment model. Fall 2013 is the first term when Tennessee requirements of four years of Mathematics and a prescribed Science sequence will be mirrored in university admission requirements.

The adoption of end of course assessments poses challenges. In an era of reduced state level budgets, additional federal funding would be necessary to offset the minimal federal funds that are currently available for the end of course implementation. Tennessee’s federal assessment grant will provide only one fourth of the funding with state funding providing three fourths of the final funding for costs associated with this end of course assessment program. A lag in appropriate funding will provide for a reduced level of implementation with fewer assessments being added to the end of course program. Additional K-12 staff will be needed for program management and continued support of the partners to acquire resources will provide for long-term implementation success. Ongoing and sustained professional development for K-12 educators related to standards, instruction, and assessment will provide the necessary focus for college and career ready expectations and student success. Continued higher education support and faculty participation on assessment committees with K-12 educators will provide for valid, reliable, sustainable, and high quality assessments and reporting.

Another key piece of both our 3-8 and high school assessment system are the new Achievement Level Descriptors (also known as performance level descriptors) that apply across subjects and all grades. The Assessment Advisory Committee and Title I Committee of Practitioners provided feedback that led to revisions. TDOE develop will communication materials for parents so they understand what the new achievement level descriptors mean and what the implications are for their children.

## **Standards and Assessment Advisory Committee (To Be Codified in 2010 Session)**

During Tennessee's work on the American Diploma Project's Policy Commitments 1 and 2, the Governor's Office organized an Standards and Assessment Advisory Committee with a broad array of education stakeholders. Two of the three meetings included participation of the Governor. The CCRPI Leadership Team considers institutionalization of the ADP Assessment Advisory Committee critical. Prior to TDP/CCRPI, assessment decisions were often made in isolation without input from higher education and the business community. We want to make sure the more inclusive tradition continue.

In the upcoming 2010 legislative session, the Governor's Office will submit legislation codifying a Standards and Assessments Advisory Committee. We feel strongly that such a committee will be able to support TDOE and the State Board as Tennessee sets new cut scores and as we move to adopt the Common Core. In the next few years, the committee can play an invaluable role in maneuvering the Common Assessment conversation.

As currently conceived, the Committee will include fifteen (15) members, including: The chairs of the education committees of the state Senate and House of Representatives, or their designees; the commissioners of the departments of Education and Economic and Community Development, or their designees; the chairs of the state Board of Education, the Tennessee Board of Regents, the University of Tennessee, and the Tennessee Higher Education Commission, or their designees; and seven (7) citizens (business leaders, philanthropists, PTA members, etc.) involved in or interested in education, to be appointed by the governor, including at least two members from each grand division. The terms of the citizen members shall be four-year terms, except that the initial terms shall be staggered as follows: two members for one (1) year; two members for two (2) years; two members for three (3) years; and one member for four (4) years.

## **IV. Accountability Systems**

### **D. Measures**

*Identify and Incorporate an Array of Measures and Indicators (Beyond Solely Assessment Results) that Reflect Progress Toward, Attainment of, and Exceeding College and Career Readiness.*

### **E. Determinations and Classifications**

*Ensure that Accountability Determinations and Classifications are Valid and Reliable, Aligned with College and Career Readiness, and Trigger Appropriate Supports and Interventions.*

## **State Report Card—College and Career Readiness Tab (In Development)**

The state's accountability system plays a central role in mobilizing action to make Tennessee's vision of college- and career-readiness for all students a reality. The measures used in the accountability system attract significant attention from policymakers, the media, and parents. They drive behavior within school districts, schools, and classrooms. It is critical that these measures align with the state's goals for college- and career-readiness to ensure that the attention and behavior is directed towards the same goals.

Beginning in the 2009-10 academic year, the state's accountability system will begin to reflect measures tied to college- and career-ready expectations. The primary indicator in the adequate yearly progress (AYP) determination is the percentage of students who score proficient on state assessments in grades 3-8 and in high school end-of-course assessments. The definition of proficient used on state assessments beginning in 2009-10 will reflect the expectation that students have achieved mastery of academic standards and are prepared for the next level of study.

In following years, Tennessee will begin to incorporate additional end-of-course assessments at the high school level, including English III, Algebra II, Chemistry, Geometry, and Physics. These assessments must be incorporated into the high school accountability system to ensure that they work as intended - to focus public attention on content necessary for college and career success and drive instruction to a higher, deeper level.

As these assessments are adopted, the Standards and Assessment Advisory Committee will study and recommend to the State Board of Education a high school accountability system that incorporates these assessments into the measure of AYP or a new parallel system that triggers interventions as well as rewards for success. As it makes its decision, the Committee will consider measures based on individual student growth as well as attainment or status. The Committee will make its recommendation to the State Board of Education by April 2011. Also, as previously indicated, the higher education systems are working to adopt these assessments as an indicator of readiness for, and entry into, college level courses.

## **V. Supports and Interventions for Districts and Schools**

### **F. Process of School/District Evaluation and Review**

*Provide a Process and Structure for Holistic Diagnostic Review that Looks Beyond Initial Accountability Determinations and Incorporates Additional Data and Research.*

### **G. Range of Supports and Interventions for Districts and Schools**

*Establish and Ensure that There Is a Range of Differentiated Supports and Interventions from the State to Support All Schools and Districts.*

### **H. Effective Delivery of Supports and Interventions for Districts and Schools**

*Ensure Effective Delivery of Supports and Interventions in a Manner that Is Efficient and Effective, Builds Capacity, Supports Evaluation and Improvement, and Is Sustainable.*

## **Scan and Plan (In Development)**

Tennessee realized early on that we have a unique opportunity through ARRA to encourage school improvement and support the goals of the TDP and college and career readiness. The "Scan and Plan" process developed in partnership with EducationCounsel provided a "gap analysis" in the supports and interventions Tennessee offers districts, schools, and students.

The TDOE Commissioner needs information that will facilitate planning for the department in light of projected budget shortfalls in future years. The intent of "Scan and Plan" is to analyze the services and supports provided by the TDOE to schools in Tennessee, both High Priority and non- High Priority, to determine where there are redundancies and or gaps in services. The purpose of the Scan and Plan process is to facilitate the gathering of that

information from the departments responsible for assisting LEAs and their schools.

To accommodate this plan, Assistant Commissioners were asked to identify the programs and funding sources that would fit the requested profile. Each Assistant Commissioner was asked to have the appropriate personnel in their department complete the scan and plan template. After an initial review from EducationCounsel, TDOE program managers will now fill in the matrix gaps.

EducationCounsel will schedule a meeting with the Governor's Office of State Planning and Policy, TDOE's Deputy Commissioner, and other interested parties to discuss how to use the information provided by the matrix to inform steps going forward. An important question to answer is whether the information scanned provides enough information to make decisions around program/department structures, program continuation and collaboration, and resource allocation or if the department needs additional, deeper information from existing programs. [See draft SCAN and PLAN template attached].

## **VI. Early Warning Systems, Pathways, Options, and Models**

### **I. Early Identification, Dropout Prevention, and Recovery**

*Implement Early Warning Systems to Identify Students Most At-Risk of Dropping Out and Link Them to Prevention and Intervention Strategies and Models to Get Them Back On-Track to College and Career Ready Graduation.*

### **J. Models, Pathways, and Options to Raise College and Career Readiness**

*Create Policies and Vehicles (e.g., Dual Enrollment, Alternative Ed, Dropout Policies, Public-Private School Development Intermediary) to Support an Array of Educational Pathways to Postsecondary Access and Success, Especially for Low-Income and Underperforming Students.*

### **RAMP UP (Race to the Top Component)**

While Tennessee boasts several outstanding options for students—including those at-risk of dropping out of high school—to accelerate to college and career readiness, CCRPI highlighted our need for a greater variety of models, pathways, and options so that all students across the state have access to such educational opportunities. There are too many areas in Tennessee where kids have few to no options and a GED Certificate is not an acceptable alternative to a high school diploma.

The Governor's Office asked Dr. Gary Nixon, Executive Director of the State Board of Education, and Dr. Paula Myrick-Short, Vice Chancellor for Academic Affairs, Tennessee Board of Regents, to convene this group with representatives from K-12, higher education, community service organizations, and business leaders. The charge to task force was to develop a statewide strategy to dramatically expand options for non-traditional high schools that focus on college- and career-readiness. The task force created RAMP UP—a systemic strategy within the CCRPI agenda for at-risk students.

The first meeting was held on May 4<sup>th</sup> at Nashville State Community College—home to one of Tennessee's Middle College Campuses. Nancy Hoffmann from Jobs For the Future (JFF) provided a national review and J.B. Buxton from The Education Innovations Group gave an overview of North Carolina's Learn and Earn Program. The second meeting on June 25<sup>th</sup>

focused on crafting strategies for getting more students on track toward earning a high school diploma and a postsecondary credential. Four recommendations presented to the Governor's Office and recently to the Race to the Top Leadership Team:

1. Establish at-least five RAMP UP High Schools each year for the next five years.
2. Establish the office for RAMP UP Redesigned High Schools to facilitate the transformation of a number of high schools into nimble, academically rigorous and focused beacon institutions which will serve as models for all high schools to graduate all students prepared for college and work.
3. Provide free online courses through the TBR and UT systems that are available at all high schools across Tennessee through RAMP UP Online.
4. Endow and provide RAMP UP Grants to students. The two-year RAMP UP grants, in combination with other kinds of assistance, such as federal Pell Grants and Hope Scholarships, will replace the need for student loans, if the student remains in good academic standing.

Next steps include:

1. Review all current policies at SBE, TDOE, TBR, UT, the Tennessee Code Annotated (TCA) and identify any areas that could possibly be in conflict with PC 459. Should RAMP UP be implemented, the recommendation would be for policy review to be referred to the P-16 State Council, which serves as the Council for PC 459. The P-16 State council is made up of individuals representing each of the entities listed above.
2. Meet with legislative leadership to provide overview.
3. Secure funding for the implementation plan. Considering the state's current economic condition, the most viable option would be to obtain Race to the Top funds to use as start up grants with no additional long-term financial support beyond the current allocations.
4. Form and staff the new office for HS Redesign. The RAMP UP High School Office would consist of five state funded positions and will collaborate with TDOE, TBR, UT, the business community, and philanthropic groups.
5. Identify five RAMP UP High Schools and funds for planning year.

The processes to implement RAMP UP will involve all stakeholders: Governor's Office, General Assembly, State Board of Education, State Department of Education, Tennessee Board of Regents, University of Tennessee, private institutions, local education agencies, business partners, community service organizations, etc. The RAMP UP task force will be required to develop a plan to inform and involve relevant stakeholders. It is noteworthy that the SCORE Report endorsed the RAMP UP concept<sup>3</sup>. SCORE's support of RAMP UP will help support sustainability.

### **America's Promise Dropout Prevention Partnership (Ongoing)**

The 2009 Moving Forward Graduation Summit on March 18<sup>th</sup> provided solid groundwork for Tennessee's proactive efforts in high school dropout prevention. Thanks to the generous grant opportunities provided through the Summit's Partnerships, seven Tennessee counties and/or districts will be receiving \$1430 each to build their own local summit meetings, to provide more in-depth discussion and solutions. All seven local summits have now taken place:

- Davidson County, 10/30
- Cannon County 10/31

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<sup>3</sup> [http://www.tennesseescore.org/\\_uploads/SCOREFinalReport.pdf](http://www.tennesseescore.org/_uploads/SCOREFinalReport.pdf) (pages 6 & 10)

- Knox County, 11/14
- Hamilton County, 11/18
- Monroe County, 11/19
- DeKalb County, 12/1
- Memphis City Schools, 12/8-9

Effective dropout prevention can only happen through a united effort of the entire Tennessee community, including an engaged business community. Working with the Governor’s Office, and Volunteer TN, AT&T Tennessee has been a strong partner by funding and providing a study conducted by Civic Enterprises and Peter Hart Research with America’s Promise Alliance entitled “On the Front Lines of Schools.” This report will be presented at the Davidson County America’s Promise Summit and possibly other local/regional Summits as well.

Information on the 2009 Moving Forward Graduation Summit and follow-up county summits can be found at [www.volunteertennessee.net](http://www.volunteertennessee.net) (click on the photo of Governor Bredesen).

Ultimately, the Moving Forward Summits are aimed at stimulating local discussion and encouraging school districts to partner with parent groups, teacher groups, youth, and businesses in their community in a joint effort to increase graduation rates. The state provided an Action Planning Guide to each of the counties planning follow-up summits to use as a resource for compiling a comprehensive set of data that would prepare them to complete a finalized Action Plan specific to their own community. The state has requested that each local planning committee submit a local Action Plan to Volunteer Tennessee by the end of the year for feedback. Upon the submission of all completed local Action Plans, a combined summary will be provided to the Governor’s Office of State Planning and Policy for consideration of any policy issues that need to be addressed.

The Governor’s Office of State Planning and Policy will continue coordination and oversight of the America’s Promise initiatives in Tennessee in close partnership with Volunteer TN.

On the horizon, Tennessee submitted a proposal for the NGA’s State Strategies to Achieve Graduation for All, a project to support the development of state dropout prevention and recovery action plans. The grant would provide Tennessee \$50,000 of technical assistance to assemble a task force to complement education reforms already underway in the state of Tennessee related to higher standards, a comprehensive longitudinal data system, and the goal of ensuring all children graduate from high school ready to succeed in college and careers.

In working with the NGA policy academy, Tennessee would establish an Early Warning Data System that compliments the state’s robust longitudinal data system, design and implement policies to prevent dropout, appoint an official “dropout coordinator” for the Department of Education, design an asset map, and work with school districts throughout the state to identify and implement best practices.

## VII. Conclusion

Participation in the College and Career Ready Policy Institute has been both an important catalyst and a natural progression in the continuing development of Tennessee’s education policy priorities. Honing the focus on how data, standards, and assessments contribute to the



creation of a college and career ready culture in the state has provided Tennessee with a deeper basis for the type of education reform that will be part of the state’s Race to the Top application and, if successful, its implementation.

Tennessee is grateful for the support and guidance throughout the CCRPI experience and we look forward to following up with data on our successes.

# Tennessee Race to the Top – Appendix B-1-6

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To: Margaret Horn, Senior Management Consultant, Governor's Office of State Planning and Policy  
Dr. Gary Nixon, Executive Director, State Board of Education  
Dr. Rich Rhoda, Executive Director, Tennessee Higher Education Commission  
Teresa Sloyan, Executive Director, Hyde Family Foundations  
Ellen Thornton, Executive Director, Tennessee Business Roundtable  
Dr. Tim Webb, Commissioner, Tennessee Department of Education

From: Achieve, Data Quality Campaign, EducationCounsel, Jobs for the Future,  
National Governors Association Center for Best Practices

Cc: Erin O'Hara, Governor's Office of State Planning and Policy

Date: January 15, 2009

Re: Feedback to Tennessee CCRPI Final Policy Action Plan

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## **Introduction**

As the College & Career-Ready Policy Institute (Institute) draws to a close, the partner organizations have provided final thoughts and feedback to state leadership with regard to the policy actions and processes articulated by the state team in their final policy action plan. This letter outlines background on the Institute, an overview of general feedback on Tennessee's plan, and specific feedback on each of the state's policy areas of focus. We encourage you to share this letter with key stakeholders and leaders, and we hope it will be useful as your state works to enact and/or implement its plan.

It has been an extreme pleasure to work with the Tennessee team. The coordination and collaboration between the Governor's Office, the Department of Education, the Tennessee Higher Education Commission, business community, and other stakeholders has been outstanding and has served as a model for the other states involved in this Institute. This collaboration has allowed for the development of a comprehensive, aligned set of strategies to improve the educational attainment of all Tennessee students. In addition, the thoughtful and intentional outreach to a wide variety of stakeholders – including the newly developed Statewide Collaborative on Reforming Education (SCORE) - throughout the process has built a wide base of ownership and support for this work and will significantly contribute to the successful implementation and sustainability of the policies and priorities over time and across sectors and elected leadership. As state leaders encourage continuous education improvement, we hope the feedback included below helps the state to move forward on its goals and work beyond the Institute.

As you contemplate this feedback, please feel free to reach out to any of the partner organizations to unpack and get additional specificity on the recommendations within each of the policy areas. For your reference, the lead organizations for each policy area are listed below. Additionally, the partner organizations' Institute leads for Tennessee, Jennifer Rippner (EducationCounsel) and Lisa Gray (Achieve), will host a conference call with your state leads, Margaret Horn and Erin O'Hara, to walk through this memo and talk about partner recommendations in greater detail; if you would like to expand the audience for this call, please let them know.

By participating in the Institute, Tennessee has a significant head start in planning for and implementing the priorities identified in the American Recovery and Reinvestment Act (ARRA) and Race to the Top (RTTT). We hope that your state will leverage those and other opportunities to continue this work now that the Institute has ended.

### **Background**

In 2008, five national education organizations – Achieve, Data Quality Campaign, EducationCounsel, Jobs for the Future and the National Governors Association Center for Best Practices – came together, with funding from the Bill and Melinda Gates Foundation, to launch the Institute. Our goal was to identify leading states that had already raised expectations for their high school students and provide them with the opportunity to accelerate their efforts to ensure every student graduates from high school ready for college and productive careers. From September 2008 through December 2009, the Institute provided intensive assistance to Tennessee and seven other states, selected through a competitive application process. The partner organizations worked together to help each participating state develop a state-specific action plan organized around the following state-level policy outcomes:

- Clear goals for improving high school graduation and college- and career-readiness
- An assessment system that measures how well students are prepared for college and careers
- A school accountability system that makes college- and career-readiness a central priority, creates incentives for progress and continuous improvement, and provides effective supports and interventions for low-performing districts and schools
- Enhanced options and supports for boosting the achievement of low-income students and others at risk of not achieving college-ready standards and college success

As part of this process, each state established a cross-sector leadership team comprised of the governor's representative, the department of education, the state board of education, higher education, business and legislative leaders. This team determined the priorities, timetable and overall direction for the state's work. Throughout this process, the partner organizations provided states with access to leading state and national policy experts and research; customized, state-specific policy development support, including in-state technical assistance; and opportunities for cross-state technical assistance, including three Institute Leadership Sessions where states came together to network and benefit from cross-fertilization. At the end of the Institute, each state submitted a final Policy Action Plan to the partner organizations and is expected to formally present this plan to the appropriate governing bodies in their respective states.

### **Overview of and general feedback on Tennessee's action plan**

Tennessee's Leadership Team has accomplished a great deal through the course of this Institute. It was clear upon selection of Tennessee to participate in the Institute that the state had already made many positive strides towards college- and career-readiness for all students and was able to build and leverage this positive momentum throughout the CCRPI process. Previous successes include:

- a coordinated cross-sectoral leadership team with well-established working relationships;
- development and use of the Tennessee Value-Added Assessment System, which measures the impact of each district, schools, and teacher to student learning; and
- high school standards and graduation requirements aligned to college- and career-ready expectations.

Given that Tennessee's leadership team seeks continuous improvement, there emerged several areas of opportunity to address during the Institute, including:

- reflecting college- and career-ready standards in the state's goals and public reporting;
- ensuring that the state's K-12 assessment, accountability, and school improvement systems work in tandem to support the new rigorous standards and graduation requirements; and
- ensuring that the final policy action plan was sustainable beyond the current gubernatorial administration and through the state's budget challenges.

Tennessee made significant progress in these areas during the Institute. The final plan submitted to the partners reflects careful coordination of all policy areas and has widespread leadership and grassroots support to promote its implementation and sustainability. We encourage Tennessee to consider sustaining

the leadership team beyond the Institute in order to, in part, further define action steps and timelines for upcoming priorities (e.g. publishing a college- and career-ready goals report and creation of "bridge" courses). The state has already demonstrated the effectiveness of its leadership team at balancing and integrating multiple high-level education reform projects simultaneously, of which CCRPI was a central driver, and this will likely continue to be a benefit to the state in the future.

### **Specific feedback on Tennessee's policy priorities**

During its participation, Tennessee chose to focus on the full set of Institute policy objectives – goals, data, assessment, accountability, school and district supports and interventions, and systemic supports for students. Outlined below are key points for consideration, summary of progress made, and suggestions for next steps for each policy area.

#### Goals (*Expert partner: National Governors Association Center for Best Practices*)

Tennessee receives high praise for its work on creating and defining college- and career-readiness goals which are woven throughout the plan as a foundation for work on other policy areas. Tennessee is the only state in the Institute that completed all five steps of the recommended goal setting process, which includes selecting college- and career-ready performance indicators, creating bi-annual numerical targets, and publicly reporting performance on each indicator. The state also included numerous stakeholders in development of the goals and benchmarks which will bolster the acceptance and sustainability of the measures. We particularly note the state's efforts in involving leaders representing different student populations (e.g. minorities, English Language Learners, Students with Disabilities) to help determine the appropriate benchmarks and trajectories for those particular groups.

There are several other areas where Tennessee's work on goals is exemplary. For example, in creating its indicators, the state did a good job focusing not only on participation rates, but also benchmarks of success. Also included are meaningful indicators of career readiness. Further, K-12 and higher education are creating a joint report card on the goals which will communicate to the entire state that college- and career-readiness is a joint responsibility and state priority. To this point, a recently formed non-profit, SCORE, will be taking responsibility for communicating and publicizing the state's progress in meeting its goals. Placing some responsibility for the goals in this external body will go a long way to ensuring that the work begun in the Institute continues beyond the current leadership team and is embraced by a broad group of stakeholders. It is important that SCORE and others publicizing progress on goals take *active* steps to ensure effective communication to critical stakeholders rather than simply posting to the internet.

Remaining questions for the state's goals work include: the timeline, steps, and funding needed to publish a college- and career-ready goals report; the relationship between the goals and future school and district accountability, including how to reward or incentivize significant improvement towards these goals; and the process and timeline for review of college- and career-ready goals, targets, and trajectories.

#### Data (*Expert partner: Data Quality Campaign*)

Tennessee has a history of collecting data and developing data systems – including linkages between teacher and student data that provides them with a platform for moving forward and better utilizing data. Their longitudinal data system, supported through an IES grant will provide a strong foundation for linking data across the P20 to workforce spectrum. The state's efforts to continue expanding the use of data through application for additional SLDS funds is another positive move toward alignment of these data systems as is their effort to secure funding to support development of an early warning system that compliments their longitudinal data system.

Goals such as increasing postsecondary enrollment rates of recent high school graduates will require clear alignment between the data systems as will efforts to evaluate the assessments they are developing in terms of the impact on postsecondary enrollment or success. We encourage Tennessee to determine the extent to which they can track student data to out of state, independent, and proprietary institutions from the P20 data initiative the State Board of Education has been developing in concert with the Tennessee

While the focus of the P20 work may initially be on the development of the data warehouse, the inclusion of potential users such as education researchers throughout the process could be beneficial to the long-term use of the data in the P20 data warehouse.

In addition to seeking federal support from the SLDS program to develop a comprehensive P20 system, we encourage Tennessee to identify additional sustainable funding methods for expanding and maintaining their data systems across P20 and workforce to ensure the continued collection of high quality data as well as establishing processes to ensure that the various stakeholders, especially teachers, have the capacity to effectively use the data.

Assessment (*Expert partner: Achieve*)

We recognize and applaud the efforts Tennessee has made to improve and align its assessment system to the college- and career-ready expectations developed and adopted by Tennessee in 2009. We know this is difficult work that can be politically challenging so we commend Tennessee for making thoughtful decisions and setting and measuring expectations to ensure Tennessee students are prepared for their futures. We commend Tennessee's commitment to develop ten new End of Course (EOC) assessments aligned to the new college- and career-ready expectations, and support the incorporation of EOC assessments into student course grades. In particular, we want to acknowledge Tennessee's intention to develop and administer Algebra II and English III EOC assessments, with the explicit intention of setting a performance score that can be used to both indicate student readiness for credit-bearing entry level college courses and enable students to adjust high school coursework if necessary. These assessments will be aligned to college- and career-ready standards at the end of high school and open doors to college for more students. Performance on these EOC assessments can indicate whether or not a student is ready to place into credit-bearing, entry-level courses at the state's public postsecondary institutions. As important, students who do not score well will find out in time to make up any skill deficiencies while they are still in high school, with the added benefit of reducing remediation rates in state postsecondary institutions.

As the work of the CCRPI progressed, it was clear there was a growing understanding in Tennessee of the important role higher education staff and faculty must play in the creation of the assessment system if there is to be true alignment between the systems. Tennessee built on partnerships created through the standards development process and the Tennessee Diploma Project work and encouraged and invited significant higher education representation into the assessment development process. The collaboration developed between the Tennessee Higher Education Commission (THEC), University of Tennessee System, the Tennessee Board of Regents, the Tennessee Department of Education and the State Board of Education in the creation of the assessment system, the development of individual exams, the setting of cut scores, the future adoption of specific upper level EOC assessments to signal college readiness and the creation of "bridge" courses at the high school level has been exemplary.

However, the work is not yet complete. The higher education systems must take the next step to adopt the anchor assessments for college placement decisions. This step will send strong signals to students, parents and teachers about the importance of these exams and students' readiness for college work. It also is important for Tennessee to be very deliberate and clear about the integration and interaction between the EOC assessments and the ACT. How will these assessments and other indicators work together to create a more complete picture of college and career readiness for students, parents and teachers? How will they be built into the state's public reporting and accountability system? In addition, we strongly support and encourage Tennessee to continue its "Standards and Assessment Advisory Committee" beyond the life of the Tennessee Diploma Project and the CCRPI, so as to sustain this strategic and effective coordination and cooperation between the K-12 and higher education systems to collectively answer these and other questions as they arise.

The creation of EOC assessments at the high school level may allow for the expansion of Tennessee's value-added analysis and teacher-student linkages to the high school level. The partners strongly support this expansion and believe that it will offer another important dimension to Tennessee's teacher effectiveness efforts and will provide educators with the information and tools they need to better prepare students to succeed inside and outside the classroom.

The creation of the EOC assessments is an on-going resource and capacity challenge for Tennessee and many other states. As Tennessee continues this development process, the partners urge Tennessee to take advantage of partnerships with other states that are pursuing college- and career-ready assessments aligned to the "Common Standards" to increase capacity, reduce costs, and allow for cross-state student comparisons and to seek resources through federal dollars available for the development of "Common Assessments."

Accountability (*Expert partners: Achieve and Education Counsel*)

Tennessee recognizes the need to continue defining the linkage between its college and career readiness goals and the state's accountability system in order to fully ensure that college- and career-ready standards are met – e.g. this linkage promotes effective provision of supports and interventions to schools and districts as well as public transparency on how schools, districts, and the state are meeting the new standards. We support the direction Tennessee is moving in and encourage the state to continue building off of its momentum and strong leadership to further advance the K12 accountability system. This will require Tennessee to set a more detailed action plan and timeline for incorporating key college- and career-ready indicators, such as the upper-level EOC assessments at the high school level and the percent of students earning college credit while in high school, into the K-12 accountability system. As this work is pursued, the partners encourage Tennessee to incorporate additional incentives into the accountability system to reward significant school and district progress toward these goals.

Further, the state has indicated interest in creating a college and career readiness tab on the state report card. The objective is to create or enable a public discourse on college- and career-readiness, high school by high school. We believe this is an excellent first step in shining the spotlight on college and career readiness in high schools across the state. Ensuring this information is easily accessible will help advance the state's commitment to preparing all students for college- and career-ready expectations. We encourage the state to be clear about who will publish the data and how it will be monitored. What will be the respective role for the Department of Education, the Tennessee Higher Education Commission, the State Board of Education or even SCORE? We recommend there be cross-sector ownership and publication of this report card and data be available at the school, district and state level.

Tennessee has made some progress in incorporating college and career readiness into their accountability system (e.g. in 2009-2010, for AYP purposes, the definition of proficient for state assessment purposes will be revised to reflect the expectation that students have achieved mastery of academic standards and are prepared for the next level of study), but we urge the state to solidify plans for aligning its accountability system with its rigorous assessment system. This includes fully leveraging opportunities with NCLB waiver provisions and developments regarding the act's reauthorization.

School and District Support and Interventions (*Expert partner: EducationCounsel*)

Tennessee has taken a broader and more comprehensive approach to evaluating its supports and interventions to schools and districts than other states in the Institute, and thereby has placed a high level of focus on this policy area. The leadership team determined that after several years of adding school improvement initiatives and programs to its portfolio and budget, the impetus of the Institute and current budget situation created an opportunity to reevaluate its entire approach. As part of the Institute, Tennessee undertook a scan of all state school improvement-related programs and initiatives to determine what gaps and overlaps in services existed. This included consultation with Department program managers to review program budgets, measures of program effectiveness, program capacity and service targets, and future sustainability of programs. This process did, indeed, identify some key questions for Tennessee's leadership team to discuss including whether Field Service Centers should have more of a focus on building district capacity to improve schools and how Exemplary Educators and System

Targeted Assistance Teams can work together within districts and schools for their joint purpose of increasing student achievement.

We applaud the state for taking such a comprehensive approach to ensuring the right supports and interventions are provided to all schools and districts. We encourage the state to continue with this systemic approach in several ways. First, we strongly suggest the state continue with the "planning" portion of the "scan and plan" in order to create a more efficient and effective system of supports and interventions. We further suggest the state consider how to build capacity within districts for improving their own schools and ensure the state serves as a support for continuous improvement of all schools. Further, a comprehensive system of supports and interventions should tightly align with the state's accountability system so provision of services is targeted, efficient, and effective. Tennessee should ensure that it is fully leveraging federal School Improvement grants as part of the newly aligned and broader system.

#### Systemic Supports for Students (*Expert partner: Jobs for the Future*)

Tennessee's education leaders have made much progress in this area of the CCRPI framework. The plans are particularly comprehensive and ambitious in creating and expanding "Ramp Up" schools. We commend the state's steady focus on establishing goals and other policies that create favorable conditions for sustainability and expansion of these schools. As leaders continue to "review all current policies at SBE, TDOE, TBR, UT, [and] the Tennessee Code Annotated (TCA)," we hope that they will continue to seek out national lessons about the policies that enable early college schools.

In addition, we suggest that communication about Ramp Up be explicit that college credit in high school is a key design tenet of the schools, especially given its appeal to policymakers and the public. The Action Plan is not always explicit about this. Also, creating an office of high school redesign is a positive step. Are there private partners that could be enlisted to support new schools in partnership with the state office, similar to what has been done in states like North Carolina and Texas that support large numbers of early college schools? Public-private partnerships are capable of providing support and continuity for new school development in ways that neither the public nor private sector can accomplish alone.

Additionally, it is encouraging that the state intends to develop plans for implementing early warning systems once it has made sufficient progress on enhancing its longitudinal data system. Tennessee's receipt of an NGA Dropout Prevention and Recovery grant will assist the state in moving towards this goal in a timely manner.

We also applaud how the state is using momentum from its "Moving Forward Graduation Summit" to drive concrete plans and partnerships at the local level with oversight from the governor and a structure for feedback to other state stakeholders. And we would encourage the state, as part of this effort and those that promote "non-traditional schools," to consider creating schools designed to recover out-of-school youth and put them back-on-track to college-ready high school graduation.

#### Closing

The partner organizations commend the Tennessee team for the time and effort it has invested in generating this plan. As Tennessee moves forward with this work, the partner organizations encourage the state to consider the feedback outlined in this letter and to continue to make connections across policy areas and funding streams.

It has been a pleasure for each of the partner organizations to get to know and work with the Tennessee team. Should you have any specific questions about the partner's feedback, please do not hesitate to contact your Institute state leads, Jennifer Rippner and Lisa Gray. We look forward to seeing the state's progress in implementing and enacting its plan.

## Tennessee Race to the Top – Appendix B-1-7

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### STANDARDS

Please note that this is the relevant excerpt of this law (see Section 8) and not the entire statute:

T.C.A. 49-1-302(a)(8): This section outlines the power and duties of the Board of Education:

49-1-302. Powers and duties of the board — Confidentiality of records — Standards, policies, recommendations and actions subject to appropriations — Guidelines and criteria for evaluation of certificated employees — Duty-free lunch and planning periods — Confidentiality and integrity of statewide tests — Ungraded and unstructured classes — Limits on local costs of special education — Recruitment, employment and retention of African-American teachers — Uniform clothing — Railroad crossing safety — Standards of care for before and after school programs — Creation of child care advisory council. —

**(a)** It is the duty of the board, and it has the power to:

**(1)**

**(A)** Study programs of instruction in public schools, kindergarten through grade twelve (K-12);

**(B)** Analyze the needs of such public schools;

**(C)** Study the use of public funds for such public schools; and

**(D)** Include the conclusions of the studies and analyses in its annual recommendations to the governor and general assembly for the funding of public education;

**(2)** Set policies for:

**(A)** The completion of elementary, middle, junior high and senior high schools as structured in each school district;

**(B)** Evaluating individual student progress and achievement;

**(C)** Evaluating individual teachers; and

**(D)** Measuring the educational achievement of individual schools;

**(3)** Develop and maintain current a master plan for the development of public education, kindergarten through grade twelve (K-12), and provide recommendations to the executive branch, the general assembly and the local boards of education and directors of schools regarding the use of public funds for education;

**(4)**

**(A)** Develop and adopt policies, formulas and guidelines for the fair and equitable distribution and use of public funds among public schools and for the funding of all requirements of state laws, rules, regulations and other required expenses, and to regulate expenditures of state appropriations for public education, kindergarten through grade twelve (K-12). The policies, formulas and guidelines may be changed as necessary, but not more often than once per appropriation period, and shall not be considered rules subject to promulgation under the Uniform Administrative Procedures Act, compiled in title 4, chapter 5. The policies, formulas and guidelines adopted by the board shall consider and include provisions for current operation and maintenance, textbooks, school food services, pupil transportation, vocational and technical education, number of programs of pupils served, measurable pupil improvement, reduction of pupil dropouts, teacher training, experience and certification, pupil-teacher ratio, substitute teacher reimbursement, requirements prescribed by state laws, rules, regulations or other required costs, and inflation, and may include other elements deemed by the board to be necessary. Any changes in the basic education program components of the formula as approved by the board for the 1992-1993 fiscal year must first be approved by the commissioners of education and finance and administration;

**(B)** The board shall establish a review committee for the Tennessee basic education program (BEP). The committee shall include the executive director of the state board of education, the commissioner of education, the commissioner of finance and administration, the comptroller of the treasury, the director of the Tennessee advisory

commission on intergovernmental relations, the chairs of the standing committees on education of the senate and house of representatives, and the director of the office of legislative budget analysis, or their designees. The board shall appoint at least one (1) member from each of the following groups: teachers, school boards, directors of schools, county governments, municipal governments that operate LEAs, finance directors of urban school systems, finance directors of suburban school systems and finance directors of rural school systems. The BEP review committee shall meet at least four (4) times a year and shall regularly review the BEP components, as well as identify needed revisions, additions or deletions to the formula. The committee shall annually review the BEP instructional positions component, taking into consideration factors including, but not limited to, total instructional salary disparity among LEAs, differences in benefits and other compensation among LEAs, inflation, and instructional salaries in states in the southeast and other regions. The committee shall prepare an annual report on the BEP and shall provide the report on or before November 1 of each year, to the governor, the state board of education and the select oversight committee on education. This report shall include recommendations on needed revisions, additions and deletions to the formula, as well as an analysis of instructional salary disparity among LEAs, including an analysis of disparity in benefits and other compensation among LEAs;

(5  
)

**(A)** Adopt policies governing:

- (i) The qualifications, requirements and standards of and provide the licenses and certificates for all public school teachers, principals, assistant principals, supervisors and directors of schools;
- (ii) The revocation of licenses and certificates;
- (iii) Evaluation of teachers, principals, assistant principals, supervisors and directors of schools; and
- (iv) Retraining and professional development;

**(B)** The board may adopt a policy establishing levels of compensation that are correlated

to levels and standards of teacher competency approved by the board;

- (6)** Set policies for graduation requirements in kindergarten through grade twelve (K-12);
  
- (7)** Set policies for the review, approval or disapproval and classification of all public schools, kindergarten through grade twelve (K-12), or any combination of these grades;
  
- (8)** Set policies governing all curricula and courses of study in the public schools;

DR. GARY L. NIXON  
EXECUTIVE DIRECTOR



PHIL BREDESEN  
GOVERNOR

TENNESSEE  
STATE BOARD OF EDUCATION  
9TH FLOOR, ANDREW JOHNSON TOWER  
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NASHVILLE, TN 37243-1050  
(615) 741-2966  
FAX: (615) 741-0371  
www.state.tn.us/sbe

January 6, 2010

The Honorable Phil Bredeesen, Governor  
First Floor, State Capitol  
Nashville, TN 37243

Dear Governor Bredeesen:

The purpose of this letter is to outline the process for the approval of the Common Core Standards by the State Board of Education. We are currently planning to present the adjustments to Tennessee's standards to assure alignment with and adoption of the Common Core Standards on first reading at the April 16, 2010 Board meeting. The next quarterly Board meeting is scheduled for August 6, 2010, which is later than the August 2, 2010 date that is required for approval of the Common Core Standards.

As the Executive Director of the Tennessee State Board of Education, I am committing to call a special meeting of the State Board of Education during the last two weeks of July, 2010 to present the Common Core Standards for final approval prior to the August 2, 2010 adoption deadline.

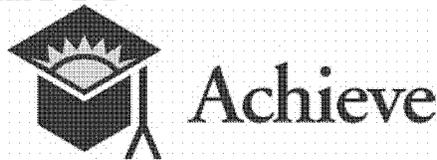
Please let me know if I can be of further assistance.

Respectfully,

A handwritten signature in black ink that reads "Gary Nixon". The signature is written in a cursive style.

Gary Nixon, Ed.D.  
Executive Director

GLN/pc



### **Comparing Student Performance on Common College- and Career-Ready Standards Statement of Principles**

Our state is committed to an education system that prepares all of our students for success in college, careers, and life in the 21<sup>st</sup> century. We believe in setting *high* expectations for our students and schools that are firmly grounded in what it takes to be successful. We believe in setting *common* expectations across states, and are committed to working with like-minded states to adopt common standards and assessment systems anchored in college and career readiness.

Our state supports common assessments that meet the following principles:

- Aligned to the common core standards
- Anchored in college and career readiness
- Allow for comparison of student results across a maximum number of states
- Enable to the maximum extent possible benchmarking performance against NAEP and international standards
- Cover grades 3 through 8 and high school, including college/career ready measures at the end of high school
- Address three overarching goals: measuring student proficiency, ensuring accountability, and improving teaching and learning
- Enable measurement of student achievement and growth
- Are summative in nature but designed in a manner consistent with more comprehensive assessment systems that also include interim and formative assessments
- Provide valid and reliable measures of student knowledge, understanding of, and ability to apply crucial concepts through the use of a variety of item types and formats
- Leverage technology and economies of scale in order to minimize costs and create assessments that accurately measure student performance
- Provide for timely release of results to better inform practice and support decision-making
- Include the assessment of students identified with disabilities and English language learners and to the extent feasible, use universal design principles

We understand that Achieve will work with other national partners to build on the work of the common core standards and convene states to pursue a common assessment strategy that meets these principles. We are prepared to work with Achieve and its partners in as large a consortium of states as possible to explore the development and implementation of summative assessments that are aligned to the common core standards, that can be used within states as part of statewide assessment systems, and that will enable comparability of results across states. We understand that in pursuing this effort, Achieve and its partners will work closely with other consortia that have been formed to explore areas of common ground and determine whether and how efforts could be combined to achieve comparability of results.

**ASSESSMENT CONSORTIUM  
MEMORANDUM OF AGREEMENT**

This Memorandum of Agreement (“MOA”) is entered into by and between the following States: Arkansas, Colorado, Florida, Illinois, Indiana, Louisiana, Massachusetts, Minnesota, North Carolina, Ohio, Pennsylvania, Tennessee, and Virginia (collectively the “Participating States” or “Assessment Consortium”).

**1. Purpose.** The purpose of this MOA is to form a coalition of states with a shared vision for common assessments that are internationally-benchmarked; build toward college and career readiness by the time of high school graduation; measure a common core of standards for K-12 pursuant to the National Governors Association Center for Best Practices Memorandum of Understanding (“Common Core Standards”); utilize technology for efficiency of delivery and scoring; and are cost effective. An outcome of this shared vision will be a proposal for the federal Race to the Top Assessment Competition in 2010 to develop and implement common, high-quality assessments aligned with the Common Core Standards.

**2. Lead State.** The Participating States agree that Florida shall be designated as the Lead State, and Florida accepts the designation. The Lead State shall manage the work process under this MOA and competitively bid, when determined by the Assessment Consortium, for all services and commodities required to achieve the objectives of this MOA. In particular, the Lead State shall:

- a. Direct and oversee meetings of the Assessment Consortium and set the agendas.
- b. Pursuant to the laws of the Lead State, procure any necessary goods and services needed to carry out the intent of this MOA, using the most reasonable form of competitive solicitation and by quotes if no competitive solicitation is required.
- c. Although the Lead State shall manage and administer the primary contracts, each Participating State shall be a party to any multi-state agreement, by direct execution or by addendum. However, each Participating State shall be responsible for enforcing their portion of the work on any multi-state contract. In addition, the Lead State shall not be responsible for any of the contractual obligations of a Participating State.
- d. Coordinate, assist, and task the Management Entity as may be reasonably necessary.
- e. Serve as liaison with the U.S. Department of Education, and all other third parties on behalf of the Assessment Consortium.
- f. The Lead State may resign by notifying the Participating States at least 30 days in advance by written notice. A majority of the Participating States will then appoint a new Lead State.

g. The Participating States may remove the Lead State and appoint a new Lead State by vote of a majority of the Participating States. Upon the resignation or removal of the Lead State, all contracts and other rights and obligations of the Lead State shall be assigned to the new Lead State.

**3. Management Entity.** Services of a Management Entity will be procured and utilized to assist the Consortium in conducting its work. A majority vote of the Assessment Consortium is required to award a contract to the Management Entity.

The Management Entity shall perform the following services:

a. Assist the Lead State in coordinating and running the Assessment Consortium meetings, including acting as a facilitator at the meetings.

b. Perform research and draft reports necessary for developing Requests for Proposals for goods and services.

c. Assist the Lead State in procuring goods and services as agreed upon by Participating States.

d. Provide advice and grant-writing services to the Assessment Consortium to assist them in developing the proposal for the Race to the Top Assessment Competition.

e. Perform any other activities and services that are reasonably requested by the Lead State or any Participating State in order to achieve the purposes of this MOA.

**4. Scope of Work and Responsibilities of the Participating States.** Each Participating State in the Assessment Consortium shall adopt the Common Core Standards which were developed to be internationally benchmarked and to build toward college and career readiness by the time of high school graduation. The Assessment Consortium shall, if funded by Race to the Top Assessment Competition funds, develop common, high-quality assessments which are aligned with the Common Core Standards, utilize technology for efficiency of delivery and scoring, result in a common definition of proficiency, and are cost effective. In order to achieve these deliverables, the Assessment Consortium and the individual Participating States shall perform the following activities.

a. Each Participating State will adopt the Common Core Standards using their state-approved standards-adoption process.

b. The Assessment Consortium will meet to define the process for procuring the services of a Management Entity by April 30, 2010

c. The Assessment Consortium will develop and submit a proposal for funding through the Race to the Top Assessment Competition by June 2010 or the due date established by the U.S. Department of Education.

d. The Assessment Consortium will meet, with the assistance of a Management Entity, to review the status of each Participating State's Common Core Standards adoption by August 2, 2010.

e. The Assessment Consortium will develop a plan by December 10, 2010, for sharing of test items and tasks aligned with the Common Core Standards for use in Participating States' LEAs for formative and interim assessment purposes.

**5. Meetings and Quorum.** Meetings may be called by the Lead State or a majority of the Participating States. Meetings may either be in person or by conference call. Written notice of the meeting shall be sent to all Participating States at least 48 hours in advance, by email, facsimile, or certified mail.

a. A Quorum for any meeting shall consist of designated representatives from at least two-thirds of the Participating States. An individual state may appear by phone and be counted as part of the Quorum. Each Participating State shall have one vote.

b. All actions or decisions of the Assessment Consortium shall, unless otherwise designated elsewhere in this MOA, require a majority vote to pass.

c. Actions and decisions of the Assessment Consortium may also be taken by written directive executed by a majority of the Participating States without a formal meeting.

d. Notwithstanding the above, any amendment to this MOA shall require a unanimous vote of the Participating States.

**6. Exam Results.** Each Participating State shall own their respective assessment results and any other documentation which are developed as a result of any particular state assessment. All Participating States shall jointly own all deliverables produced as a result of this MOA, and shall have the right to utilize all deliverables and documents produced under this MOA for the benefit of their respective state, subject to all state and federal confidentiality laws and regulations.

**7. Termination and Withdrawal of Parties.**

a. This MOA may be terminated by agreement of all the Participating States.

b. Any Participating State may withdraw from this MOA upon thirty days written notice to all Participating States. In addition, any Participating State may immediately withdraw from this MOA upon notice of a loss of state funding to support the assessment work. A notice specifying the reasons for immediate termination shall be sent as soon as possible after the termination to the Participating States.

c. A withdrawn Participating State may only participate in a contract or agreement it executed prior to its withdrawal from the Assessment Consortium and this MOA.

d. A Participating State may have their rights hereunder terminated in the event it fails to perform or comply with any of its material covenants or obligations contained in this MOA, and such failure is not remedied and cured in all material respects within fifteen (15) days after the date written notice of such failure is delivered to the Participating State by the Lead State. A termination for default under this provision shall effectively terminate all contracts and agreements entered into by the terminated Participating State which have been procured through this MOA. Upon demand by the Lead State, the terminated Participating State shall provide written proof that such agreements have been terminated. However, the determination of default must be made by a majority of the Participating States before the Lead State is authorized to take any action against a defaulting Participating State.

**8. Confidential Information.** The Participating States warrant they shall not disclose to any third party any personally identifiable information about any student, without the written consent of the Participating State that owns the data. This applies to information which came from any record or report used by the Assessment Consortium or from any education record which is subject to the Family Educational Rights and Privacy Act, 20 U.S.C. Section 1232g. The term “educational record” shall have the meaning prescribed in 20 U.S.C. Section 1232g(a)(4).

**9. Expenses.** It is the intent of the Participating States to seek funding from various third parties for the development of the common, high quality assessments and other shared deliverables under this MOA, and for the cost of a Management Entity. However, prior to obtaining such funds, the Participating States agree that they shall equally share these expenses. Decisions on whether to incur a shared expense and the amount to incur shall be decided by a majority vote of the Assessment Consortium. Notwithstanding the above, the Participating States also agree that they shall individually pay for any state specific expenses, including travel and the costs related to any state’s use of an assessment.

## **10. Miscellaneous Provisions.**

**a. Rules of Interpretation.** The Participating States waive application of the principle of contract construction that ambiguities are to be construed against a contract’s drafter, and agree that this MOA is a joint product of all Participating States.

**b. Assignment.** No Participating State may assign any of its rights or obligations hereunder without the prior written consent of the Assessment Consortium.

**c. Additional Documentation.** Each Participating State agrees to take such action and to execute and deliver all documents necessary to carry out the terms and conditions of this MOA.

**d. Invalidity and Severability.** In the event that any provision of this Contract shall be held to be invalid, such provision shall be null and void. The validity of the remaining provisions of the MOA shall not in any way be affected thereby.

**e. Counterparts.** This Contract maybe executed in multiple counterparts, each of which shall be deemed to be an original and all of which shall constitute one contract, notwithstanding that all parties are not signatories to the original or the same counterpart, or that signature pages from different counterparts are combined, and the signature of any party to any counterpart shall be deemed to be a signature too and may be appended to any other counterpart.

**f. Authority to Execute.** Each Participating State warrants that it has the authority to enter into this MOA, and the party executing hereunder has the full authority to bind that state.

**IN WITNESS WHEREOF,** the Participating States have, through their duly authorized representative, executed this Memorandum of Agreement, which shall be effective, as of the last signature date below.

**STATE OF ARKANSAS**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**STATE OF COLORADO**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**STATE OF FLORIDA**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**STATE OF ILLINOIS**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**STATE OF INDIANA**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**STATE OF LOUISIANA**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**COMMONWEALTH OF MASSACHUSETTS**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**STATE OF MINNESOTA**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**STATE OF NORTH CAROLINA**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**STATE OF OHIO**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**COMMONWEALTH OF PENNSYLVANIA**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**COMMONWEALTH OF VIRGINIA**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**STATE OF TENNESSEE**

By: 

Name: Timothy K. Webb, Ed.D.

Title: Commissioner

Date: 01/13/2010

**MOU for a State Consortium Developing Balanced  
Assessments of the Common Core Standards**

This Non-Binding Memorandum of Understanding (“MOU”) is entered into by and between the Balanced Assessment Consortium and \_\_\_\_\_Tennessee\_\_\_\_\_ (“Your State”). The purpose of this agreement is to establish a framework of collaboration for states in supporting assessment of the common core standards. The agreement also articulates tasks in support of a Multi-State Consortium in its implementation of an approved Standards and Assessment Section of a Race to the Top grant. The MOU outlines a set of working principles, the roles of states and local districts within the consortium, and a set of tasks that the Consortium would undertake.

**Working Principles**

A consortium of states developing a balanced assessment system for evaluating the common core standards would start with working principles derived from an examination of successful state systems in the U.S. and high-achieving systems internationally. For example:

**1) Assessments are grounded in a thoughtful, standards-based curriculum and are managed as part of a tightly integrated system of standards, curriculum, assessment, instruction, and teacher development.**

- Curriculum guidance is lean, clear, and focused on what students should know and be able to *do* as a result of their learning experiences. Assessment expectations are described in the curriculum frameworks or course syllabi and are exemplified by samples of student work.
- Curriculum and assessments are organized around a well-defined set of learning progressions within subject areas. These guide teaching decisions, classroom-based assessment, and external assessment.
- Teachers and other curriculum experts are involved in developing curriculum and assessments which guide professional learning and teaching. Thus, everything that comes to schools is well-aligned and pulling in the same direction.

**2) Assessments elicit evidence of actual student performance on challenging tasks that prepare students for the demands of college and career in the 21<sup>st</sup> century.** Curriculum and assessments seek to teach and evaluate a broad array of skills and competencies that generalize to higher education and work settings. They emphasize deep knowledge of core concepts within and across the disciplines, including problem solving, analysis, synthesis, and critical thinking, and include essays and open-ended tasks and problems, as well as selected response items.

**3) Teachers are involved in the development of curriculum and the development and scoring of assessments.** Scoring processes are moderated to ensure consistency and to enable teachers to deeply understand the standards and to develop stronger curriculum and instruction leading to greater student proficiency. The moderated scoring process is a strong professional learning experience that helps drive the instructional improvements that enable student learning, as teachers become more skilled at their own assessment practices and their development of curriculum to teach the standards. The assessment systems are designed to increase the capacity of teachers to prepare students for the contemporary demands of college and career.

4) **Assessments are structured to continuously improve teaching and learning.** Assessment *as, of, and for* learning is enabled by several features of assessment systems:

- The use of school-based, curriculum-embedded assessments provides teachers with models of good curriculum and assessment practice, enhances curriculum equity within and across schools, and allows teachers to see and evaluate student learning in ways that can feed back into instructional and curriculum decisions.
- Close examination of student work and moderated teacher scoring of both school-based components and externally developed open-ended examinations are sources of ongoing professional development that improve teaching.
- Developing both school-based and external assessments around learning progressions allows teachers to see where students are on multiple dimensions of learning and to strategically support their progress.

5) **Assessment and accountability systems are designed to improve the quality of learning and schooling.** Assessments aim to encourage and support the learning of ambitious intellectual skills in the way they are designed and used for informing teaching, learning, and schooling. Accountability systems publicly report outcomes and take these into account, along with other indicators of school performance, in a well-designed system focused on continual improvement for schools.

6) **Assessment and accountability systems use multiple measures to evaluate students and schools.**

Multiple measures of learning and performance are used to evaluate skills and knowledge. Students engage in a variety of tasks and tests that are both curriculum-embedded and on-demand, providing many ways to demonstrate and evaluate their learning. These are combined in reporting systems at the school and beyond the school level. School reporting and accountability are also based on multiple measures. Assessment data are combined with other information about schools' resources, capacities, practices, and outcomes to design intensive professional development supports and interventions that improve school performance.

7) **New technologies enable greater assessment quality and information systems that support accountability.**

New technologies enhance and transform the way the assessment process is developed, delivered, and used, providing adaptive tools and access to information resources for students to demonstrate their learning, and providing appropriate feedback by supporting both teacher scoring and computer-based scoring (now possible for both selected response and some forms of constructed-response items). By using technology to reduce costs for delivery of more open-ended assessment formats, scoring, and reporting, resources can be redirected to improvements in assessment quality.

Technology also organizes data about student learning, enhancing system accountability for instruction and reporting by providing more efficient, accurate, and timely information to teachers, parents, administrators, and policymakers. Technology helps to integrate information at as part of longitudinal data systems, contributing to a rich profile of accomplishment for every student.

### **State and Local Roles within a Consortium**

**States working within the Consortium would:**

- Adopt and augment the Common Core standards as appropriate to their context.

- Create and deploy curriculum frameworks that address the standards—drawing on exemplars and tested curriculum models.
- Build and manage an assessment system that includes both on-demand and curriculum-embedded assessments that evaluate the full range of standards and allow evaluation of student progress. The Consortium may develop both joint assessments (commonly implemented by states) as well as other assessment tasks and items linked to the standards (and grounded in curriculum units) that can be incorporated into states’ individual assessment plans for formative or summative purposes.
- Develop rubrics that embody the standards, and clear examples of good work, benchmarked to performance standards.
- Create oversight / moderation / audit systems for ensuring the comparability of locally managed and scored assessment components.
- Ensure that teacher and leader education and development infuse knowledge of learning, curriculum, and assessment.
- Implement high-quality professional learning focused on examination of student work, curriculum and assessment development, and moderated scoring.

**Districts and schools would:**

- Examine the standards and evaluate current curriculum, assessment, and instructional practice in light of the standards.
- Evaluate state curriculum guidance, and further develop and adapt curriculum to support local student learning, select and augment curriculum materials, and continually evaluate and revise curriculum in light of student learning outcomes.
- Incorporate formative assessments into the curriculum, organized around the standards, curriculum, and learning sequences to inform teaching and student learning.
- Participate in administering and scoring relevant portions of the on-demand and curriculum-embedded components of the assessment system, and examining student work and outcomes.
- Help design and engage in professional development around learning, teaching, curriculum, & assessment.
- Engage in review and moderation processes to examine assessments and student work, within and beyond the school.

**Tasks the Consortium Would Undertake**

The consortium of states would build on successful efforts already launched in a number of states, seeking to integrate the best knowledge and exemplars from existing efforts, so as to use resources efficiently, take advantage of well-tested approaches, and avoid reinventing the wheel. It would bring together leading curriculum and assessment experts to advise and support efforts to create a system for evaluating the Common Core, building on the most credible and well-vetted knowledge available in the field. With these supports, the Consortium could:

**1. Support the Development of Curriculum Frameworks:** When the Common Core standards have been released, vetted, and adopted, consortia of states would work with curriculum and assessment experts to develop (or adapt from previously successful work) curriculum frameworks, syllabi, and other materials mapped to the standards. There has been enormous investment in the United States in high-quality curriculum, for example through NSF and other

organizations at the national level, and in many states and districts. Other English-speaking nations have also developed high quality curriculum materials linked to standards and learning progressions that could be evaluated in this process. This effort would inventory and cull from efforts with a strong evidence base of success to support states in building out curriculum frameworks around which they can organize deeper curriculum development at the local level, state and local assessment development, instructional supports, and professional development.

**2. Create a Digital Curriculum and Assessment Library:** The results of this effort should ultimately be made available on-line in a digital platform that offers materials for curriculum building and, eventually, model syllabi for specific courses linked to the standards, formative and summative assessment tasks and instruments linked to the curriculum materials, and materials for training teachers and school leaders in both strategies for teaching specific curriculum concepts / units and assessment development and scoring. In addition, as described below, an electronic scoring platform supporting training, calibrating, benchmarking, and reporting would be developed and made available across the states.

**3. Develop State and Local Assessments:** The state consortium would work to create a **common reference examination, which includes selected-response, constructed response and performance components** aimed at higher-order skills, linked to the Common Core standards for grades 3-8, like the NECAP assessment recently developed by a set of New England states. This assessment would be designed to incorporate more rigorous and analytic multiple-choice and open-ended items than many tests currently include and would include strategically selected curriculum-embedded performance assessments at the classroom level that can be part of the summative evaluation, while also providing formative information.

These curriculum-embedded components would be developed around core concepts or major skills that are particularly salient in evaluating students' progress in English language arts and mathematics. (Eventually, work on science could be included.) Exemplars to evaluate and build upon are already available in many states and in nations like England that have developed a set of "tests and tasks" for use in classrooms that help teachers evaluate students' learning in relation to well-described learning progressions in reading, writing, mathematics, and other subjects.

Curriculum-embedded components would link to the skills evaluated in the "on-demand" test, allowing for more ambitious tasks that take more time and require more student effort than can be allocated in a 2 or 3-hour test on a single day; these components would evaluate skills in ways that expect more student-initiated planning, management of information and ideas, interaction with other materials and people, and production of more extended responses that reveal additional abilities of students (oral presentations, exhibitions, and product development, as well as written responses) that are associated with college and career success.

In the context of summative assessments, curriculum-embedded tasks would be standardized, scored in moderated fashion, and scores would be aggregated up to count as part of the external assessment. Curriculum-embedded assessments would also include marker tasks that are designed to be used formatively to check for essential understandings and to give teachers useful information and feedback as part of ongoing instruction. Thoughtful curriculum guidance would outline the scaffolding and formative assessment needed to prepare students to succeed on the summative assessments.

All components of the system would incorporate **principles of universal design** that seek to remove construct-irrelevant aspects of tasks that could increase barriers for non-native English speakers and students with other specific learning needs. In addition, designers who are skilled at developing linguistically supportive assessments and tests for students with learning disabilities would be engaged from the beginning in considering how to develop the assessments for maximum access, as well as how to design appropriate accommodations and modifications to enable as many students as possible to be validly assessed within the system.

The emphasis on evaluating **student growth over time** and on tying standards to a conception of learning progressions should encourage a growth oriented frame for both the “on-demand” examination and the more extended classroom assessments. The Consortium may consider the viability of incorporating computer-based adaptive testing that creates vertically scaled assessments based on the full range of learning progressions in ELA and math. This would allow students to be evaluated in ways that give greater information about their abilities and their growth over time. This approach would not preclude the evaluation of grade-level standards, which could be part of any students’ assessment, nor would it preclude a significant number of constructed response, open-ended items, as the technology for machine-scoring structured open-ended items is now fairly well-developed. Strategic use of partial teacher scoring for these items would also be a desirable element of the system to support teachers’ understanding of the standards and assessments, and their planning for instruction.

The emphasis on evaluating student growth should also inform the development of the curriculum-embedded elements of the system, which should be selected or developed to strategically evaluate students’ progress along the learning continuum. Centrally developed tasks administered and scored by teachers with moderation (see below), using common rubrics, would be part of the set of reported scores. In states with experience and capacity, it may be possible to begin to incorporate information about student learning that teachers develop from their own classroom evidence, linked to the standards and learning progressions and guided by the curriculum frameworks. This could be an optional aspect of the Consortium’s work for states and communities with interest and capacity.

At the **high school level**, the Consortium might explore one or both of two options for assessment:

- **Course- or syllabus-based systems** like those in England, Australia, Singapore, Hong Kong, Alberta (Canada), as well as the International Baccalaureate. Generally conceptualized as end-of-course-exams in this country, this approach should become a more comprehensive course assessment approach like that pursued in these other countries. Such an approach would include within-course performance assessments that count toward the examination score, as well as high-quality assessment end-of-course components that feature constructed response as well as selected response items. Within-course performance assessments would tap central modes of inquiry in the disciplines, ensuring that students have the opportunity to engage in scientific investigations, literary analyses and other genres of writing, speaking and listening; mathematical modeling and applications; social scientific research. Such an approach might require an ELA and math assessment at a key juncture that evaluates an appropriate benchmark level for high school standards, and then, as in high-achieving nations, allow for pursuit of other courses/ assessments that are selected by students

according to their interests and expertise. These could serve as additional information on the diploma for colleges and employers.

- **Standards-driven systems** that might include a more comprehensive benchmark assessment in ELA and mathematics complemented by collections of evidence that demonstrate students' abilities to meet certain standards within and across the disciplines. This set of assessments would allow more curriculum flexibility in how to meet the standards. Systems like these are used in some provinces in Canada and Australia, in states like Rhode Island, Wyoming, Nebraska, and New Hampshire, and in systems of schools like the New York Performance Standards Consortium, the Asia Society, and Envision Schools. Sometimes these sets of evidence are organized into structured portfolios, such as the Technology portfolio in New Hampshire and the broader Graduation portfolios in these sets of schools that require specific tasks in each content area, scored with common rubrics and moderation.
- **A mixed model** could combine elements of both course- and standards-driven models, allowing some demonstrations of proficiency to occur in any one of a range of courses (rather than a single, predetermined course) or even outside the bounds of a course, like the efforts by some states to allow students to pass courses via demonstrations of competence rather than seat time (e.g. NH, OH). Such a system could also include specific components intended to develop and display research and inquiry skills that might also be interdisciplinary, such as the Project Work requirements in England, Singapore, and the International Baccalaureate, and the Senior Project requirements in Pennsylvania and Ohio.

**4. Develop Moderation and Auditing Systems for Teacher-Scored Work:** The consortium would develop protocols for managing moderation and auditing systems and training scorers so as to enable comparable, consistent scoring of performance assessments. In other nations' and states' systems that include these features routinely, procedures have been developed to ensure both widespread teacher involvement – often as part of professional development time – and to create common standards and high levels of reliability in evaluating student work. A range of models are possible, and the consortium would serve as a resource to individual states in developing and implementing strong, efficient approaches.

**5. Develop Technology to Support the Assessment System:** Technology should be used to enhance these assessments in a number of ways: by delivering the assessments; in on-line tasks of higher-order abilities, allowing students to search for information or manipulate variables and tracking information about the students' problem-solving processes; in some cases, scoring the results or delivering the responses to trained scorers / teachers to assess from an electronic platform. Such a platform may also support training and calibration of scorers and moderation of scores, as well as efficient aggregation of results in ways that support reporting and research about the responses. This use of technology is already being used in the International Baccalaureate assessment system, which includes both on-demand and classroom-based components.

In order to gain the efficiency and cost benefits of machine scoring and the teaching and learning benefits of teachers' moderated scoring, a mixed system could be developed where computer-based scoring is incorporated on constructed response tasks where useful – though teachers would score some of these tasks for anchoring and learning purposes – while other tasks that require human scoring engage most teachers in scoring to support improvements in instruction.

**RESPONSIBILITIES OF ALL SEAs PARTICIPATING IN THE CONSORTIUM**

- 1) Each participating SEA in the Consortium will appoint a key contact person.
- 2) These key contacts from each State will maintain frequent communication with the parties administering the Balanced Assessment Consortium to facilitate cooperation under this MOU.
- 3) Participating SEA grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the whole grant period.

This Non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

**SEA Superintendent/- Participating State  
Chief/Commissioner (or equivalent authorized signatory)**

*Timothy K. Webb*

01/12/10

Signature

Date

Timothy K. Webb, Ed.D.

Commissioner

Print Name

Title

**Please email this signed page to**

**Tammy Morrill  
Tammy.Morrill@maine.gov**

**\*\*PLEASE email this signed page only by January 7, 2010\*\***

## Summative Multi-State Assessment Resources for Teachers and Educational Researchers (SMARTER) Memorandum of Understanding

This non-binding Memorandum of Understanding (MOU) is entered into by and between the states of Delaware, Hawaii, Idaho, Nebraska, Oregon, Tennessee, Utah, Washington, Wisconsin and Wyoming to initiate a consortium of states (Consortium) to serve as a framework of collaboration as required to submit a proposal for a Multi-State Consortium Common Assessment Race to the Top grant. The working title for the proposal is the “Summative Multi-State Assessment Resources for Teachers and Educational Researchers” (SMARTER). In the event the proposal is approved and fully funded by the U.S. Department of Education, the final proposal will serve as the official agreement.

The signatory states shall be referred to as “Lead States” and hereby authorize Oregon to be the signatory for the Lead States in entering into MOUs with additional states that desire to participate under the same terms (Participating States). The terms of the MOU among the Lead States and between the Lead States and subsequent Participating States are set forth below.

1. States in the Consortium will assign a key contact to assist in the drafting of the proposal, and to the extent practicable will engage their teachers, school and district administrators and institutions of higher education in the development and review of the proposal to ensure the design of the assessment system meets the needs of a variety of stakeholders.
2. States may withdraw from the Consortium prior to the establishment of the draft budget for the proposal. The anticipated date for the draft budget is 30 days before the proposal is due to the U.S. Department of Education.
3. States in the Consortium agree in principle to the following elements to be included in a proposal to the U.S. Department of Education:
  - a. The purpose of the proposal is to develop a high quality summative assessment system that is aligned to the Common Core Standards, mutually adopted by Consortium states.
  - b. The assessment system will use online adaptive tests, innovative item design and open-ended items to assess the full breadth of cognitive demand described by the Common Core Standards.
  - c. Proposal writing will be governed by staff from the Lead States that have agreed to this MOU. Governance protocols for proposal development will be established by 2/15/2010.
  - d. If funded, the assessment system will be governed by staff from states that are members of the Consortium, and will be guided with the support of selected technical experts. Governance protocols for the assessment system will be a deliverable of the grant.
  - e. The assessment system will include teachers, school and district administrators, state departments of education and institutions of higher education in the design, administration, scoring and reporting of the assessments.
  - f. States in the Consortium will report student, school, district and state results based upon a single common set of rigorous achievement standards. Additionally, states in the consortium may choose to report student achievement benchmarked to a variety of achievement standards including NAEP, international assessments, and benchmarks predictive of student success in college and careers.
  - g. States in the Consortium will use the summative assessment system to measure school and district effectiveness to meet federal accountability requirements
  - h. The assessments will be designed based on principles of Universal Design and will be consistent with professional standards as described by the APA/AERA/NCME *Standards for Educational and Psychological Testing*.
  - i. The Consortium will coordinate with the MOSAIC consortium as appropriate and with other interested multi-state formative and benchmark assessment initiatives so that schools and districts will have access to a variety of high quality instructionally supportive assessment options that together yield a coherent balanced assessment system.
  - j. The assessment system will use open source software applications accessible to any vendor procured by states in the Consortium.

- k. States in the Consortium will create and adhere to common administration guidelines including accommodations and allowable tools and assistive devices based on high quality research regarding student learning and assessment.
- l. Grant funds allocated to LEAs will in part be used to ensure participation opportunities for teachers. The estimated allocation and purpose of funds will be described in the budget section of the proposal.
- m. States in the Consortium will participate in common procurement practices and deliverables to the extent the procurements are directly related to Consortium-wide activities described in the proposal. Lead states will construct a procurement process taking into account minimum procurement standards used in all participating states.
- n. States in the Consortium will share a common reporting format consistent with a goal of aligning reporting systems.
- o. States in the Consortium will share common security protocols regarding test items.
- p. States in the Consortium will work with their institutions of higher education and teacher preparation institutions to ensure teachers are prepared to use and contribute to the summative assessment system.

This non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

**Lead State SEA Superintendent/Chief/Commissioner  
(or equivalent authorized signatory)**



01/05/2010

Signature

Date

Timothy K. Webb, Ed.D.

Commissioner

Print Name

Title

Please sign and date this agreement by no later than January 8<sup>th</sup>, 2010.

FAX signed copy to Tony Alpert at: (503) 378-5156 or email scanned copy to [Tony.Alpert@state.or.us](mailto:Tony.Alpert@state.or.us)

## MOSAIC

*Multiple Options for Student Assessment  
and Instruction Consortium*

### Memorandum of Understanding

This Non-Binding Memorandum of Understanding (“MOU”) is entered into by and between the lead state(s): Wisconsin, Nebraska, and Missouri, and Tennessee (“Your State”). The purpose of this agreement is to establish a framework of collaboration, as well as articulate tasks in support of a Multi-State Consortium in its implementation of an approved Standards and Assessment Section of a Race to the Top grant. States might choose to participate in this Consortium even if their Race to the Top grant application is not funded.

#### I. PROJECT PROPOSAL

##### A. PARTICIPATING SEA RESPONSIBILITIES

A Consortium of states proposes to build a balanced assessment system of formative and benchmark assessment in a Race to the Top grant application. A state might choose to participate in this agreement through funding of its own choosing. The name of the system to be built is Multiple Options (for) Student Assessment (and) Instruction Consortium (MOSAIC). The MOSAIC system will be designed to complement a summative assessment system aligned to the Common Core such as the one being proposed under the SMARTER Consortium or any other Consortia that may develop a summative assessment aligned to the Common Core.

The proposed Consortium tasks and activities described in the Race to the Top application include the tasks that follow below. States participating in the Consortium will need to determine which of the tasks they wish to undertake with this Consortium. This decision may be made after the submission of the MOU.

*Task 1.1.1 COMMON CORE:* **The consortium states will adopt the Common Core Standards.** Within one year of state adoption, all districts within the consortium states will have adopted the Common Core Standards, will have integrated the standards to their local curriculum, and will have aligned professional development to familiarize staff with the college and career-ready expectations.

*Task 1.1.2 PROFESSIONAL DEVELOPMENT—CURRICULAR INTEGRATION:* **The consortium states will develop and build professional development materials around the instructional integration of Common Core standards.** This will include curricular frameworks aligned to the Common Core, defining of learning progressions within content areas, materials on instructional strategies, and suggested interventions. All materials will be disseminated across the states within the consortium and made available in a web-banked system.

*Task 1.1.3 INSTRUCTIONAL SUPPORT SYSTEM:* **The consortium states will have access to a computerized system that will provide opportunities for districts to load the system with formative/local assessment tasks, items, and instructional materials including performance assessments. These can be shared across states, and customized for local use. All will be aligned with the Common Core and will be available electronically to students and teachers with timely data turn-around.**

*Task 1.1.4 STATE FLEXIBILITY:* **Each state will define the level at which districts/schools in their state participate in the formative/benchmark assessment system. This may vary from state to state, depending on how each state defines voluntary versus optional participation. (One level of required participation within a state might be to require the state’s persistently low performing schools and districts to participate in this comprehensive assessment system, and to require that student performance data be tracked over time for growth and improvement.)**

*Task 1.1.5 REPORT DEVELOPMENT:* **Each state will contribute to the development of district, school, and student-level performance reports on the Common Core. Reports will be generated in parent-friendly and teacher-friendly formats to track progress on the Common Core standards. Emphasis will be placed upon growth and improvement over time, with customized feedback about suggested next-steps based on the student’s performance.**

*Task 1.1.6 BENCHMARK ASSESSMENT SYSTEM:* **Each state will contribute to the development of a benchmark assessment item bank with the capabilities for adaptive testing. From this item bank, common diagnostic/benchmark tests will be developed across the “total package” consortia states through a consortia bid process to a single vendor. Each state will contribute field-tested items to the bank. This bank will be used to diagnose student strengths and deficiencies and serve as an “early warning” system. Common performance standards and cut scores for these diagnostic/benchmark tests will be set across the consortium of states. The common tests will be loaded into the computerized system for immediate data turn around. The common tests will be available to districts/schools within each state as defined by that state – varying levels of participation will require different cost to each state to implement, most likely on a per-pupil basis. (States participating at the Partner or Associate level may access items in the bank, but may not utilize the consortia-developed common assessments).**

*Task 1.1.7 PROFESSIONAL DEVELOPMENT—USING DATA TO IMPROVE INSTRUCTION:* **Each state will contribute to the development of hands-on training and workshop modules for educators that focus on user-friendly strategies to make data-informed instructional decisions based upon formative, benchmark, and summative assessment results. All materials will be disseminated across the collaborating states.**

The selection of tasks by each SEA participating in the Consortium will determine the level of participation of each respective state. There are three levels of participation that may be selected by each SEA in the Consortium. While the level of participation does not need to be selected at the time of signing the MOU, by its signature the state is indicating its interest in participating at a minimum of Level Three.

- **Level One: “Total Package”** – The state participates in **all seven tasks** with a common vendor, and shares in all resources available through the project, including all formative/benchmark assessments developed under the project. The state has an active role in developing, disseminating and sharing professional development tasks and materials.

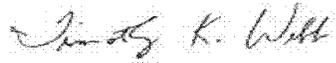
- **Level Two: “Partner”** – The state contributes to the item bank (**Tasks 1.1.1, 1.1.2, and 1.1.6**) and professional development materials, and may use components in their state for state-specific work. (ex: state does not use common assessments developed from the bank; instead, uses the bank to create their own assessment tools with a separate vendor)
- **Level Three: “Associate”** – The state contributes to the item bank, (**Task 1.1.6 only**) and may use components in their state for state-specific work. The state does not contribute to or have access to professional development components developed through the project.

**B. RESPONSIBILITIES OF ALL SEA PARTICIPATING IN THE CONSORTIUM**

- 1) Each participating SEA in the Consortium will appoint a key contact person for the Race to the Top grant.
- 2) These key contacts from each State and the lead state(s ) will maintain frequent communication to facilitate cooperation under this MOU.
- 3) Participating SEA grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the whole grant period.

This Non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

**SEA Superintendent/- Participating State  
Chief/Commissioner (or equivalent authorized signatory)**



01/05/2010

Signature

Date

Timothy K. Webb, Ed.D.

Commissioner

Print Name

Title

**Authorized Lead SEA Official - Lead State**

By its signature below, the lead state(s) hereby accepts the SEA as a Participating SEA in the Consortium

Official State Designee

Date

Print Name

Title

Please email this signed page  
by January 5, 2010 to

[lynette.russell@dpi.wi.gov](mailto:lynette.russell@dpi.wi.gov)

and  
or fax to

[pat.roschewski@nebraska.gov](mailto:pat.roschewski@nebraska.gov)

(Fax) 608.266.8770

and

(Fax) 402.471.4311

**\*\*PLEASE email this signed page only by January 5, 2010\*\***

Tennessee Race to the Top – Appendix B-3-1

**Table 1: Implementation and Development of New Standards and Assessments  
Reform Plan Criteria B(3)**

...re that Tennessee has a high-quality plan for supporting a statewide transition to and implementation of internationally benchmarked K-12 standards that ensure readiness by the time of high school graduation, and high-quality assessments (as defined in this notice) tied to these standards.

...es, the responsible parties will be the Tennessee Department of Education.

Standards development	Assessment development	On-site or in-person workshops	Special activities for school improvement teams	Online professional development	Special activities for Priority Schools
Alignment of current standards to new Common Core standards (spring)	Tennessee to participate in state consortia with multi-state participation:	Orientation/introduction to the new standards and assessments. Hold nine work sessions across the state to obtain practitioner input for alignment (July-August, approximately 1,300 participants)	Collaboration with higher education regarding teacher preparation institutions and new standards (see Appendix B-3-2)	Develop online offerings on Electronic Learning Center (ELC) with video, podcasts, and interactive online planning tools (August – December 2010)	Content specific sessions for Priority/Target schools
Adoption of newly developed standards by state Board of Education (July)	Consortium 1: Formative Assessment Consortium: Multiple Options for Student Assessment and Instruction Consortium (MOSAIC). 25 states as of Jan. 11	Common Core standards and assessments training for school/system-wide improvement teams. “Train the trainer” model provided (October), approximately 350 participants)	Collaboration with business, community, and parent representatives on new standards. Hold nine statewide Business Roundtable meetings for public to weigh in on new standards and ensure ownership (June-July, approximately 550 participants)		Ten regional meetings held to deliver content and practice model (March)
Contract with bid agencies to develop a timely and accurate online needs assessment to ensure quick feedback to meet immediate needs for professional development and other training activities. (October)	Consortium 2: Summative Assessment Consortium: Summative Multi-State Assessment Resources for Teachers and Educational Researchers (SMARTER) 22 states as of Jan. 11.	Tennessee School Counselor Summit for 136 school improvement teams from all	Dashboard professional development: dashboards		
Needs assessment – continuously assess impact					

re that Tennessee has a high-quality plan for supporting a statewide transition to and implementation of internationally benchmarked K-12 standards that ensure readiness by the time of high school graduation, and high-quality assessments (as defined in this notice) tied to these standards.

es, the responsible parties will be the Tennessee Department of Education.

Standards development	Assessment development	On-site or in-person workshops	Special activities for school improvement teams	Online professional development	Special activities for Priority Schools
<p>teacher use and student improvement. Given statewide to 1,734 schools.</p>	<p>Consortium 3: Performance Assessment Learning System Consortium – Achieve/NGA/CCSSO. 27 states as of Jan. 14.</p> <p>Consortium 4: Florida Common Assessment Consortium. 14 states as of Jan. 14.</p> <p>Consortium 5: Maine Balanced Assessment Consortium</p> <p>Consortium states work to include Tennessee in both formative and summative assessment systems aligned to the Common Core standards (initial consortium work January 2010)</p> <p>Proposal(s) written based on</p>	<p>districts (February – March 2011 approximately 2,000 school-based participants)</p> <p>Standards awareness professional development – “Unpacking the Standards” for school/district leadership teams. 13 – 15 regional work sessions held for 3-4 days (June-August, approximately 10,000-15,000 educators)</p> <p>Tennessee Reading Summits held for 136 school systems focused on adolescent literacy in middle and high schools (April, approximately 3,000 – 5,000 participants)</p>	<p>installed in schools and linked to statewide data warehouse. Professional development provided to data teams in 1,734 schools in 136 school systems to develop linkages to data and school/system improvement planning (June-April, approximately 9,000 participants).</p>		

re that Tennessee has a high-quality plan for supporting a statewide transition to and implementation of internationally benchmarked K-12 standards that ensure readiness by the time of high school graduation, and high-quality assessments (as defined in this notice) tied to these standards.

es, the responsible parties will be the Tennessee Department of Education.

Standards development	Assessment development	On-site or in-person workshops	Special activities for school improvement teams	Online professional development	Special activities for Priority Schools
	<p>final grant announcements (March 2010)</p> <p>All consortium work aligned with Race to the Top Assessment Program - new generation of assessments aligned to Common Core Standards (March 2010 grants announcement, June 2010 grants due, September 2010 grants awarded)</p> <p>Grant submitted June 2010 in collaboration with multi-state consortium</p> <p>Finalize consortium tasks, issue request for vendors for item banks, instructional modules, professional development, delivery methodology (online), item development and review</p>				

re that Tennessee has a high-quality plan for supporting a statewide transition to and implementation of internationally benchmarked K-12 standards that ensure readiness by the time of high school graduation, and high-quality assessments (as defined in this notice) tied to these standards.

es, the responsible parties will be the Tennessee Department of Education.

Standards development	Assessment development	On-site or in-person workshops	Special activities for school improvement teams	Online professional development	Special activities for Priority Schools
	<p>(March 2010 – March 2011)</p> <p>Consortium states submit items to the bank and review, common test forms developed and reviewed, reporting developed and reviewed, item loading for test adaptive delivery engine (March 2010 – August 2011)</p> <p>Baseline data on Common Core standards (August 2010)</p>				
	<p>Consortium states submit items to the bank and review, common test forms developed and reviewed, reporting developed and reviewed, item loading for test adaptive delivery engine (August 2011 – August 2012)</p>	<p>Second round of training workshops based on lessons learned/what worked. “Retrain the trainer” sessions (June-August, approximately 10,000 – 15,000 participants)</p> <p>New “train the trainer” workshops for systems with new teachers/administrators</p>		<p>ELC interactive and web-based professional development. Develop and display online effective practice networks through podcasts. Work with higher education to provide online coursework for pre-service and in-service teachers (August-</p>	<p>Additional training personnel with High Priority Schools (January-March, approximately 10,000 participants)</p> <p>Sessions targeted to High Priority schools and practices with</p>

re that Tennessee has a high-quality plan for supporting a statewide transition to and implementation of internationally benchmarked K-12 standards that ensure readiness by the time of high school graduation, and high-quality assessments (as defined in this notice) tied to these standards.

es, the responsible parties will be the Tennessee Department of Education.

Standards development	Assessment development	On-site or in-person workshops	Special activities for school improvement teams	Online professional development	Special activities for Priority Schools
	First "point of instruction" test delivery (September 2011)  First benchmark test (October 2011)  Second benchmark test (January 2012)  Third benchmark test (March 2012)  Early warning diagnostic reports (October 2011 – April 2012)  Set standards on all tests (April 2012)  Continued item/test development and implementation cycle (May	(July, approximately 1,500 participants)  "Standards application: what worked?": follow-up training for original cohort (May, approximately 10,000 participants)		January)	standards (October 2011 – January, approximately 550 schools systems)

re that Tennessee has a high-quality plan for supporting a statewide transition to and implementation of internationally benchmarked K-12 standards that ensure readiness by the time of high school graduation, and high-quality assessments (as defined in this notice) tied to these standards.

es, the responsible parties will be the Tennessee Department of Education.

Standards development	Assessment development	On-site or in-person workshops	Special activities for school improvement teams	Online professional development	Special activities for Priority Schools
	2012 – July 2012) Summative field testing (May 2012)				
	Continued item/test development and implementation cycle (August 2012–June 2013) Benchmark and summative testing and reporting continues (October 2012) Benchmark and summative testing and reporting continues (January 2013) Benchmark and summative testing and reporting continues (March 2013) Summative calibration/operational testing (May 2013)	Summer 2011 teacher cohort – retrain the trainer. Assemble onsite literacy, numeracy, and graduation coaches for one-week training with one-week follow-up sessions throughout the 2012 school year. Use turnaround specialists and other technical teams for training. (March, 1000+ participants)  Follow-up training for school/system-wide improvement teams: nine sites focused on effective practice, use of value-added, and achievement/non-academic data to inform improvement planning (February-April,		Finalize development of professional development portal with online coursework and podcasts on the ELC. (February)	“Bringing it Onsite technical teams visit H schools across the state to model effective practice and coach for success (October – November 2012) (participants)

re that Tennessee has a high-quality plan for supporting a statewide transition to and implementation of internationally benchmarked K-12 standards that ensure readiness by the time of high school graduation, and high-quality assessments (as defined in this notice) tied to these standards.

es, the responsible parties will be the Tennessee Department of Education.

Standards development	Assessment development	On-site or in-person workshops	Special activities for school improvement teams	Online professional development	Special activities for Priority Schools
	Summative standards setting (July 2013)	approximately 1,000 personnel)			
	Continued item/test development and implementation cycle (August 2013–June 2014)  Benchmark and summative testing and reporting continues (October 2013)  Benchmark and summative testing and reporting continues (January 2014)  Benchmark and summative testing and reporting continues (March 2014)	Workshops on research-based strategies: what worked and effective practices. Discussion groups in nine state regions for higher education and K-12 practitioners (April-May, 500 participants)	Lessons learned: culminating activities, research abstracts, publications, toolkits. (May)	Sessions on reading and numeracy strategies: trainings and demonstrations online and podcasts through ELC (March-May, approximately 1,500 participants)	

## Tennessee Race to the Top – Appendix B-3-2

**Table 2: Tennessee Higher Education Commission’s Plan  
for Data Training for Pre-Service Teachers  
Reform Plan Criterion B(3)**

	Year 1 2010-11	Year 2 2011-12	Year 3 2012-13	Year 4 2013-14
<p><b>Goal: To ensure that pre-service teachers enrolled in Tennessee’s institutions of higher education receive training in value-added assessment systems to assist their classroom activities, particularly instruction on Tennessee’s new standards.</b></p> <p><b>For all of these activities, the responsible party will be the Office of Academic Affairs, Tennessee Higher Education Commission, working in concert with providers selected competitively for the training module.</b></p>				
Phase of Development	<p>TVAAS training module used in schools available to teacher preparation programs for integration. The module will be developed by SAS and/or other chosen provider.</p> <p>Teacher preparation program personnel trained on implementation of training module</p> <p>State Board of Education licensure policy change</p>	Implementation of training module into pre-service curriculum	Continuation of training model into pre-service curriculum	Continuation of training module in pre-service curriculum
Teacher Preparation Program Personnel Trained	A minimum of 150 Teacher preparation program personnel trained *	Additional training as needed	Additional training as needed	Additional training as needed
Pre-Service Teachers Trained	n/a	2,000 Pre-service teachers**	4,000 pre-service teachers**	4,000 pre-service teachers**

\*Based on the number of teacher preparation programs and faculty teaching research methods courses.

\*\*Based on the number of teacher education graduates produced yearly. With approximately 4,000 annual graduates, we anticipate half of all students would receive training the first year of implementation, and by the second year all students would receive training annually.

# Tennessee Race to the Top – Appendix C-1-1

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## ABSTRACT

### *TLDS 360: Tennessee Longitudinal Data System 360 Degree View of the Student.*

The Tennessee Department of Education (TDOE) and the state of Tennessee propose to build a longitudinal student data system that will push the frontier in collection and utilization of P20 data and promote improvements in program administration and educational outcomes. The initiative will significantly increase teacher, school, and district-level use of near real time student data by employing sophisticated, as yet underutilized longitudinal data for predictive and retrospective identification of student achievement growth and academic risk factors. The project will complete the TLDS P20. TDOE's P12 LDS, supported by a 2006 Institute for Education Sciences grant, is already well developed. However, the current TLDS falls short of a complete, efficacious P20 information system. TDOE and its partner, the University of Tennessee Center for Business and Economic Research (CBER), will collaborate with the Tennessee Higher Education Commission (THEC) and the Department of Labor and Workforce Development (L&WD) to expand the P12 LDS to a P20 system. Tennessee's current P12 LDS and business intelligence functions satisfy basic expectations for interoperability and data delivery to local, district and state educators. Proposed improvements to existing business intelligence systems will dramatically expand the scope and depth of accessible data while maintaining stringent security standards. The project will develop a secure and adaptive database architecture that will integrate academic data on teacher/student relationships, attainment, course completion, and test scores, as well as data on health, children's services, mental health, and delinquency. This project envisions and plans to execute what is coined as *TLDS 360: Tennessee Longitudinal Data System 360 Degree View of the Student*. TLDS will incorporate data elements from other child-serving departments and will facilitate more robust characterizations of health, social welfare and behavioral conditions that influence students' progress from earliest child care, through P12 and higher education, and into the workforce.

The TDOE as the lead agency has partnered with CBER, an external academic research organization, which will serve as the conduit for receiving, aligning and coordinating data for reporting and research protocols to achieve project outcomes. As an established third party

contractor, CBER is prepared to integrate data from SAS, Inc. (the vendor for Tennessee's Value Added Assessment System) with data from TDOE, THEC, L&WD, as well as other child-serving departments and agencies. This coordinated approach will permit near- and long-term educational, administrative and research issues to be addressed, including the development of Early Warning Indicators and analyses of teacher effectiveness.

TLDS Governance will be a high-level organization representing all of the partner agencies committed to the success of the project. Initial Project Charters from relevant departments reflect commitments to negotiate data sharing agreements, though much of the data from TDOE, CBER, SAS, Inc., THEC, L&WD, and the Department of Human Services is already available for inclusion in the P-20. The project proposal capitalizes on the current TLDS foundation and positions it for expansion as a nationwide model for multidisciplinary support of student achievement. It corresponds to data system requirements for potential projects funded by Race To The Top grants.

## 6. *Project Narrative*

### TLDS 360: Tennessee Longitudinal Data System 360 Degree View of the Student

“If we remain wedded to the way education is currently provided we cannot imagine other ways...we need some imagination, some fantasy, some new ways of thinking - some magic in fact.” Hedley Beare, Professor of Education, Melbourne

'We imagine a school in which students and teachers excitedly and joyfully stretch themselves to their limits in pursuit of projects built on their vision...not one that succeeds in making apathetic students satisfying minimal standards.' Vision for Education: The Caperton-Papert Platform, Seymour

#### 6(a) Need for the Project

Tennessee perennially ranks near the bottom across the states in per pupil spending on elementary and secondary education. This low level of spending is linked, in part, to relatively low levels of per capita income and thus relatively low tax capacity. Accordingly, the state must ensure the greatest possible return to each tax dollar it generates. The state economy has long relied on manufacturing as the foundation of its economic base, but manufacturing jobs continue to disappear. This is not a new phenomenon—in 1968, more than one-third of Tennesseans were employed in manufacturing, but by 2008 only one in ten workers held a manufacturing job. The ever-increasing pace of economic transformation means the state has to work harder and harder to promote economic opportunity.

Education is the cornerstone of economic security for people and families and the economic development communities. Tennessee needs to improve educational outcomes and teacher effectiveness, promote efficiencies in public service administration and delivery, and ensure accountability with the public at large. The project proposed here would put important information in the hands of teachers to do their jobs better and enable research and reporting to meet these needs. In addition, the breadth of the proposed program of work—the length of the educational continuum captured in the database, linkages to state agencies outside of education

and data interoperability—would serve as model for other states developing longitudinal education databases.

### Background

Tennessee initiated formal development of a longitudinal data system in 2006 when TDOE received a Statewide Longitudinal Data Systems (SLDS) Grant from the Department of Education Institute of Education Science (#R372A05127). The intent was to enable the state to design, develop, and implement a statewide longitudinal data system, referred to as the Tennessee Longitudinal Data System (TLDS), to efficiently and accurately manage, analyze, disaggregate, and use individual student data, consistent with the Elementary and Secondary Education Act of 1965, as amended (20 U.S.C. 6301 et seq.).

TDOE conducted in-depth research into its K-12 information system environment, national standards and best practices in the field, and reviewed status of work already under way to address many of the grant objectives. TDOE engaged Oracle Technologies for the data warehouse infrastructure and Business Intelligence (BI) Reporting Tool and implemented a design bringing together a significant amount of education data in a common environment. TDOE also established procedures that have improved confidentiality of student records, implementing a new unique student identifier, so cross-system and cross-year data are immediately accessible. The process for assigning unique student identifiers does not involve school district interaction. Numbers are automatically generated at the State Education Agency (SEA) and downloaded into school district databases. Students' confidential information is stored in a separate database and only accessed when data are imported into the warehouse. In compliance with Family Educational Rights and Privacy Act (FERPA) regulations, TLDS provides student-level data for longitudinal analyses without disclosing student identifying information. The warehouse serves a range of users who report varying degrees of satisfaction with the current BI tool. A variety of users obtain data from the warehouse, including TDOE staff, Tennessee Higher Education Commission (THEC), external researchers, managers, and policymakers.

Tennessee's initial SLDS grant also facilitated and prompted connections between K-12, higher education and workforce data. Through a partnership among TDOE, THEC and CBER, a teacher data warehouse was created utilizing the TDOE warehouse data and connecting TDOE data on teacher placement with THEC data on teacher preparation and CBER workforce data. The creation of the teacher data warehouse provides a platform for the next phase of TLDS growth.

Tennessee envisions the next iteration of TLDS as a primary driver of data and analysis to enhance the state's efforts on teacher effectiveness, supporting a P-20 system, revamping and integrating standards and assessments and better aligning targeted interventions. This project will allow these outcomes by addressing four significant needs of the state: First, to train Local Education Authorities statewide to fully utilize the K-12 SAS-based data and expanded data available through the P-20 system; second, to complete its P-16 and P-20 system; third, to advance to a 360 degree view of its students (8. *Appendix A2*); and fourth, to enhance performance across state agencies.

(1) Fully utilize K-12 TLDS data.

It has been well documented that educational value-added assessment accounts for any influence of socio-economic factors that are consistent across time, *if* the assessment is based on multivariate, longitudinal analyses of each student's entire vector of prior academic achievement scores. Tennessee has an established history of research about accelerators and impediments to student progress already running at the teacher level. Interface allows authorized users to access results from analyses that measure the impact of districts, schools and teachers on student academic progress by subject level and by achievement level of students, plus individual student projections to a variety of academic milestones students face. Thus, these results offer educators the opportunity to focus on effective educational delivery, which will result in appropriate academic progress for all students.

However, there are unexpected environmental conditions that can alter academic trajectories of individual students. Examples: Entry into protective custody, incarceration of a parent, family

lost jobs, death or serious illness of a parent or other care giver. Any of these would most likely have an unsettling effect on a student's capacity to engage in appropriate academic behaviors.

Building on expertise accumulated through years of measuring of schooling influences on student academic progress and making projections for future student success, this proposal will link measurement expertise across state agencies to identify combinations of strategies that are successfully neutralizing currently unpredicted external forces for students. A 360 degree student view (8. *Appendix A1* and described more fully in (3)) and dashboards to support this proposal go beyond information sharing across state agencies. Dashboards will overlay the state's evaluation of coordinated inter-agency efforts with empirical research tied to student outcomes.

Tennessee has in place an infrastructure to deliver to educators indicators collected within the school environment through a user-friendly interface. Thousands of Tennessee teachers and principals already have responsibility-specific accounts to a secure-access drill down delivery system. With the state's commitment to increase access to all appropriate school personnel by fall 2010, the TVAAS restricted website is a reasonable, cost effective solution to delivery of the 360 degree student view for educational uses. Missing from this existing delivery is access to student/family data from other state agencies that can trigger additional educational support for students whose academic success is threatened or potentially compromised by unexpected events occurring outside of education. Proposed additions to the existing infrastructure will increase the capacity to do the following:

- 1) Provide principals and teachers with an early warning when situations that might impede student performance occur and activate a monitoring of a student's indicators of academic engagement (e.g., grades, discipline, and attendance). This would allow for additional intervention, should evidence accumulate to warrant it. Individual student multi-agency transfer into the system will trigger the following:
  - a. Appropriate principal/teacher notification of change in student environmental/family status (Phase I)
  - b. Appropriate automated monitoring of academic environment behaviors to assess accumulating risk (Phase I)

- c. Revised individual student probabilities for academic success, given an individual student's change in status. (Phase II)
- 2) Provide feedback to other appropriate state agencies regarding specific future academic risks that might exist due to an individual student's change in status (e.g., failure in grade/missing graduation target). (Phase I)
  - 3) Provide aggregate school level feedback to the school system so system level supports can be increased for specific schools as level of severity of potential academic failure increases. (Phase I)
  - 4) Provide aggregate school system level feedback to appropriate state agencies regarding counts of student/family overlapped services to improve efficiency of service delivery. (Phase I)
  - 5) Provide empirical evidence of whether integrated delivery of services has successfully impacted students' academic performance so the unexpected environmental intrusion is neutralized. (Phase II)
  - 6) Identify inter-agency actions that were successful and actions that need improving. (Phase II)
  - 7) Link to forecasting for future revenue requirements. The University of Tennessee Center for Business and Economic Research (CBER, the external research partner for this project) and SAS Institute partnership will also improve forecasting capacity within the state regarding need for targeted differentiated future funding to focus on measured effective interventions for highly at risk students. (Phase II)

Phase I will be accomplished in the initial year and Phase II will be added after appropriate research using data collected in Phase I.

(2) Complete TLDS P-16 and P-20: The second purpose of this application is to expand and improve TDOE's P -12 TLDS to a P-20 system to allow data to be collected, archived, combined, analyzed and used to promote data driven analyses and interventions for continuous improvement for learning standards, curricula, instructional processes and programs, professional development, post secondary educational programs and workforce program improvements. Combination of the current TDOE LDS, THEC systems and other data sources

will track an individual's academic and educational achievement, and also post-education and career experience. System tools will support practitioner and researcher needs and allow for retrospective (e.g., determination of which curricula were effective) and prospective uses of data (e.g., projections of future capacity and curricula requirements in the education system, predictive studies of student outcomes, and early warning signals for achievement challenges). The current status of the state's TLDS is displayed in *10. Appendix C.—Current Status of State's Longitudinal Data System*.

A core element of TLDS—the P-20 student-level database—will be an invaluable tool that can be used to address an array of important education, administrative issues and policy questions. In the context of teacher effectiveness, only standard metrics like student progression, dropout rates, test scores and value added assessments can be utilized. Extending P-20 to include child care prior to pre-kindergarten and to workforce outcomes, like employment status and earnings, will accommodate a richer analysis of teacher effectiveness by controlling for characteristics and experiences of children before they enter formal schooling and tracing through workforce outcomes that transpire after graduation.

**Data Quality:** The TLDS will implement a software application data cleansing tool (*10. Appendix A2*) through a third party trusted vendor which will securely move certain student records from a sending agency to a receiving agency authorized by FERPA. This system will track a student's lifecycle. When a student transfers from one district to another, that data will be moved from one LEA to the other LEA electronically – immediately and securely. The same will be true when a student moves to Postsecondary education. This data cleansing tool will also assist with student drop out data. Tennessee's dropout rate may be reduced because there will be better tracking of interstate enrollment.

This tool supports serve both the needs to PK-12 and Postsecondary systems. The system translates data from PK-12 sets into formats preferred by Postsecondary users, such as PESC High School Transcript XML or SPEEDE EDI.

P-16. The Tennessee Higher Education Commission (THEC) currently has a unit-record student information system with data back to 1995. The information comprising this system includes enrollment, financial aid, completions, and lottery scholarship information. This student information system has served THEC well in research and reporting on policy issues limited to public higher education.

THEC enjoys excellent working partnership with Tennessee Department of Education. The two agencies have collaborated on many research projects in the past. Having the two data systems separated, however, has limited the types of research studies that have been conducted up to this point. By merging the data into a statewide longitudinal data system, a greater understanding of education in Tennessee will be achieved.

Some of the policy questions that can be answered with the statewide longitudinal data system include:

- How do the state's high school graduates persist and perform in higher education?
- What pattern of high school course-taking leads to success in higher education?
- What is the predictive value of the state's tenth grade assessment?
- Who needs developmental education courses in reading, writing and math?
  - How is this related to high school course taking?
  - How is this related to tenth grade test results?
  - How is this related to scores on the GED examination?
- How do under-represented populations persist and perform in higher education?
  - Adults
  - Males
  - Low-income
  - GED recipients
  - Racial/ethnic minorities
- How do the findings inform high school and adult education reform, including development of college-ready standards in the key academic skill areas?
- How do financial aid packaging practices affect college choice, persistence and academic success of low-income students?

- What are the actual graduation rates, adjusted for mobility across systems and other states?
- How do various student retention strategies impact student success?
- What is the employment and wage status of graduates by program of study and degree level?
- Are we graduating sufficient numbers of students in fields with high job vacancy rates?
- How do graduates of various types of teacher preparation programs perform?

The education data warehouse contributes to our store of substantive knowledge and it will increase the speed and routinization with which cross-cutting projects can be completed, leading to increased capacity for research and reporting that is P-16 in nature.

eTranscripts: Since student transcripts are the quintessential longitudinal student record, the most significant impact a state education agency and the U.S. Department of Education can have on the quality of the nation's longitudinal education records is to ensure that schools have the capacity to create and exchange correct, certified and timely student records. TLDS' eTranscript application will permit high schools, the state, legislators, postsecondary institutions and the public to assess where Tennessee high school students apply to college, where they are admitted, and where they actually attend. This system will also simplify transfer of academic records between high schools when students move from school to school, and will allow postsecondary institutions to quickly update academic records for newly admitted students. With appropriate approvals, transcript data from colleges can even be sent back to originating high schools so school districts can assess their own college preparation efforts. Recipients can make faster and better informed decisions about incoming individuals, such as in cases of college enrollment and workforce readiness.

P-20: With completion of P-20 TLDS, Tennessee Labor and Workforce Development (L&WD) will have access to quality decision making data to substantiate the value of federally funded programs within its organization. These data will allow L&WD to demonstrate what transpired in students' lives after completing their education. Programs include, but are not limited to, completion data for GED Programs, Adult Literacy Programs, Training Grants, Pell Grant

Applicant Information, Work Force Training, English as a Second Language Training, Unemployment Insurance data, and Tennessee Teens to Work data.

Through successful collaboration with L&WD, TLDS P-20 will boast the abilities of:

- Student Identification Element – tracking individualized data beginning at the fundamental level through an educational student unique identifier throughout their education experience and into the labor force. This identifier will be used across P-12, Community College System, University System, Workforce Tracking and more.
- Adhering to Data Standards - Postsecondary and Higher Education typically involve a high percentage of students whose P-12 education occurred outside the state where the institution is based. TDOE’s Master Person Index ((MPI, described in 6(b)(iii)) and L&WD will address this issue by developing algorithms to match student data elements across multiple databases and data fields.
- Subject and Skills Data – L&WD maintains data on individuals and students. The P-20 TLDS will have the ability to consistently manage subjects, skills, intensity and other information regarding courses consistently across the entire system.
- Managing Complexity – Many students are dual enrolled whether it is P-12 to P-16 or P-16 to the Workforce. New skills will enable citizens to remain successful contributors to their communities and the world. Many of these individuals go on to become teachers in the P-12-P-20 System.
- Systems Interoperability – Interoperability will be addressed through Data Security sharing agreements and use of BI tools that allow distraction and reporting of data from multiple databases for consolidation purposes via a business intelligence tool selected during the grant. Presently student level data is available through multiple heterogeneous, autonomous, distributed data sources containing related and duplicated information. Resolution for solving heterogeneous multi-database systems requires discovering and managing certain types of knowledge facts. The TLDS P-16/P-20 will operate from a framework for managing knowledge for interoperable access and use of heterogeneous database systems. The framework will utilize knowledge bases at the integration and component sites. Key issues for resolving heterogeneity are acquisition of appropriate

metadata and discerning relationships among constructs of different database schemas. Management of this knowledge in a modular and efficient way is crucial for building an interoperable database system. A multi-database prototype system utilizing the techniques in this proposal is being developed.

(3) Advance to a 360 degree view of students. Tennessee's proposal is to go much further than extension of TLDS to P-16/P-20. It is to develop, provide appropriate access to, and effectively use a comprehensive TLDS to achieve a 360 degree view of students. Many conditions in addition to students' academic experiences influence learning, among them: of the almost 1.5M student age Tennesseans under age 18, over 100,000 (9.6%) have a disability; about 350,000 (38.8%) receive or are eligible for Free or Reduced lunch; 8.4% get Families First grants; 27.8% get Food Stamps; and over 670,000, almost 40%, are on TennCare. Child abuse and neglect contribute negatively to the learning experiences. Unfortunately, recent statistics indicate that 11.6% of the reported cases of abuse and neglect were substantiated. (2009 Kids Count Data Book)

In this project, TDOE will bolster TLDS significantly with information from other child serving agencies and the adult Department of Correction in order to inform best practices and help reduce achievement gaps during the near- and long-term. The current TLDS and expertise for data management at CBER create a tremendous base from which the state can align requirements for data transfer, identify data elements and expand utility of the system statewide for informed policy analyses.

The near- and long-term results of the project will permit analyses that validate or refute the extent to which untoward conditions affect educational attainment and other life experiences when matched with student/teacher data about academic achievement. An interagency database built around TLDS will allow analysis of the effectiveness of programs on recidivism, post-prison pursuit of education, and ultimately, labor market outcomes like earnings and unemployment rates.

In addition to THEC and L&WD, agreements will be negotiated for relevant data sharing with these child-serving departments and agencies:

- Department of Children's Services (DCS)
- Department of Health (DOH)
- Department of Human Services (DHS)
- Department of Mental Health and Developmental Disabilities (DMHDD)
- Department of Correction (DOC)
- Bureau of TennCare (TCB)
- Tennessee Commission on Children and Youth (TCCY)

Lead responsibility for achieving data sharing agreements will reside with a policy analyst in the Governor's Office of Children's Care Coordination (GOCCC), serving as Governance Manager for the Project. GOCCC leads and facilitates cross-departmental coordination, multi-departmental collaboration, policy analyses and system reforms. It is charged with translation of science into policy.

The sequence and integration of the service aspects and conditions children experience are depicted in 6 (c) Timeline for Project Outcomes.

Opportunities for policy informed research are limitless under this model of multi-departmental and interagency information transfer. Constraints include federal and state confidentiality rules. However, constraints of FERPA are mitigated by a relationship with CBER, an established trusted third party contractor. HIPAA Business Associate agreements will be negotiated sequentially with DOH, TennCare, and DMHDD, which also has federal substance abuse laws to consider. The state will work within these constraints and others to contribute to a rich data base for analysis by sequencing the order in which agreements are negotiated from easiest to most difficult to achieve.

Multi-departmental data will reside at CBER, which shares fiber optic connectivity with TDOE, THEC, Office of Information Resources (OIR) and agencies depicted in 8. *Appendix A3*. CBER is partnered with DOE as the external research organization for this project. CBER has

developed other integrated data bases (including with L&WD, DHS, THEC and DOE) and has an extensive track record in conducting and supervising research projects including annual and long-term economic and fiscal forecasts for the Governor and the state; research on education issues and funding and related public service delivery; linkages between higher education and the economy.

Agreements among TDOE, child serving departments and CBER to collaborate on policy issues and data sharing will permit ability to determine, among other outcomes (1) best investments relative to IDEA Part C early intervention services, PreK and Child Care on different levels of academic achievements and how different methods of delivering education affect these outcomes; (2) how conditions and situations such as health care, foster care and home visitation services and other factors affect educational performance; (3) how, through information exchange, each department can perform its functions more effectively by structuring its relationship to TDOE and Local Education Agencies to support children to achieve their highest potential; (4) how long-term contributions to education, health, and economic returns to the state differ among cohorts of discreet groups such as children in foster care, in children's special services, children eligible for child care subsidies, gifted children, and children in urban versus rural locations.

(4) Enhance Performance Across State Agencies: TLDS P-20, when linked to other agency data, will support improvements in program administration and policy, both within DOE and across state government in Tennessee. These improvements can reduce taxpayer costs, enhance service delivery, support program accountability, and promote better educational and workforce outcomes. Once completed, the integrated interagency database can help reshape the way government works in Tennessee.

Opportunities for improvement of program administration and program outcomes can be placed in four broad and potentially overlapping categories.

- (1) Administrative Improvements: State government agencies in Tennessee have migrated a substantial flow of data to electronic systems. But many paper legacies remain in the state's information and management systems, and these systems are not linked in a fashion to support administrative decision making. This project would overcome that obstacle.
  
- (2) Accountability: TDOE has two primary systems of public accountability. The first is TVAAS. The longitudinal database underlying TVAAS supports a linkage between teachers and students and enables identification of the educational value added to the student by the teacher. This system currently relies solely on school-level data. The premise of TVAAS is that background characteristics of a student—raw intelligence, family characteristics, peer influences and other factors—are stable and consistent and therefore do not affect changes in student performance from year to year, i.e., value added from the education system. In reality a child's personal and social circumstances are subject to ongoing change. For example, a third grader's parents might go on welfare, a parent might be imprisoned or the child might be placed in the custody of the state and then a foster home. Certainly these changing individual circumstances can be expected to affect a child's performance in school, and TLDS allows these other factors to be fully integrated into the value added model.

An interagency database built around TLDS will allow TVAAS to be recast to include information on the changing circumstances of a child. This will improve the accuracy of the system in evaluating teacher effectiveness. It will also allow identification of risk factors for students, enabling more effective interventions to promote student academic performance and wellbeing.

A second accountability system is the Report Card on Tennessee Schools, produced annually by DOE. This report, and its companion supporting resources on the Internet, includes state, district and school-level information on achievement, demographics, discipline and educator preparation. However, data are limited to PreK-12 education. There is currently no counterpart report card for post secondary education, Department of Children's Services'

schools and Youth Development Centers, Department of Correction education and training programs and other agency educational programs.

The project proposed here will enable development of a Statistical Abstract of Education in Tennessee that would encompass the full range of educational services provided by the state. This same reporting mechanism could utilize interagency data to summarize linkages between educational outcomes and other outcomes, including workforce status and utilization of public services. For example, what do graduates of Tennessee high schools earn relative to graduates from the state's community colleges and universities? How do unemployment rates for high school dropouts compare to unemployment rates for high school graduates? What is the educational attainment status of Tennesseans who utilize services from TennCare and Families First?

- (3) Teacher Effectiveness and Student Growth: Teachers are perhaps the most influential factor in affecting student performance. As noted above, TVAAS already gauges teacher performance. Linking TLDS to workforce and public service utilization outcomes can enrich the scope of TVAAS.
  
- (4) Outcomes Assessment: Education and child related services are costly to provide and returns to the state's investments in these services are not well known. An interagency longitudinal database will allow for rigorous examination of program effectiveness across state government in Tennessee. For example, DCS provides interventions and services ranging from foster care and adoption to schools, Youth Development Centers and health services. Other services to the same child might be provided through DHS and TennCare. Controlling for student and family/caregiver characteristics, how do these state services affect a child's educational outcomes and longer-term status in the labor market?

Another example is DOH and TennCare, which provide services to communities and families, including programs to reduce diabetes and promote physical fitness, and specific health care services to individuals within a family. These programs promote individual

wellness, in turn facilitating participation in formal educational programs and the labor market. The effects of these services on educational investments and labor market outcomes can be assessed when coupled with data from DOE, THEC and L&WD.

The longitudinal database can also be used to examine the role education plays in affecting other outcomes. For example, research has shown that parental education, especially educational attainment of mothers, has an important bearing on child wellbeing. Interdepartmental data would allow analysis of the impact of maternal education, public service utilization and workforce status on infant mortality rates, vaccination rates, teen pregnancies, and take-up rates for programs like WIC and child special services.

The four core components of this project—enhanced content and utilization of the current sophisticated TLDS capacity by teachers, schools, and school districts; completion of TLDS to a P-20 system; alignment of information from other child-serving departments with that of DOE to achieve TLDS 360, and enhanced performance across state agencies—will permit the state to move to a new level of competency relative to influences on student achievement. The project is a major puzzle piece contributing to the state’s Race To The Top proposal. It will support School Improvement Grants and the Teacher Incentive Fund. It will inform planning for Investing In Innovation when the RFA for that program is developed.

It corresponds to assurances of the State Fiscal Stabilization Fund. Relative to

- **Teacher Effectiveness:** The project will provide teachers with data dashboards that will provide not only standard educational metrics and value added assessment information but also information from other child serving agencies that influence a student’s ability to learn, generating a 360 degree view of the student.
- **Support of a P-20 System:** The project expressly links the current TLDS with THEC to answer the policy questions above that benefit both Education and Higher Education. TLDS will link L&WD’s programs such as data for Pell Grant Applicant Information, GED Programs, Work Force Training, Unemployment Insurance data, Adult Literacy Programs, Training Grants, English as a Second Language Training, and Tennessee Teens to Work data.

- Standards and Assessments: TLDS has an established history with TVAAS of providing multivariate, longitudinal analyses of every student’s entire set of achievement scores, which are widely used by teachers and throughout the education system. This project builds on the current TLDS and strengthens it.
- Targeted Interventions: By aligning data from the child-serving agencies with the TLDS to create a more comprehensive picture of student cohorts, schools will be better able to close achievement gaps among students and implement best practices.

Additionally, the project takes into consideration criteria for one of the stakeholder collaborators, Department of Health’s proposal to the Centers for Disease Control and Prevention Recovery Act funded program, “Communities Putting Prevention to Work”, the purpose of which is to promote broad-based policy, systems, organizational and environmental changes in communities and schools.

#### 6(b) Project Outcomes Related to System Requirements and Implementation

TLDS will integrate heretofore-scattered data silos to better connect teachers, principals and superintendants to data about their students, improve operations of DOE and participating agencies, advise education policy and management, and investigate the 360-degree-impact of education on lifecycle outcomes. These objectives require three major outcomes: (i) adaptive and secure data architecture (ii) rich, multidimensional data on students, teachers, and schools, and (iii) access platforms for local school systems, policymakers, researchers, and the public. Proposed products and features related to (i) through (iii) are outlined below, along with their contribution(s) to specific data system capabilities and elements. See section 6(c) *Timeline for Project Outcomes* and 8. *Appendix A4: Itemized Timeline by Outcome* for detailed timing of subtasks related to each outcome.

#### 6(b)(i) System Architecture Products and Features

TLDS architecture refers to the entire framework supporting integration, storage, and management of student data. Rather than construct architecture components around available data, TLDS architecture will be an outcome in and of itself, designed to be forward-looking and adaptive to new data sources and collaborative opportunities with other information systems and

states. TLDS architecture will receive and integrate data from multiple sources and information technology systems, and transform data into a foundation for reporting and research. Much of the architecture will be developed and implemented through Year 1, and TLDS will be ready to store integrated data early in Year 2. Some architecture elements may be modified as additional data is integrated throughout Years 2 and 3, with continuous improvement thereafter.

Contribution toward required data system capabilities and elements: prudent architecture design and implementation will lay the foundation for all data system capabilities and elements, particularly the internal quality and integrity of data.

1. Security features: before sensitive data are merged, security systems will be iteratively designed and tested for data receipt, storage, dissemination, backup, and recovery. Critical first steps will be to (1) identify best practices in other SDLs, and (2) advance those best practices with guidance from CBER, the Office of Information Technology at the University of Tennessee, SAS, Inc., and integrated health information systems currently being developed in Tennessee. Security will be continuously evaluated and improved throughout the life of TLDS.
2. TLDS functional requirements (product): TLDS directors, managers, and staff will define and document the necessary functions of TLDS.
3. Capital products: hardware and infrastructure will accommodate security needs, high-volume storage, and high-speed transfer. Servers and storage will be in place at DOE and CBER throughout development and operation phases, and will be upgraded as needed.
4. Data taxonomy, structure, and documentation features: TLDS staff and subcontractors will design structural components of the database itself in accordance with functional requirements and NCEs standards and guidelines for LDS interoperability, metadata, taxonomies, and documentation.
5. Data import design features: TLDS staff and subcontractors will design and implement data import pathways, in accordance with taxonomies, data integrity controls, and governance rules.

6. System evaluation products: a web-based feedback application will connect data warehouse staff with intermediate- and end-users to support continuous improvement. This product will allow bug reports and other complaints to be reported and resolved systematically. Additionally TLDS management will oversee regular, internal reviews of architecture features, and solicit external reviews from stakeholders in local, state and federal organizations.
7. Internal audit features: audit procedures will be designed to seek, report, and correct likely errors in the data. Audits will be added or modified as additional data are incorporated.
8. Incoming data integrity features: Business Intelligence systems with existing LDS elements will be upgraded to enhance internal operations and ensure that audited and cleaned data are delivered to the broader TLDS. Data warehouse staff will interact with DOE, SAS, Inc., and participating agencies to improve data delivery mechanisms and the quality of incoming data. Where possible, data integrity procedures, middleware, and metadata definitions will be implemented at the agency level. The Steering Committee (described in section 6(d)) will (1) determine the degree to which agencies' information technology can be efficiently adapted to meet TLDS data needs, and (2) determine the most efficient pathways for data transfer between agencies and TLDS

#### 6(b)(ii) Data Integration Products and Features

Data will be integrated in phases, following the resolution of security protocols and implementation of TLDS architecture (see 8. *Appendix A3: TLDS Outcomes* for a stylized diagram of data inputs and outcomes; see section 6(c) and 8. *Appendix A4 Itemized Timeline, By Outcome* for specific timelines.) During Phase 1, longitudinal data systems in service at DOE, CBER, SAS, Inc., and other partnering agencies will be merged to produce a P-20 longitudinal data system that meets and exceeds many required capabilities and elements of grant-funded data systems. This phase is expected to run through the first quarter of Year 2. During Phase 2, public service agencies with initial agreements to participate in TLDS (see 11. *Appendix D-- Letters of Support*) will formalize data sharing agreements and begin contributing data to TLDS. Also during Phase 2, an advanced student identification system (referred to below as a master person index, or MPI) will be utilized to match individuals across otherwise irreconcilable

datasets. MPI matches will complete the P-20 LDS and facilitate integration of Phases 2 and 3 data. The MPI and Phase 2 data will be integrated during Year 2. During Phase 3 and Year 3, data from additional agencies will be integrated pending finalization of data sharing agreements.

Contribution toward required data system capabilities and elements:

- Student-level longitudinal data from preschool through postsecondary education and into the workforce.
  - Link between students and teachers.
  - Teacher credentials, including experience, certification, and education.
  - Unique statewide student and teacher identifiers that mask sensitive, identifying information.
  - Student enrollment, demographic, and program participation information.
  - Student mobility and attrition information.
  - Annual test records for students.
  - Information on untested students.
  - Student-level course enrollment records and course grades.
  - Student-level college readiness (ACT) scores.
  - Student-level data on transitions to postsecondary institutions and postsecondary attainment.
  - Internal quality and integrity of data.
- Individual-level longitudinal data on public service utilization. These elements are beyond the scope of the required capabilities and elements but represent tremendous added value to Tennessee's current P-12 LDS and proposed Phase 1 P-20 LDS.

1. Phase 1: P-20 TLDS. Tennessee's existing LDS elements are housed in isolated information technology and governance systems, and no previous attempt has been made to integrate them into a substantially more valuable and complete LDS. During Phase 1, data from pre-K, K12, postsecondary, and workforce information systems will be merged within a secure and unified architecture, in accordance with a collaborative model of governance.

Specific data features and products related to this Phase of TLDS development are itemized below.

- Unique student identifier and masking features. TLDS will use standardized identifiers (state- and district-assigned student IDs, Social Security numbers), names, and unchanging demographic characteristics to link individuals' data longitudinally and across reporting units. Then, a unique identifier will be generated for each individual. This identifier will have no meaning and entail no privacy risk outside of TLDS. Following successful identification, some private data (including Social Security numbers, if applicable) will be masked.
- Integrate existing longitudinal elements from DOE, CBER, TVAAS, and NCES to form a preliminary P-20 LDS (product). All data elements, unless noted otherwise, are expected to recur on an annual or more frequent basis.
  - Existing DOE data, all dating back to 2006: K12 student achievement, enrollment, demographics, and other available information (disciplinary, extracurricular, and college readiness, for instance) from the Education Information System (EIS) and Statewide Student Management System (SSMS); K12 teacher assignments and credentials from the Personnel Information Reporting System (PIRS); K12 teacher-student match.
  - Existing data at CBER: six unique datasets and surveys on child care and public welfare services, some dating back to 1996; teacher assignments and credentials dating back to 2001 from the CBER-assembled Teacher Education Data Warehouse (TED); postsecondary student data from THEC, representing all higher education institutions in the State (including public and private two- and four-year colleges and universities) and dating back to 1997; earnings and employment data from statewide Unemployment Insurance (UI) records, dating back to 1995. Note that multi-state collaboration is possible through external THEC and UI relationships.
  - Existing TVAAS data (maintained by SAS, Inc.): K12 student achievement, enrollment, and demographics, dating back to 1990; Teacher-student match for tested courses, dating back to 1990; ACT scores, dating back to 2000.
  - Existing NCES Common Core of Data: School- and district-level data on enrollment, demographics, achievement, attainment, and finance, with some fields dating back to 1986.

## 2. Phase 2: P-20 TLDS Enhancements

- Develop and implement the Master Person Index (MPI). The MPI feature will improve on the Phase 1 identification system and expand the scope of TLDS to include data without Social Security numbers and other common identifiers. The MPI will permit the seamless integration of new data in Phases 2 and 3, and will provide robust validity checks of Phase 1 identifiers. The MPI will be developed by the State of Tennessee Office of Information Resources (OIR) simultaneously with development of TLDS.
- Integrate data from agencies with formal agreements to participate in TLDS. See *11. Appendix D--Letters of Support* and initial Project Charters. Anticipated highlights from Phase 2 agency data are described below. Actual Phase 2 data will be subject to final data sharing agreements and may include additional agencies not named below.
  - Department of Health: birth certificates, immunization records, and children's special services.
  - Department of Human Services: free or reduced lunch, child care center quality, child support, and welfare beneficiary information
  - Department of Children's Services: foster child indicator, foster case information, juvenile justice involvement and youth in transition data.

## 3. Phase 3: P-20 TLDS Enhancements (ongoing)

- Integrate data from additional agencies, pending formal agreements to participate in TLDS. Anticipated highlights from Phase 3 agency data are described below. Actual Phase 3 data will be subject to final data sharing agreements.
  - TennCare (Tennessee's Medicaid program): enrollment and benefits for eligible children and families.
  - Department of Corrections: offense histories, recidivism and probation outcomes: GED outcomes while incarcerated, juveniles in the general correction population and offenders up through P-20.
  - Labor and Workforce Development: unemployment compensation payments.

- Department of Mental Health and Developmental Disability: outcomes for early intervention programs and system of care enrollees.

### 6(b)(iii) Reporting and Research

TLDS, as proposed, will dramatically improve the depth, scope, and quality of data available to schools, Local Education Authorities (LEAs), the public, DOE, and partnering agencies.

Business intelligence features and restricted access portals will be in place by the end of Year 2, and expanded to include additional data and public portals thereafter. In addition to operational efficiencies, TLDS will facilitate rigorous research and policy analysis. Research support features and TLDS access protocols will be in place by the third quarter of Year 3. Reporting and research outcomes, as well as supporting features, are described below.

#### Contribution toward required data system capabilities and elements

- Web-based access to detailed student data available for teachers, principals and superintendents.
- Enables exchange of data among agencies and institutions within the State and between States so that data may be used to inform policy and practice.
- Timely reporting to parents, teachers, school leaders, and the community at large.
- Facilitate *EdFacts* and State Fiscal Stabilization Fund reporting to the U.S. Department of Education

#### 1. Business intelligence (BI) features:

- Aggregation and access rules: Members of the TLDS Steering Committee (see section 6(d)) will negotiate aggregation and access rules between data sources and integrated data users. The scope and depth of data access will be user-specific and subject to data sharing agreements, aggregation rules, metadata definitions, and abundant security measures, all of which will be in strict accordance with FERPA, HIPAA, and other applicable laws. Aggregation rules and secure, user-specific access will be programmed and managed by the BI software vendor.

- BI software is a critical layer between physical data and web-based portals. Current DOE BI systems were launched following the 2006 receipt of a Statewide Longitudinal Data System grant, #R372A05127. This software moved the State’s longitudinal data system forward and is a valuable resource for Tennessee educators. Current BI systems, however, are inadequate to support the public and inter-agency products outlined in this application (see “Web-based Portals” below) since data are only available to two individuals within each Local Education Agency (LEA). Funds awarded under this grant will be used to (1) upgrade current DOE Oracle databases and (2) tailor state-of-the-art SAS, Inc. software to improve on the reporting capabilities of the existing BI system. These efforts will facilitate data exchange among agencies, within DOE, among LEAs, among schools, and between DOE and the public. A web-based portal is currently available through SAS for very limited data. The project will explore using this platform to expand dramatically data available to teachers, principals and superintendents throughout all LEAs in Tennessee.

2. Web-based portals (products): BI software will facilitate presentation-layer interfaces for schools, LEAs, the public, agencies, and DOE. End-user interfaces will be web-accessible dashboards to TLDS data. Currently, SAS, Inc. maintains secure portals to student test records, projections, and other TVAAS data. TLDS managers will leverage this resource to expand the accessibility and scope of current web-based portals.

- Public portals: these portals will facilitate public reporting and improve the ease and accuracy with which families and community members can access aggregate education information. Products will include statistical abstracts and interactive tables on school- and district-level enrollment, socioeconomic indicators, achievement, personnel, and finance.
- Agency portals: secure data will be available to participating agencies (subject to data sharing agreements). For example, a foster child’s case manager at the Department of Children’s Services will be able to determine if a child’s education records followed him to his new school. These portals will generate inter-agency synergies, improve efficacy of public service provision, and add tremendous value to Tennessee’s existing longitudinal

data systems. SAS, Inc. will host webinars to train agency personnel on the effective use of TLDS dashboards.

- School, LEA, and DOE portals: secure data will be available to school system administrators, principals, teachers, and families. Portals will be designed to aid school and district operations. In-service TVAAS dashboards developed by SAS, Inc. are user-friendly interfaces designed to deliver timely, important data to educators. TVAAS restricted-access portal is a reasonable, cost effective mechanism for delivery of the 360 student view for educational uses. Thousands of Tennessee teachers and principals already have secure, responsibility-specific TVAAS accounts with the ability to drill down to a fine level of detailed student information. The state has committed to increase TVAAS access to all appropriate school personnel by fall 2010. This expansion will be concurrent with TLDS development. Missing from existing TVAAS delivery is access to student/family data from other state agencies that should trigger additional educational support for students whose academic success is threatened or potentially compromised by unexpected events occurring outside of education. TVAAS/TLDS dashboards will include data on public service utilization (subject to data sharing agreements), and improve educators' responsiveness to student circumstances. SAS, Inc. will host webinars to train school, LEA, and DOE personnel on effective use of TVAAS/TLDS dashboards. Ultimately, these portals will communicate "early warning" flags to LEA and school personnel when at-risk behaviors (low attendance, accumulating suspensions, low achievement, and so forth) collectively signal the need for intervention and support.
3. Research support features: the research support layer will be designed to securely access micro-data for research purposes. The Steering Committee, in partnership with CBER and data warehouse staff, will develop research access protocols (including procedures to mask private data), evaluate incoming research proposals, and monitor approved research projects, in strict accordance with FERPA, HIPAA, and other applicable laws.
  4. Research reports and policy analysis (products): TLDS, as envisioned in this

application, will trace a new frontier for the design and implementation of longitudinal data systems. TLDS will support a wealth of research questions currently precluded by data limitations. DOE and CBER researchers will produce reports that guide policymakers and administrators in identifying and adapting successful education delivery systems. Studies will analyze, for instance, determinants of teacher quality, the value of effective teachers, and short- and long-term efficacy of education policies like teacher performance pay, charter schools, as well as any innovations supported by Race To The Top funds. Effectiveness will be measured by K12 outcomes like test scores, high school attainment, and changes in critical achievement gaps, and also by adult outcomes like college attainment, employment, earnings, incarceration, and utilization of health and welfare services.

#### 6(c) Timeline for Project Outcomes

Timelines and primary responsibilities for outcomes and subtasks outlined in 6(b)(i) through (iii) are described below. See 8. *Appendix A4 Itemized Timeline, by Outcome* for further details, including specific tasks, dates, and shared responsibilities. Y1-Q1 refers to the beginning of year 1, quarter 1 of three-year window over which funds will be allocated. Year 1, quarter 1 will commence the calendar month following announcement of grant awards.

During Y1-Q1 and Q2, personnel will be hired and a data architecture subcontractor will be identified. These resources will contribute to all outcomes and tasks. Personnel will be hired by Co-Project Directors at TDOE and CBER. The subcontractor's main function will be to aid in design and implementation of a secure and flexible system for importing, storing, and managing longitudinal data from disparate sources. The subcontractor will also serve as a resource during initial waves of data integration and reporting. Also during Y1, the Steering Committee will be established, bringing together representatives from each partner agency and TLDS staff. Representatives will have expertise in both agency-level administration and data analysis. Anticipating frequent meeting during the development stage of TLDS, this committee will meet at least twice yearly to coordinate data sharing and acquisition agreements, evaluate internal and external research proposals, discuss opportunities for inter-agency cooperation, and provide feedback and guidance to TLDS staff.

### 6(c)(i) System Architecture Timeline

1. Security features. CBER Project Manager 1 and a data architecture subcontractor will oversee the development, testing, validation, and continuous improvement of necessary infrastructure and software security measures. All efforts will be made to meet and exceed federal and state security requirements. Project Manager 1 will serve as the liaison between the subcontractor and TLDS leadership and will be directly responsible for all products produced by the subcontractor. These security features will be planned and designed during Y1-Q1 and Q2, fully implemented by the subcontractor during Y1-Q3 and Q4, and continuously maintained and evaluated beginning in Y2-Q1.
2. TLDS functional requirements. All TLDS directors and managers will plan forward-looking functional requirements and capabilities of the TLDS. Leadership will identify the data needs of end-users (the public, DOE, participating agencies, and researchers) and plan how the TLDS will meet those needs. These functional requirements will be planned during Y1-Q1 and Q2.
3. Capital products. Co-Project Directors and Project Manager 1 will be responsible for acquiring, evaluating and maintaining all capital products. Initial capital products for secure database locations at DOE and CBER will be in place during Year 1, with additional capital products for the partner agencies acquired during Years 2 and 3. The evaluation and maintenance of all capital products may begin in Y2-Q1, after they are in place and fully operational at CBER and DOE.
4. Data taxonomy, structure, and documentation features. Project Manager 2 will be directly responsible for these features, with consultation and assistance provided by the architectural subcontractor. Project Manager 2 will identify best practices and standards during Y1-Q1 and Q2, and implementation and documentation may begin at Y1-Q3.
5. Data import design features. Data import functionality will be designed by the subcontractor; responsibility will lie with Project Managers 1 and 2. These features will be designed during Y1-Q3—Y1-Q4, with testing and evaluation occurring during Y2-Q1—Y2-Q2.
6. System evaluation products. System evaluation will be a collaborative effort of the Co-Project Directors, Project Managers, and data architecture subcontractor. These personnel

will ensure that the system satisfies the needs of all end users. Data warehouse personnel will develop a web-based feedback application for bug reports and other complaints during Year 2, commensurate with the integration and use of Phase 1 and 2 data. Project Manager 1 will regularly evaluate the TLDS architecture and security system, beginning in Year 2 and ongoing. The DOE Co-Project Director will be responsible for coordinating external evaluations, in accordance with state and federal regulations.

7. Internal audit features. Project Manager 1, in collaboration with the data architecture subcontractor and data warehouse personnel, will be responsible for designing data validation and audit processes to seek, report, and correct errors in the data. Audits will be developed beginning in Y1-Q3, simultaneously with the unique student identification system. Additional validation processes will be incorporated on an ongoing basis as the scope of the TLDS expands.
8. Incoming data integrity features. This subtask requires collaboration between CBER, DOE, Project Manager 2, and the Governance Manager. TLDS managers will determine the most efficient pathways for high-quality data delivery, and recommend adaptations to source agencies' information technology systems. Adaptations to DOE Oracle systems will be an important first step, and is expected to commence in year 1, quarter 1. Features to improve incoming data from other sources will be implemented from the beginning of architectural design in Y1-Q3, and will be ongoing.

#### 6(c)(ii) Data Integration Timeline

1. Phase 1: P-20 LDS
  - Unique student identifier and masking features: develop algorithms to match students across Phase 1 data files. Several LDS elements spanning pre-K through the workforce are currently in a common location at the University of Tennessee CBER. Additional P-12 student-level data are maintained by DOE and SAS, Inc. Beginning in Y1-Q3, data warehouse personnel will develop matching algorithms that take advantage of Social Security numbers and other in-service serial numbers identified by the Agency Technical Coordinator. Then, data warehouse personnel and the subcontractor will create a single, global identifier that is not traceable to individuals. This sub-task is coupled closely with

security features. All confidential data with no TLDS purpose outside of matching will be stored in a separate, secure location. We expect this initial identification algorithm will have broad, but not universal coverage. The Master Person Index (described below) will allow for universal coverage of the unique student identification system.

- Integrate existing longitudinal elements from DOE, CBER, TVAAS, and NCES to form a partial P-20 LDS. CBER will house the TLDS data warehouse. By Y2-Q1, the secure architecture and student identification systems will be in place. At this time, Project Manager 2 will oversee the integration of all available data and the formation of the TLDS.

## 2. Phase 2: P-20 LDS Enhancements

- Develop and implement the Master Person Index (MPI). The DOE Co-Project Director, OIR, and outside vendors will oversee the development of the MPI through the end of Y1. The Architecture Manager will communicate the limitations of Social Security numbers and other in-service student identifiers to the State of Tennessee Office for Information Resources (OIR), beginning in Y1-Q3. Project Manager 2 and OIR will jointly integrate the MPI into the TLDS between Y2-Q1 and Y2-Q2. The MPI will reconcile unmatched Phase 1 data and lay the foundation for the integration of Phases 2 and 3 data. The MPI will be adapted or expanded commensurate with its value added, as determined by the Architecture Manager and Technical Director near the end of Y2.
- Integrate data from agencies with formal agreements to participate in TLDS. Through the first half of Y2, TLDS leadership, along with the Governance Manager and Steering Committee, will formalize data acquisition and sharing agreements with selected agencies (including the Department of Children’s Services, the Department of Health, and other agencies listed in section 6(b)(ii)2). Project Manager 1, with consultation from OIR and the subcontractor, will merge Phase 2 agency data (via MPI) with TLDS by the end of Y2

## 3. Phase 3: P-20 LDS Enhancements

- Integrate data from agencies with formal agreements to participate in TLDS. TLDS leadership, along with the Governance Manager and Steering Committee, will formalize data acquisition and sharing agreements with identified Phase 3 agencies through the end of Y2. This task will be ongoing as more agencies, organizations, and cross-state collaborators are recruited, and as the data requirements of partner agencies evolve. Project Manager 1, with consultation from OIR the subcontractor, will merge Phase 3 agency data (via MPI) with the TLDS by the end of Y3-Q2.

#### 6(c)(iii) Reporting and Research Timeline

1. Business intelligence (BI) features. All DOE and CBER directors and managers and the Steering Committee will be responsible for planning functional requirements of BI interfaces by the end of Y1-Q3. Existing SAS, Inc. TVAAS interfaces will be expanded to include richer student data from DOE, CBER, and participating agencies. The Governance Manager and CBER Co-Project Director will plan and document business rules for aggregation, access, and sharing, starting in Y2-Q1 and ongoing as additional agencies are recruited to participate. SAS, Inc. will program aggregation and access rules, beginning in Y2-Q1, and ongoing as additional data is integrated. Data warehouse personnel will connect BI layers to the TLDS, beginning with integrated Phase 1 data in Y2-Q1, and then with Phases 2 and 3 data throughout Y3. Project Manager 2 will test and evaluate BI tools throughout Y2 and Y3.
2. Web-based portals. Projects Managers 1 and 2 and SAS, Inc. will oversee development, testing, and validation of web-based portals for TLDS data access. The degree of allowed disaggregation will be determined by user class (public, school, LEA, DOE, or qualified employees of the partner agencies), security clearance, and user needs. Portal interfaces will be tested and validated before launch. Dashboards for schools, LEA administrators, and DOE personnel will be launched following successful integration of Phase 1 data. At that time, TLDS managers will develop an early warning algorithm to identify at-risk students using multiple dimensions of student information (attendance, achievement, disciplinary actions, and so forth). TVAAS/TLDS dashboards will be used to notify school leaders of at-risk students. Additional dashboards for qualified agency personnel will be launched following the incorporation of Phase 2 and 3 data. SAS, Inc. will host webinars to introduce qualified

personnel to the new TVAAS/TLDS dashboards and early warning notifications. The first wave of webinars will target school, LEA, and DOE portal users, and the second wave will target agency portal users.

3. Research support features. TLDS leadership and managers will determine functional requirements of a research support layer connecting TLDS data to researchers and policy analysts in Y1-Q3. This class of end-user requires a fine level of detail for data analysis; accordingly, TLDS leadership, Governance Manager, and Steering Committee will plan and document research access procedures and research-specific security measures by the end of Y2-Q2. Research support layers (i.e., statistical packages and supporting features) will be selected in Y2-Q1 and adapted to support access and security protocols.
4. Research reports and policy analysis. By Y2-Q3, Phase 1 and some Phase 2 data will be integrated into the TLDS, the MPI will be operational, and the TLDS will be a valuable resource for research. At this time, the CBER Co-Project Director and Steering Committee will begin evaluating projects requiring access to a finer or broader level of detail afforded by web-based portals. Approved projects will be monitored, and final reports will be collected in a restricted-access library of TLDS research.

#### 6(d) Project Management and Governance Plan

Project location: The project is located within TDOE with Co-Project Directors (CPDs) and support staff located in TDOE and at CBER, a trusted third party already in an established relationship with TDOE, THEC and several other state agencies. This is a collaborative project that goes beyond typically delineated boundaries. DOE's existing LDS Governance, described below and depicted in 8. *Appendix A5*, and CBER are responsible for approval and oversight of project activities.

Governance Structure: A Steering Committee chaired by the Commissioner of DOE, empowered to set policy for all interagency components of TLDS, will be composed of the Commissioner or her designee from each partner agency, TDOE and CBER Co-Project Directors, and Finance and Administration, 8. *Appendix A5*. The Steering Committee will meet frequently during the development stage of TLDS, then approximately twice yearly once the

database has been established. The Steering Committee will coordinate with other interagency policy boards, including the one currently being established for e-health, 8. *Appendix A6*.

A Work Group will be appointed composed of one policy and one IT representative from each member of the Steering Committee. The Work Group will be charged with implementing policy set by the Steering Committee, be responsible for evolution of the database as available data and needs change over time, and make decisions within policy set by the Steering Committee on specific access to the database and on what data can be made available to which users. The Work Group will organize functional work areas focused on specific issues such as security protocols, how and when data are to be updated, and performance standards for the participants, among others.

The current TDOE Data Management Committee will be retained as key informants in the Governance Structure as they are currently organized. Areas represented on Data Management Committee are Office of Federal Programs; Field Service Centers/State Schools; CCD, Non-Fiscal, Curriculum and Instruction; Financials; Career and Technical Development; Office of Assessment; Professional Development; Special Education; Department of Early Childhood; English Language Learners; Free and Reduced Lunch; Highly Qualified; Graduation Rate; Discipline/Dropout; Annual Yearly Progress/Report Card; and Safe and Drug Free Schools.

The CPDs will be responsible for the project's operation during the period of the grant, sustained in DOE by the Department's Chief Analytic Officer and at CBER through integration of the databases developed during the grant into ongoing operations of the Center.

Project Management Controls: DOE and CBER CPDs will meet frequently to assure these functions occur timely:

- DOE's CPD is responsible for enhancing the P-12 to its full potential and expanding TLDS to a complete P-16/P-20 through the existing Governance Structure, 8. *Appendix A5*, supported by a Database Administrator responsible for LDS database transactions and reports and a research analyst (Yr 1, Q1, Q2 and beyond). Additionally, in

collaboration with a policy analyst in the Governor's Office of Children's Care Coordination (GOCCC), who serves as Governance Manager for the project, the DOE CPD is responsible for initiating multi-departmental data acquisition agreements (Yr 1, Q3, Q4). Staff of the GOCCC is responsible for developing and coordinating the Steering Committee (Yr 1, Q1 and beyond) and developing and monitoring formal Memoranda of Understandings among the departments, CBER and DOE.

- CBER's CPD is responsible for the architecture for the project to be developed by a qualified subcontractor, which will include acquisition of the hardware, development of the software and filling of the database with data from the many partner agencies.

CBER will have two Project Managers (PMs) who will have day-to-day responsibility in coordination with TDOE for different aspects of database development. One PM in CBER will take responsibility for development of software and acquisition of hardware (Yr 1, Q1, Q2) and testing and evaluation (Yr 1, Q3, Q4). PM1 will work closely with the qualified subcontractor who designs and builds the database to ensure the architecture is consistent with Tennessee's needs, allows highly functional and efficient access to appropriate data and analysis and can be efficiently maintained and updated once it has been developed. PM1 will also work closely with partner agencies to ensure they have appropriate hardware and software to upload data seamlessly into TLDS and to download data and analysis in an appropriate format to facilitate usefulness for partner agency operations and analyses. PM1, together with her counterpart in TDOE, will serve as the primary advisors to partner agencies on solving hardware and software problems. This person will serve as the Architecture Manager (Yr 1 and beyond).

The second Project Manager in CBER will take responsibility in cooperation with TDOE for data linkages with partner agencies. PM2 will work with partner agencies, and particularly with the GOCCC Governance Manager in obtaining partner agency agreements on what data are to be included in TLDS and who has access to the data. PM2 will represent CBER in the Work Group to ensure smooth, unimpeded communications on implementation of the governance plan. Further, PM2 together with his or her counterpart will be accountable for developing clear understanding of the data being placed into TLDS, data cleansing and internal audit for all

partner agency data, and a data dictionary that provides a consistent set of definitions across data retrieved from partner agencies so the resulting product can be reliably and consistently matched across underlying data sets (Yr 1, Q3, Q4 and beyond).

A set of academic advisors will work regularly with the core TDOE and CBER project staffs to ensure the data and architecture are designed most usefully for implementation in partner agencies' operations and for analysis of public policy and education outcomes and methods. Further, the academic advisors together with TDOE will develop the initial public reporting on education in Tennessee and on how education interacts and interfaces with other key public policy investments including in health, correction, higher education, and children's services. Academic advisors will come from multiple backgrounds including economics, geography, and accounting.

Adherence to project timelines and budgets will be reported monthly to the DOE Commissioner and Executive Management Team and to CBER's leadership.

Project Partners: The other partner agencies in the project are SAS, OIR, the Departments of Children's Services, Health, Human Services, Mental Health and Developmental Disabilities, Correction, Labor & Workforce Development, THEC, TCCY and TennCare Bureau. Initial Project Charters, included in *II. Appendix D*, articulate commitments for implementation by the partner agencies. Memoranda of Understandings will be formalized during the period of the grant.

Input of teachers and other educators will be sustained through input from and feedback to the District Technology Advisory Committee, extant. In addition, the District Technology Advisory Committee will include representatives of model Teacher/Student IT projects planned or underway in Memphis, Nashville, Knox County and Greeneville Tennessee.

Training and Technical Assistance: Ongoing and sustained training across education sectors is vital to TLDS. If we do not examine and analyze our data we will have wasted millions of

dollars on a technical infrastructure and be unable to determine which school courses prepare students for higher education. The overall scope of training will attend to consistent coordinated training for LEAs, Administrators, Counselors, interagency personnel and other child caring personnel who hold appropriate security identification for student data access. These trainings will address needs anticipated over the next five years and beyond, as the State of Tennessee develops a broad capacity to respond to students at risk of, in, or emerging from crises.

Types of Training: The types of training that will be delivered include: Conference trainings at the Annual Superintendents conference, the spring and fall attendance conference, the Annual Teachers Annual Tennessee Educational Technology Conference, web portal training and webinars training.

1. FERPA Rules and Regulations;
2. The Data Elements of the TLDS;
3. Data use for best practices;
4. Data use for student improvement and analyses;
5. Data use for effective teaching; and
6. Data use for curriculum changes/modifications

Web Portal training will be available for teachers, administrators, counselors and school board members and legislators who hold appropriate security permissions. The intent is to reach multiple stakeholders in the education language that they understand. This site will include a data sharing area for dialogue. It will include regular case studies of best practice and lessons learned. It will also have secure portals for authorized users to access the state's longitudinal data system. The web portal will support on demand personalized training which will be used for Professional Development.

Letters of support from all partners and initial Project Charters, as appropriate, are included in *11. Appendix D*.

#### (e) Staffing

Staff support for project and Governance structure for the project is comprised of

(1) the DOE Co-Project Director, DOE's Chief Analytic Officer, responsible for enhancing P-12 and expanding to P-20; 2 Data Base Administrators responsible for, but not limited to, the design, implementation, maintenance and repair of DOE's student longitudinal database, to include installation of new hardware/software, security administration, data analysis, database design, data modeling, optimization and performance analysis and tuning; 2 research analysts responsible for providing expert analysis and analytical skills to assess educational performance from teacher to student, student to school, school to district, district to district and LEA to LEA for Tennessee students; and 1 full time administrative support staff responsible for maintaining documentation about the project, timely communications among the partners, and related organizational support;

(2) the CBER Co-Project Director responsible for managing development and operation of TLDS in collaboration with TDOE; Project Manager 1 responsible, in conjunction with a qualified subcontractor, for development of software and acquisition of hardware and for hardware and software problem solving with project partners; Project Manager 2 responsible for data linkages with partner agencies, protocols for data, cleansing, and internal audit, development of data dictionary, and representing CBER in the Work Group; academic advisory staff (one full time equivalent per year), and one support staff; and

(3) one GOCCC policy analyst, the Governance Manager, responsible for multi-departmental project collaboration.

# TENNESSEE

## DQC 2009 Annual Survey Update and State Progress Report

The Data Quality Campaign (DQC) was launched in 2005 to help states develop robust longitudinal data systems that can provide policymakers and educators with information to help adjust policies and practices to improve student achievement. The DQC has identified 10 Essential Elements of a robust data system (see below) and 10 Actions all states must take to ensure effective use of data (see reverse side).

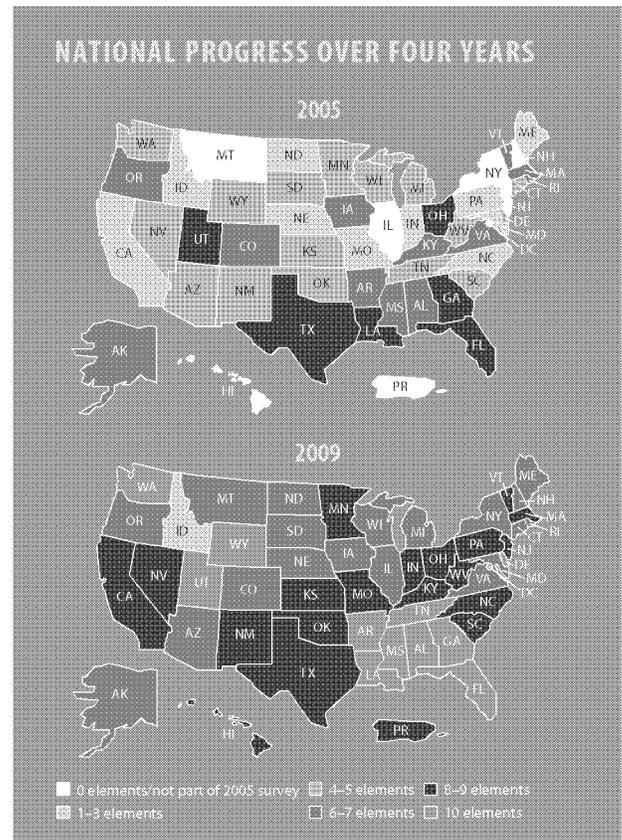
### State Status on the 10 Essential Elements

Element	State Status
1. A unique student identifier	✓
2. Student-level enrollment, demographic and program participation information	✓
3. The ability to match individual students' test records from year to year to measure academic growth	✓
4. Information on untested students	✓
5. A teacher identifier system with the ability to match teachers to students	✓
6. Student-level transcript information, including information on courses completed and grades earned	✓
7. Student-level college readiness test scores	✓
8. Student-level graduation and dropout data	✓
9. The ability to match student records between the P-12 and postsecondary systems	✓
10. A state data audit system assessing data quality, validity and reliability	✓

### Key Policy Questions

States that have all 10 Essential Elements have the capacity to answer key policy questions. Based on survey responses, Tennessee has the ability to answer the following key policy questions:

- ▷ Which schools produce the strongest academic growth for their students? **YES**  
*(Elements 1, 2, 3, 4)*
- ▷ Which middle school achievement levels indicate that a student is on track to succeed in rigorous courses in high school? **YES**  
*(Elements 1, 3, 6, 7)*
- ▷ Does the state have the necessary elements to calculate a longitudinal graduation rate, according to the calculation agreed to in the 2005 National Governors Association compact? **YES**  
*(Elements 1, 2, 8, 10)*
- ▷ What high school performance indicators (e.g., enrollment in rigorous courses or performance on state tests) are the best predictors of students' success in college or the workplace? **YES**  
*(Elements 1, 3, 6, 7, 8, 9)*
- ▷ What percentage of high school graduates require remedial education in college? **YES**  
*(Elements 1, 8, 9)*
- ▷ Which teacher preparation programs produce graduates whose students have the strongest academic growth? **YES**  
*(Elements 1, 3, 4, 5)*



**State Contact**

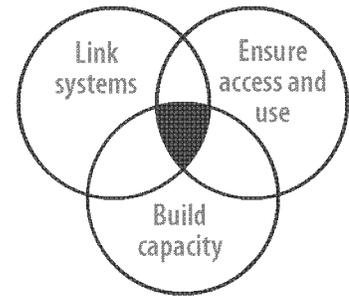
Irma Jones, Chief Analytic Officer ■ Tennessee Department of Education ■ irma.jones@tn.gov

For additional information on your state's results, go to [www.DataQualityCampaign.org](http://www.DataQualityCampaign.org).

## Looking Ahead: States Must Take Actions To Promote the Use of Data

Creating state longitudinal data systems able to provide answers to key questions about performance is a vital first step. However, states also must have policies and practices in place so that stakeholders throughout the education system can access, understand and use the information effectively. Specifically, states should focus on three overarching imperatives for changing the culture around data use to maximize their investment in longitudinal data systems:

- ▷ **Expand** the ability of state longitudinal data systems to link across the P–20/workforce pipeline;
- ▷ **Ensure** that data can be accessed, analyzed and used by multiple stakeholders including educators, parents and researchers; and
- ▷ **Build** the capacity of all stakeholders to use longitudinal data.



In January 2010, the DQC will issue its first report on individual states' progress on the 10 State Actions to ensure the effective use of longitudinal data. The results will provide greater detail on how states are changing policies and practice to promote links across systems, ensure appropriate access to new data and analysis, and strengthen stakeholder capacity to use the information.

### 10 STATE ACTIONS TO ENSURE EFFECTIVE DATA USE

To ensure key stakeholders have access to and are using data effectively, states must:

 <p>1 Link state K–12 data systems with early learning, postsecondary education, workforce, social services and other critical state agency data systems.</p>	 <p>6 Create progress reports with individual student data that provide information educators, parents and students can use to improve student performance.</p>
 <p>2 Create stable, sustained support for robust state longitudinal data systems.</p>	 <p>7 Create reports that include longitudinal statistics on school systems and groups of students to guide school-, district- and state-level improvement efforts.</p>
 <p>3 Develop governance structures to guide data collection, sharing and use.</p>	 <p>8 Develop a purposeful research agenda and collaborate with universities, researchers and intermediary groups to explore the data for useful information.</p>
 <p>4 Build state data repositories (e.g., data warehouses) that integrate student, staff, financial and facility data.</p>	 <p>9 Implement policies and promote practices, including professional development and credentialing, to ensure that educators know how to access, analyze and use data appropriately.</p>
 <p>5 Implement systems to provide all stakeholders timely access to the information they need while protecting student privacy.</p>	 <p>10 Promote strategies to raise awareness of available data and ensure that all key stakeholders, including state policymakers, know how to access, analyze and use the information.</p>

The DQC will publish results on the 10 State Actions in January 2010. For additional information, visit [www.DataQualityCampaign.org/resources/384](http://www.DataQualityCampaign.org/resources/384).

For more information about the DQC survey, visit [www.DataQualityCampaign.org](http://www.DataQualityCampaign.org) or contact Bi Vuong at [Bi@DataQualityCampaign.org](mailto:Bi@DataQualityCampaign.org).

## Tennessee Race to the Top – Appendix C-2-1

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### 360 Student View SAS® Recommendations

The following recommendations provide LEAS a student-specific heads up about test performance in the current year. Experiences in MNPS, MCS and Hamilton County as well as those in other states, previous conversations with a variety of state agency staff, the Department's application for LDS funding, and the intent to deliver TVAAS teacher reports via the TVAAS restricted site were considered in the preparation of this proposal.

A successful completion requires that the Department create a file of students that indicates the LEA and school (name and number) where they are presently enrolled/attending. If this project is to proceed on schedule, SAS should receive the file as soon as possible. This information enables the automated reports that are the drilldown to students summarized in the academic dashboards.

By early January 2010, SAS will provide to the Department files for LEAs that indicate the teachers receiving reports in 2009. These files will include the teachers' first and last names, their assigned schools (2009), grades, subjects, and their state identifier as reported on the 2009 TVAAS teacher reports. LEAs must update these files by including any new teachers assigned in 2010, removing any teachers not teaching in 2010, and adding email addresses for individual teachers. The updated files from LEAs will become 1) the basis of assigning school user accounts for teachers as soon as possible and 2) for delivering their teacher reports in fall of 2010.

The PK-12 professional development activities to support this project are a combination of face-to-face informational and train the trainer meetings (urban areas) as well as virtual iPod and real time WebEx sessions. The iPod sessions will be publicly available from the Departments Electronic Learning Center as well as through the TVAAS restricted website. SAS will develop the supporting materials for all sessions, design and deliver the recorded the iPod sessions and also deliver the WebEx sessions. SAS will imbed in the restricted site application a system for counting attendance for those who desire to accumulate professional development hours through the offerings of this project. Additional support for emailed questions will be handled through Contact Us on the TVAAS restricted website.

The professional development will be available as a pre-service offering to any university entering into a Demonstration Site Agreement with SAS. This will ensure the consistency of the content delivery. SAS will provide demonstration sites of simulated TVAAS districts/schools/student & teacher reporting for this purpose at no cost to the universities similar to those used in the PK-12 activities. SAS has piloted use of these sites in a limited format with the Tennessee Education Association, University of Tennessee, Chattanooga and David Lipscomb University.

Presently, teachers sometimes lack the support within their schools to understand the educational implications of their teacher reports, the student projections or the school results. These sessions will create the resource base for using the TVAAS results diagnostically. The activities for teachers, instructional coaches and principals will emphasize differentiated instruction, appropriate use of academic interventions and setting effectiveness expectations for personal professional performance.

As they become available on the website, environmental indicators will be added to the sessions and activities to demonstrate appropriate uses will be included. It would be advantageous to the ultimate success of this project if the inter-governmental agency agreements and information sharing could be piloted in MNPS in the

next year. It would be good to start with a small number of indicators and add to that group as research/interest indicates they are necessary.

It would be advantageous to the ultimate success of this 360 Degree Student View project if some inter-governmental agency agreements and information sharing could be piloted in MNPS in the next year. It would be good to start with a small number of indicators and add to that group as research/interest indicates they are necessary.

**Estimated costs associated with SAS delivery of this project: \$510,000**

Budget detail (also included in budget appendix)

Develop Electronic Learning iPod Sessions, support materials for participants	50,000
Develop professional development tracking functionality	30,000
Facilitating, developing materials for regional PK-12, Higher Education, and Urban Center Sessions (50 days at \$2,000 per day)	100,000
Real Time WebEx Sessions (Includes teachers, principals, instructional coaches, guidance counselors, Special education, ELL & title 1 teachers and curriculum specialists)	270,000
Technical support for creating teacher, principal and guidance counselor accounts	60,000

Timeline

1/30/2010	All LEAs have access to the dashboards reporting on students at their enrolled school
2/28/2010	First regional and higher education information meetings occur.
3/30/2010	All supporting materials and iPod sessions for teachers completed.
4/30/2010	Teacher accounts created for LEAs with capacity to deliver appropriate access files. Second regional and higher education meetings occur
3/1-8/30/2010	Remaining teacher accounts created. Users complete appropriate professional development sessions.
8/30/2010	Professional Development Tracking Functionality operational.

**Estimated SAS contribution for consulting, analyses, application development, printing and travel expenses for piloting in MNPS & MCS: \$120,000**

Tennessee Race to the Top – Appendix C-2-2

**Table 1: Timeline for Implementing New Approaches to Accessing and Using State Data**  
**Reform Plan Criteria C(2) and C(3)**

<p><b>Goal: To ensure that data from the state’s statewide longitudinal data system are accessible to, and used to inform and engage, as appropriate, key stakeholders, and to ensure that data is used to improve instruction.</b></p> <p><b>For all of these activities, the responsible party will be the Tennessee Department of Education (TDOE), in coordination with the SAS Institute (existing state contractor), additional contracted training partner and our statewide research &amp; evaluation team.</b></p> <p>SAS and an external organization will collaborate to deliver statewide supports in the following areas:</p> <ul style="list-style-type: none"> <li>• Building the capacity of teachers and school leaders in the area of balanced assessment</li> <li>• Enhancing educators’ capacity to maximize the robust value-added information at their disposal</li> <li>• Ensuring quality, transparency, and utility in data systems</li> <li>• Providing research and innovation expertise in identifying the impact of specific interventions and determine potential for replication statewide</li> <li>• Supporting districts as they research, develop, implement, and enhance systems of differentiated compensation</li> <li>• Supporting educators in the Coalition of Large School Systems (CLASS) districts that comprise 34% of the students in our state</li> <li>• Supporting a select number of schools in the Rural School Improvement Collaborative</li> <li>• Supporting the Tennessee Department of Education in developing the long-term capacity to deliver the innovative outcomes outlined in the Race to the Top proposal</li> </ul>			
Year 1 2010-11	Year 2 2011-12	Year 3 2012-13	Year 4 2013-14
Equip every teacher with access to value-added data specific to his/her classroom and/or school via the new data dashboard (including account access and passwords).	Monitor and report access and usage of the system on a school and district level.	Monitor and report access and usage of the system on a school and district level.	Monitor and report access and usage of the system on a school and district level.

<p>TDOE will train every teacher and principal in use of value-added data through a partnership with an external organization to focus on using value-added for differentiated instruction, curriculum choices, and more; external organization to train districts in the use of value-added assessment for compensation and direct links to teachers' and principals' evaluation as well.</p>	<p>LEAs conduct annual reviews of their teachers and principals and publicly report data (Appendix D-2-2).</p>	<p>LEAs conduct annual reviews of its teachers and principals and publicly report data (Appendix D-2-2).</p>	<p>LEAs conduct annual reviews of its teachers and principals and publicly report data (Appendix D-2-2).</p>
<p>TDOE will contract for focused support of and consultation to the TDOE staff (regional and in main office) and CLASS to build strong capacity to do this work.</p>	<p>Work with TDOE and CLASS will continue; focused support of and consultation to the Achievement School District and Rural Consortium in this work.</p>	<p>Focused work will continue; ongoing consultation to other districts as needed.</p>	<p>Focused work will continue; ongoing consultation to other districts as needed.</p>
<p>All LEAs have access to the dashboards reporting on students at their enrolled school to affirm the accuracy of the data.</p>	<p>All LEAs have access to the dashboards reporting on students at their enrolled school to affirm the accuracy of the data.</p>	<p>All LEAs have access to the dashboards reporting on students at their enrolled school to affirm the accuracy of the data.</p>	<p>All LEAs have access to the dashboards reporting on students at their enrolled school to affirm the accuracy of the data.</p>
<p>Electronic Learning iPod™ and live interactive WebEx™ training sessions created and</p>	<p>Online access to iPod™ &amp; WebEx™ training developed in year 1. Face-to-face training</p>	<p>Online access to iPod™ &amp; WebEx™ training developed in year 1. Face-to-face training</p>	<p>Online access to iPod™ &amp; WebEx™ training developed in year 1. Face-to-face training</p>

available. Comprehensive training program launched.	sessions captured and available online through the Electronic Learning Center for ongoing access and reference. Training statewide continues.	sessions captured and available online through the Electronic Learning Center for ongoing access and reference. Training statewide continues.	sessions captured and available online through the Electronic Learning Center for ongoing access and reference. Training statewide continues.
Professional Development Tracking Functionality operational.	Professional Development Tracking Functionality ongoing.	Professional Development Tracking Functionality ongoing.	Professional Development Tracking Functionality ongoing.
Establish Tennessee's Consortium on Research, Evaluation, and Development (TN CRED). Outline series of research projects and identify specific areas of expertise that need to be represented. Identify external resource opportunities for funding research and collaborative national efforts for participation.	TN CRED continues work on research and evaluation agenda.	TN CRED continues work on research and evaluation agenda.	TN CRED continues work on research and evaluation agenda.
Benchmark data from the longitudinal data system, TVAAS, and local instructional improvement systems to be available to researchers.	Ongoing data from the longitudinal data system, TVAAS, and local instructional improvement systems to be available to researchers.	Ongoing data from the longitudinal data system, TVAAS, and local instructional improvement systems to be available to researchers.	Ongoing data from the longitudinal data system, TVAAS, and local instructional improvement systems to be available to researchers.
	TDOE teacher and principal evaluation system will be linked to the instructional data system, allowing for alignment and decision-making in the crafting of individualized supports for improving practice.	Enhanced usage of the system on an annual basis.	Enhanced usage of the system on an annual basis.

<p>Teacher and principal preparation programs prepare to include partner developed data training in their coursework (Appendix D-4-1 as well).</p>	<p>Teacher and principal preparation programs to begin including data training in their coursework (Appendix D-4-1 as well).</p>	<p>Teacher and principal preparation programs include data training in their coursework (Appendix D-4-1 as well).</p>	<p>Teacher and principal preparation programs include data training in their coursework (Appendix D-4-1 as well).</p>
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## Tennessee’s Consortium on Research, Evaluation, and Development

### 1. Introduction

Tennessee will use the unprecedented opportunity of Race to the Top to transform the educational experience for children in the state. A comprehensive reform agenda leverages the belief that rigorous standards and assessments, great teaching and great leadership, and high-quality data systems are among the most powerful tools in realizing the academic achievement necessary to prepare all TN students for success in post-secondary education, careers, and citizenship. Tennessee is proposing the formation of a consortium of nationally-prominent contributors and institutions to coordinate and engage in research, evaluation, and development activities to ensure high-quality reform efforts are implemented over time and that lessons learned are accessible to others embarking on such ambitious and ever-important initiatives.

The consortium will put in place a series of investigator led initiatives to assess the success of Tennessee’s innovative reform efforts and identify areas of greatest opportunity and challenge. In doing so, it will provide the intellectual and organizational capacity to inform policies, programs, and practices with research-based evidence; provisions that the state currently could not provide on its own. Furthermore, the consortium fully intends to share findings with other Race to the Top grantees so they too can learn from Tennessee’s reform efforts and experiences.

The subsequent overview is delineated into 5 subsections, including the

- Goals of the consortium.
- Core leadership team and operating principles of consortium.
- Research, evaluation, and development coordinated by the consortium.
- Quality insurance and control.

### 2. Goals of the Consortium

Four goals serve as a guide for the principle activities of the consortium and to help inform Tennessee’s comprehensive reform agenda.

- To support implementation of state and local reform efforts, and ensure all proposed criterion and projected goals are met.

- To put into action high-quality research, evaluation, and development activities aimed at informing how best to reform education and educate children and that capitalize on new scientific opportunities arising from reform investments and accomplishments.
- To synthesize and promote the exchange of high-quality empirical evidence on state-of-the-art initiatives and recent advances in the four principle elements of state reform plans for Race to the Top.
- To stimulate meaningful collaboration among educational researchers, practitioners, and policymakers and encourage these stakeholders to take advantage of the most promising educational reform directions and strategies.

In the first two- to four-months of the project, members of the consortium will draft a multidimensional research, evaluation, and development agenda containing an interrelated set of strategies and targets for achieving Tennessee’s comprehensive reform agenda. The planning process will be informed by input from key stakeholders, organizational partners, and external experts, through meetings convened by the consortium with stakeholders in Tennessee, other Race to the Top grantees, and through interactions with USDOE staff and leadership. Importantly, the strategic direction and activities will be dynamic so that the consortium can respond to opportunities and events as they unfold in real-time.

### **3. Core Leadership Team and Operating Principles**

Professor Matthew Springer (Vanderbilt University; National Center on Performance Incentives) will lead the core leadership team with support from a full-time deputy director. The core leadership team will be installed to provide oversight and direction of all research, evaluation, and development activities associated with Tennessee’s reform agenda. Members of the leadership team will be comprised of prominent researchers, policymakers, and practitioners from across the state of TN as well as contributing experts from across the United States. A preliminary list of the core leadership team members, the role each member will play, and their substantive areas of expertise are displayed in Table 1.

The core leadership team has excellent experience in so-called “risk management elements” endemic to the research and development management process. This includes understanding how to anticipate and prepare for problems, such as possible loss of internal research personnel, field staff, or other assets required to deliver timely and high-quality outcomes. For example, study and project plans will be articulated through detailed work breakdown structures. These will be updated regularly and familiar to all staff associated with the work. In the event that staffs become unavailable for short or even long periods of time due to unforeseen circumstances, these detailed work plans will allow for other team members to step in and take up the work without loss of time or quality. The work plans also will allow for a “dashboard” check of key study or project components so that the core leadership team knows at any time status of the work as regards quality, timelines and budgets.

The core leadership team will also be organized as a highly interactive, collegial system that nevertheless maintains the clear lines of authority and responsibility necessary to insure quality, accountability, direction, and leadership. Recognizing activities of the consortium will be shaped in large part by Tennessee's reform agenda, which is comprised of an interrelated set of innovative activities around four priority areas, the leadership team will engage in interactive lines of work through the consortium, not as independent and separate lines of work. Select activities include:

- Identify and support research, evaluation, and development activities associated with Tennessee's reform agenda.
- Coordinate data and access required to carry out these activities, and regularly verify adherence to applicable laws, rules, regulations, and standards governing human subjects.
- Define the general parameters, cost, and timeline for each activity along with relevant experts and organizations to carry out work.
- Institute a formal review process to guarantee quality assurance and control of all consortium related activities and project deliverables.
- Develop and administer a comprehensive battery of data collection initiatives at regular intervals that not only assesses but also informs the implementation and impact of various reform efforts in both the short- and long-term.
- Monitor progress toward successfully meeting project goals.
- Devise a multi-pronged communications strategy for disseminating high-quality information to key stakeholders about how best to reform education and educate children in Tennessee.

#### **4. Research, Evaluation, and Development Coordinated by Consortium**

Applying scientific methods or other forms of disciplined inquiry are critical in the current context of ambitious and ever-important education reform initiatives. Such inquiry, led by the consortium will include testing hypotheses, building theories, fine tuning elements of an intervention, and assessing program efficacy. The consortium will inform Tennessee's reform efforts with both formative and summative evaluations, though the majority of its work, particularly during the first few years of the grant period, will be formative in nature.

The strength of formative evaluation is its ability to provide ongoing feedback about the process and early outcomes of an initiative or set of initiatives, such as those stemming from Tennessee's reform agenda. In fact, it is critical to ensure quality implementation of reform

activities and to allow both practitioners and policymakers to learn from challenges that arise. A formative evaluation promotes continuous quality improvement of a program or policy innovation rather than solely examining the outcomes of an initiative after it has been completed (i.e., summative evaluation).

As noted earlier, the research, evaluation, and development activities of the consortium are structured around the four priorities identified in the Race to the Top guidelines, which are:

- Rigorous standards and high-quality assessments.
- Attracting and keeping great teachers and great leaders.
- Data systems that inform decisions and improve instruction.
- Innovation and effective approaches to turn-around chronically low-performing schools.

Although the organizational structure and strategic direction of the consortium aims to promote an integrated and coherent scope of activities across the four priorities, the subsequent discussion is limited to a few examples of the type of work the consortium plans to conduct within each of these dimensions due to space constraints. A fifth subsection addresses the rich management information systems available to the consortium.

#### *5.a. Rigorous standards and high-quality assessments*

It is clear that America needs more rigorous academic standards to compete internationally. Tennessee must make college and career readiness the standard for all students. With the advent of national standards and assessments soon to follow, monitoring progress toward new and higher standards will be essential.

From a development perspective, the consortium intends to fully leverage Tennessee's uniquely rich administrative data systems to produce innovative, easily understood reports and communication tools that can be communicated to all key stakeholders. These stakeholders must have access to these information sources so that they can better understand the degree to which students are progressing toward these higher standards (while there is time to make changes) and what the implications are for not reaching (generally speaking, a life with very limited opportunities).

Members of consortium, including Drs. June Rivers and William Sanders, anticipate convening a group of experts in the field to develop "value-added" measures for areas that cannot currently be assessed using a standardized assessment instrument. How can student growth be assessed in art, music, physical education, foreign language, K-2, career technical, etc. in fair and repeatable ways? Recognizing that less than one-third of public school teachers work in a tested grade and subject, it is critical high-quality assessments are developed to assess, develop, and recognize the performance of the other 70 percent of the teaching workforce.

### *5.b. Attracting and keeping great teachers and great leaders*

Tennessee needs to focus on a multidimensional approach to the recruitment and retention of great teachers and great leaders, while also building the capacity of existing Tennessee educators. The consortium will closely monitor the design, implementation, and impact of the many and varied differentiated compensation plans adopted across the state. It is essential that a broad cadre of Tennessee practitioners understand how to help districts overcome both the adaptive and technical challenges inherent in compensation reform.

In terms of building the capacity of existing Tennessee educators, members of the consortium will identify Tennessee educators that have consistently proven to be among the most highly-effective teachers in the state and then conduct a series of focused case studies of those individuals in an effort to inform best practice. Complementing these efforts will be on-line courses and numerous workshops geared toward enhancing teachers' ability to access and make meaning of Tennessee's value-added data systems. Moreover, members of the consortium also intent to assess the technical and substantive properties of a new, more robust, multidimensional teacher evaluation instrument which incorporates multiple data sources and builds on cutting edge information from the field.

### *5.c. Data systems that inform decisions and improve instruction*

Tennessee has one of the nation's premier longitudinal data systems that track students through k-12 public school system. In addition to merging individual data elements into a single comprehensive system, including data on student achievement, student and family demographic information, census information, value-added estimates at multiple levels, revenue and expenditures, etc., the data warehouse will also include college and workforce data elements.

Having a central data repository will enable the consortium and other institutional partners to create innovative tools for superintendents and principals that help them make sense of the patterns and trends in the data, make this information actionable, and identify ways to communicate the information to stakeholders. In essence, Tennessee will have new and innovative, interactive tools that "do the thinking" for practitioners. Their job is to "fix the issue" not to spend countless time and energy navigating data system to try to "identify the issue."

### *5.d. Innovation and effective approaches to turn-around chronically low-performing schools*

The systems that have produced the current results are uniquely designed to do so. It is clear, however, that school turnaround is possible and in the case of many school systems across the country necessary. The turn-around system must insure the right people are in place, they have access to and the ability to digest the best information, and are engaging in research-based best practices.

### *5.e. Availability and use of high-quality education data*

Teacher-level value-added will play a large role in Tennessee's Race to the Top reform efforts. When the general assembly changed the law in early January 2010 the ability for practitioners, researchers, and other stakeholders to access this information was greatly enhanced. For example, our core research team will have access to longitudinal data on estimated effectiveness of middle school teachers from the mid-1990s to present. The Tennessee Longitudinal Data System (TLDS), which is funded by the U.S. Department of Education, is another rich data repository that enables the consortium to address critical issues aligned with Race to the Top priorities.

The consortium will also monitor data quality issues, an aspect of data management that has gone largely unrecognized. Our team has extensive experience with state-of-the-art technology solutions to insure the attribution of teacher effect is accurate and that all data interfaces have a common "brand experience" by continuously gather feedback from the field as to how these interfaces can improve.

The consortium will further benefit from a comprehensive battery of data collection initiatives that will be administered at regular intervals throughout the grant period. This information will help to inform implementation and assess the impact of various reform efforts in both the short- and long-term. In addition to collecting data on specific interventions in the field, we anticipate regularly administering surveys if teacher and principal behavior / attitudes, institutional and organizational dynamics, and student perceptions. This includes information about professional development activities, support and resources, instructional leadership, instructional practices, etc.

### **Quality Assurance and Control**

The consortium will implement a quality assurance process that includes an internal and external review of all programmatic efforts before they are approved for implementation and then again before findings are disseminated to the field. All research and development activities and all products and services developed by the consortium under Tennessee's Race to the Top application, including training modules, professional development and technical assistance activities, and all substantive materials intended for broad distribution (*e.g.*, written documents, research, policy or evaluation reports, training manuals, curriculum materials, video and audio programs, or Web-based products and resources) will be subject to an internal review. Internal review criteria include:

- Effectively meeting an identified, high-priority need.
- Demonstrating a sound research and/or evidence base.

- Having a clearly defined purpose and audience, and a feasible design, dissemination and implementation (if applicable) plan.
- Being delivered in a format and presented in a style that is useful to clients.
- Representing the best available knowledge drawn from research and practice.
- Adhering to high standards for useful, ethical, valid, and reliable inquiry, applied research, and evaluation studies.

These same products and services will also be subject to external review. Reviewers will be drawn from various local, state, and national sources, including advisory networks, institutes of higher education, research centers, state education agencies, professional organizations, and regional laboratories. Designs for research studies, as well those for development of substantive services and products, will undergo external review against rigorous criteria aligned with IES standards for high quality. A Technical Working Group (TWG) convened for the purpose of ensuring high standards of rigor in the research, evaluation, and development activities may also part of the quality review process. And, of course, USDOE will play a significant and delineated role in this review process.

<b>Name</b>	<b>Role</b>	<b>Areas of Expertise</b>
Matthew G. Springer <i>Vanderbilt University; National Center on Performance Incentives; National Center on School Choice</i>	Chair	Teacher compensation reform; teacher labor markets; teacher effectiveness; school accountability; school choice; school finance.
William Sanders <i>SAS / University of North Carolina</i>		Value added data
June Rivers <i>SAS / University of North Carolina</i>		Value added data
David Wright <i>Tennessee Higher Education Commission</i>		
William F. Fox <i>University of Tennessee; Center for Business and Economic Development</i>		
Bryan C. Hassel <i>Public Impact</i>		School accountability; school choice; turnaround schools; data management
Keel Hunt <i>The Strategy Group</i>		Media relations and public affairs
Tony Bagshaw <i>Battelle for Kids</i>		Dashboards, implementation, training, value-added measurement, high school reform, end of course assessment
Melissa Brown <i>Tennessee Education Association</i>		Research and evaluation
Susanna Loeb		

<i>Stanford University; Center for Education Policy Analysis</i>		
Steve Elliott Vanderbilt University; Learning Sciences Institute		Assessment of children’s social skills and academic competence, development and validation of testing accommodations and alternate assessments for evaluating the academic performance of students with disabilities and the design and evaluation of tests and assessments of human performance
J.R. Lockwood RAND Corporation		Value-added assessment and quantitative research methods
Brian Jacob University of Michigan		Teacher and principal labor markets, educational evaluation and policy analysis, and quantitative research methods
Ellen Goldring Vanderbilt University		Principal leadership, assessment, school choice.
Additional team members will be added as needed.		

## Tennessee Race to the Top – Appendix C-3-2

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### **Supporting Tennessee Districts, Schools and Teachers in Using Data for Decision Making**

Tennessee will contract with a national not-for-profit organization that provides strategic counsel and innovative solutions for today’s complex educational-improvement challenges. An organization with a mission-driven team of education, technology, communications and business professionals specializes in the creation and implementation of value-added analysis, formative assessment, strategies for recognizing and rewarding teaching excellence and performance management initiatives. It should be willing to partner with the state department of education and school districts to deliver personalized solutions designed to improve teaching and learning and maximize opportunities for all students to thrive in college, in their careers and in life.

The organization must have demonstrated experience helping educators build their capacity around school improvement. The partnership approach focuses on working with education organizations to accelerate student performance by focusing their efforts on the “right people, right metrics and right practices.” Specifically, the organization’s technology solutions, value-added professional development, change management counsel, communications expertise, innovative thinking, balanced assessment capability and ability to provide support for differentiated compensation programs reflect a broad, deep and systemic view of educational reform.

The goal of the work for this organization will be to accomplish the following statewide:

#### **1. Build the capacity of teachers and school leaders statewide in the area of balanced assessment**

A balanced assessment system must be used to improve student learning, not just prove if students are learning. Broadly, robust value-added analysis provides the large-scale assessment of how the current instructional program and delivery are benefitting student learning. Short-cycle benchmark assessments provide information on how students are mastering the big ideas at specific intervals. But, teachers’ ability to formatively use information in real time to constantly differentiate instruction for students creates the greatest impact.

Research repeatedly confirms the significant impact of highly effective formative assessment practices. While teaching is a complex process, formative assessment is an essential tool in a teacher’s toolbox. The organization must have developed proven professional development protocols to build teacher and leader capacity related to balanced assessment systems. These systems have been delivered across the country and internationally. Teachers and leaders build their capacity to create balanced assessments systems, with a focus on formative assessment, through face-to-face professional development and online course work combined with other support systems.

#### **2. Enhance Tennessee educators’ capacity to maximize the robust value-added information at their disposal**

Through SAS® TVAAS®, Tennessee has a world-class system of value-added reports available for use in the school improvement process. SAS® has provided Tennessee educators support in the interpretation of their data for years and that capacity built upon and increased. The organization must welcome the opportunity to work with the SAS® TVAAS® staff to provide multi-modal value-added professional development in Tennessee.

### **3. Support Tennessee districts as they research, develop, implement and enhance systems of differentiated compensation**

The organization will deliver an educational-improvement and performance-management model, which also includes a differentiated-compensation program.

Implementing differentiated compensation poses adaptive and technical challenges for practitioners. Professional, targeted and systemic communication efforts are required to overcome the adaptive challenges of differentiated compensation that exist in all school cultures. Simply put, “People are down on what they are not up on.” Once the adaptive challenges are overcome, extensive technical challenges must be met. Districts must ensure the quality of data inputs, data processes and data outputs. Districts must have technology tools that clearly define eligibility and award models for individuals, as well as inquiry processes to resolve special cases and highlight areas of the compensation model that require improvement.

### **4. Ensure quality, transparency and utility in data systems**

Most educational data systems in America are currently inadequate to feed and inform robust, data-driven school improvement efforts—especially in cases where near perfect levels of accuracy are required. These systems were never designed for these purposes. An excellent data system ensures quality at the input, process and output levels. ensures data quality and data transparency at the input level as teachers and principals verify and adjust the data in the system to accurately reflect instructional practices in classrooms.

Tennessee educators also need processes that inform their decision-making. What are the “early warning” data that provide insight into a student’s probability of dropping out of high school, and what process ensures this information is accurately vetted, collected and delivered to key decision-makers?

Finally, educators need information distilled and displayed at that output level in forms that are easy to access, understand and make actionable.

### **5. Provide research and innovation expertise**

Working with like-minded institutions in Tennessee, the organization will quantitatively identify highly effective teachers and principals. These individuals will be brought together to collaborate and glean important and replicable lessons. Then, the organization will provide a system and tools to replicate those best practices across the state of Tennessee.

Educational systems struggle to “parse out” the impact specific interventions in the field. The organization will work with like-minded entities in Tennessee to design specific interventions and to robustly examine the efficacy of those interventions to determine which should be considered on a statewide level.

### **6. Support Tennessee educators in a rural school improvement collaborative(s)**

The organization must have demonstrated success worked with Appalachian districts in Ohio to secure support from union leaders, superintendents and board members to bring together stakeholders and dramatically improve results in these districts. Rural leaders are typically challenged by

responsibilities in a multitude of areas which make focused school improvement efforts challenging. Rural leaders need tools, resources and support for their districts. Those resources are best delivered via a consortium structure that creates an efficient and effective delivery system.

The organization will partner with sponsoring consortium partners to work with rural Tennessee districts to research, design and deliver school improvement efforts that may include:

- Aggressive goals and clear measures of success
- Maximizing the impact of the value-added data available in Tennessee
- Assessment literacy and use of data to inform decisions
- Embedded professional development, coaching and mentoring
- Extensive collaboration within schools, between schools and between districts
- Career ladders and differentiated compensation
- Use of technology to enhance learning opportunities for teachers and leaders
- Development of broad and deep relationships with higher education institutions
- Community engagement – parents, business, elected officials, etc.
- Participation in research
- High school reform
- Independent evaluation of projects

#### **7. Support Tennessee educators in an urban school improvement collaborative including Nashville, Knoxville, Chattanooga, Shelby County and Memphis**

While urban settings have unique challenges, they offer tremendous opportunity for impact based on sheer size. It is essential to have a highly involved and skilled partner that can collaborate on the essential work of the improvement effort, and is highly connected to, but outside of the traditional bureaucratic processes. The burden on key leaders to “fly the plane” makes designing and implementing a “new and better plane” on their own virtually impossible.

Effective school reform must be comprehensive and focused. In the end, it will only succeed with the right people, monitoring the right metrics, engaging in the right practices. will engage with key leaders to design and deliver a comprehensive and focused effort that may include:

- Maximizing the impact of the value-added data available in Tennessee
- Assessment literacy and use of data to inform decisions
- Embedded professional development, coaching and mentoring
- Extensive collaboration within schools, between schools and between districts
- Career ladders and differentiated compensation
- Use of technology to enhance learning opportunities for teachers and leaders
- Development of broad and deep relationships with higher education institutions
- Community engagement – parents, business, elected officials, etc.
- Participation in research
- High school reform
- Independent evaluation of the project

#### **8. Support Tennessee in the enhancement of the state’s long-term capacity to deliver the innovative outcomes outlined in the Tennessee’s *Race to the Top* Grant**

Tennessee has existing educational support structures that have provided quality service to the state. Structures such as the state's university system, community college system and Regional Field Service Centers have provided this support. The goals outlined in Tennessee's *Race to the Top* Grant are innovative and transformative.

The organization will help build this capacity through enhancing existing structures and creating new structures, if necessary, to serve the state's diverse needs. Centers for Excellence will be established with the capacity to support urban and rural improvement consortiums, high school redesign and reform, differentiated compensation, and professional development around the use of value-added and formative assessment at nine locations in Tennessee. The organization will enhance the capacity of existing structures to ensure that these structures can move this work forward at the close of the *Race to the Top* Grant.

## Tennessee Race to the Top – Appendix D-1-1

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**T.C.A. 49-5-108(a)** gives the Board of Education jurisdiction over granting teacher licenses, including creating pathways for alternative providers. See Appendix D-1-2 for rules regarding alternative providers.

### **49-5-108. Jurisdiction of state board of education. —**

**(a)** Complete jurisdiction over the issuance and administration of licenses for supervisors, principals and public school teachers for kindergarten through grade twelve (K-12), including teachers in preschools operated under the authority of chapter 6, part 1 of this title, shall be vested in the state board of education.

**(b)** The licenses shall be uniform for all the school systems in the state.

**(c)** The state board of education is authorized, empowered and directed to set up rules and regulations governing the issuance of licenses for supervisors, principals and public school teachers. These rules and regulations shall prescribe standards controlling the issuance and renewal of all licenses and permits; provided, that:

**(1)** If a license is issued, it shall not be to an applicant who has less than four (4) years of general or technical and professional training beyond the twelfth grade;

**(2)** No increase in the minimum requirements for licenses shall become effective until at least one (1) year after promulgation of the increase by the state board of education;

**(3)** Vocational or trades teachers shall be certified on the basis of qualifications prescribed in the state plan for vocational education prepared by the state board for vocational education and

approved by the United States department of education; and

**(4)** Active or retired military personnel who seek to serve as junior reserve officers' training corps (JROTC) instructors shall be licensed to teach JROTC and military science in grades nine through twelve (9-12) based on documented military JROTC certification issued upon successful completion of all JROTC preparation requirements specific to the person's branch of military service. JROTC instructors so licensed shall not be licensed to teach courses other than JROTC and military science, and LEAs shall not employ persons licensed only as JROTC instructors to teach courses other than JROTC or military science. Such restrictions to licensure, however, shall not impinge the granting of state-approved equivalency credits received through a JROTC or military science course.

**(d) (1)** The state board of education has the authority to promulgate rules and regulations prescribing minimum standards for licenses and certificates differing from the requirements prescribed in this chapter.

**(2)** The state board of education is authorized to establish guidelines, through the promulgation of rules and regulations in accordance with the Uniform Administrative Procedures Act, compiled in title 4, chapter 5, to suspend, deny or revoke the license or certificate of a teacher who is delinquent or in default on a repayment or service obligation under a guaranteed student loan, identified in § 63-1-141(a), or if the teacher has failed to enter into a payment plan or comply with a payment plan previously approved by TSAC or a guarantee agency.

**(e)** The department of education shall encourage institutions with authorized teacher training programs to evaluate all the teacher training programs to assure that persons seeking licensure in this state will have had appropriate instruction in the teaching of reading.

**(f) (1)** The state board of education, with the assistance of the department of education and the Tennessee higher education commission, shall develop a report card or assessment on the effectiveness of teacher training programs. The state board of education shall annually evaluate

performance of each institution of higher education providing an approved program of teacher training and other state board approved teacher training programs. The assessment shall focus on the performance of each institution's graduates and shall include, but not be limited to, the following areas:

(A) Placement and retention rates;

(B) Performance on PRAXIS examinations or other tests used to identify teacher preparedness; and

(C) Teacher effect data created pursuant to §49-1-606.

(2) Each teacher training institution and each LEA shall report all data as requested by the state board of education that the board needs to make the evaluation. The report card or assessment shall be issued no later than November 1 of each year.

**Transitional Licensure Policy**

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**The Background:**

On December 15, 2008, the State Board of Education adopted a rule that establishes the new Transitional License. The new license replaces the current Alternative Type I, Alternative Type II, and Teach Tennessee licenses. A transitional license teacher preparation program is a pathway for talented, committed individuals with at least bachelor's degrees to enter the teaching profession. Transitional licensure preparation programs may be offered by Tennessee institutions of higher education (IHEs) in partnership with Tennessee local education agencies (LEAs), Tennessee LEAs, education-related organizations in partnership with Tennessee LEAs, and the continuation of the Teach Tennessee program offered by the Department of Education (DOE).

In order to implement the rule, the Transitional Licensure Policy has been developed. Among many components, the policy includes the identification of the standards transitional licensure programs must adhere to, candidate eligibility criteria, teacher preparation requirements, transitional licensed teacher evaluation expectations, licensure renewal conditions, and transitional licensure preparation program approval procedures.

Attached are the following five (5) companion documents: 1) Transitional Licensure Policy; 2) Appendix A: List of Preconditions; 3) Appendix B: Teacher Education Unit Standards; 4) Appendix C: Professional Education Core Competencies; and 5) Appendix D: Test Requirements for Second Renewal of the Transitional License.

**Master Plan Connection:**

This item advances the Board's *Master Plan* by encouraging talented, committed individuals with bachelor's degrees and content area expertise to become effective teachers in Tennessee schools.

**The Recommendation:**

The Department of Education staff recommends adoption of this item on final reading. The SBE staff concurs with this recommendation.

**TENNESSEE  
TRANSITIONAL  
LICENSURE POLICY**



**TENNESSEE STATE  
BOARD of EDUCATION**

**JULY 31, 2009**

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## **Transitional Licensure Policy**

Date Standards Adopted or Most Recent Revision: July 31, 2009

Date Programs Must Submit To DOE: Current

Date Candidates Must Meet Standards: September 1, 2009

The purpose of transitional licensure preparation is to recruit and select highly qualified individuals, ranging from promising recent college graduates to seasoned professionals, who can bring maturity and a variety of work experiences to the teaching profession and prepare them for successful teaching in Tennessee schools.

Transitional licensure preparation programs may be offered by Tennessee institutions of higher education (IHEs) in partnership with Tennessee local education agencies (LEAs), Tennessee LEAs, education-related organizations in partnership with Tennessee LEAs, and the Tennessee Department of Education (DOE). Transitional licensure programs are based on teacher preparation standards adopted by the Tennessee State Board of Education (SBE). Although the SBE adopted standards establish a foundation for teacher preparation program development, transitional licensure programs may and are encouraged to include components that exceed the adopted standards.

Characteristics of transitional licensure preparation programs include, but are not limited to, the active recruitment and rigorous selection of individuals who have demonstrated content area expertise, innovative streamlined opportunities for transitional licensed teachers to acquire the professional education competencies, partnerships with local education agencies, immersion of transitional licensed teachers in classroom environments as teachers of record, and induction/ mentoring and professional development support for transitional licensed teachers.

### **I. Transitional License**

The Transitional License is valid for one school year and issued to candidates with a bachelor's degree who have verified knowledge of the teaching content area, have been offered employment as a teacher of record. In addition, candidates must be eligible for admission, admitted to, or enrolled in an approved transitional licensure preparation program. The Transitional License is renewable two (2) times upon satisfactory progress toward completion of the approved transitional licensure preparation program. Individuals may teach on a transitional or alternative license, of any kind, for a maximum of three years.

### **II. Candidate Eligibility**

- A. Candidates must have earned at least a bachelor's degree from a regionally accredited institution of higher education.
- B. Candidates must verify teaching content area requirements by one of the following:

1. Completion of an academic major in the teaching content area;  
or
  2. Documentation of at least twenty-four (24) semester hours in the teaching content area; or
  3. Successful completion of Praxis II content knowledge test required for each teaching area endorsement sought.
- C. Candidates are eligible to be employed on the Transitional License in all teaching areas. Teaching areas refer to employment as teachers of record and assignment to classrooms for providing direct, on-going instruction to students. Transitional licensed teachers may be assigned to itinerant teaching positions such as special education teachers who provide direct instruction to students in more than one school.
- D. In addition to the Professional Education Core Competencies, candidates may be required to address any identified knowledge and skill deficiencies specified for the teaching content area.
- E. Candidates must be eligible for admission, admitted to, or enrolled in an approved transitional licensure preparation program.
- F. Individuals may be employed as a School Counselor on the Transitional License. The School Counselor Program Implementation Standards of the SBE adopted School Counselor licensure standards describe the eligibility requirements. The program components of the Transitional License Policy do not apply to School Counselors employed on the Transitional License.

### **III. Organizations Eligible to Offer Transitional License Preparation Programs and Eligibility Requirements**

Organizations seeking approval to offer transitional licensure preparation programs and to recommend candidates for licensure must meet the respective eligibility criteria.

- A. Tennessee IHEs approved by the SBE for teacher education in partnership with Tennessee LEAs.
1. Preconditions (Appendix A).
  2. Professional Education Unit Standards (Appendix B).
  3. Professional Education Core Competencies (Appendix C).
- B. Tennessee LEAs.
1. Preconditions (Appendix A) including verification of SACS District Accreditation or approved (DOE category 1, 2, 3, and/or 7) non-public school/school system.
  2. Professional Education Unit Standards (Appendix B).

3. Professional Education Core Competencies (Appendix C).
- C. Education-related Organizations in partnership with Tennessee LEAs.
1. Preconditions (Appendix A).
  2. Professional Education Unit Standards (Appendix B).
  3. Professional Education Core Competencies (Appendix C).
- D. Tennessee DOE Teach Tennessee Program.
- Professional Education Core Competencies (Appendix C).

#### **IV. Transitional Licensure Preparation Program Requirements**

- A. All transitional licensure preparation programs must adhere to the provisions of the legislatively mandated *Tennessee Teacher Quality Report Card*.
- B. Programs offered by Tennessee IHEs in partnership with Tennessee LEAs as approved through the previously SBE adopted *Alternative Preparation for Licensure Policy* (November 3, 2006) and the DOE Teach Tennessee program may continue program implementation as previously approved. The previously approved programs will recommend program candidates for the Transitional License beginning with the effective date this policy.
- C. Programs offered by Tennessee LEAs and Education-related Organizations in partnership with Tennessee LEAs must include:
1. Verification the program is based on well documented LEA needs. Evidence of LEA needs may include, but are not limited to, items such as use of permits, use of waivers, student performance data on state mandated tests, ACT/SAT performance results, graduation rates, changes in student demographics (e.g., increase in ELL students) etc.;
  2. Proven candidate recruitment, selection, and retention components;
  3. Candidate GPA requirement for admission is based on a minimum undergraduate cumulative GPA of 2.75 or 3.0 in the last 60 hours;
  4. Candidates have been offered employment by a Tennessee LEA or approved (DOE category 1, 2, 3, and/or 7) non-public school/school system;
  5. Candidate preparation based on the Professional Education Core Competencies (Appendix C) delivered in two (2) phases, an

orientation component and a professional development component;

6. Induction and mentoring components that continue across the full period of transitional licensure for each transitional licensed teacher and are linked to teaching quality and effectiveness;
  - a. Transitional licensed teachers shall receive support from one or more mentor teachers, who have received training in the mentoring process and their role and responsibilities.
  - b. Transitional licensed teachers and their mentors shall receive ongoing professional development.
  - c. Mentors shall meet regularly and frequently with each transitional licensed teacher. Support from mentors and other professional development activities relevant to the needs of transitional licensed teachers will be at least 100 hours during the first year of transitional licensure and 50 hours during each of the second and third years of transitional licensure.
7. Address funding and cost matters including;
  - a. The costs associated with the delivery of the Professional Education Core Competencies;
  - b. Mentoring, including training of mentors, stipends for mentors, released time, and substitute teacher reimbursement; and
  - c. Salary of the teacher employed on the Transitional License.

**V. Teacher Evaluation, Licensure Renewal and Licensure Advancement**

- A. LEAs shall assess the effectiveness of teachers employed on the Transitional License each year using the same evaluation procedures used in evaluating all other teachers as approved by the SBE.
- B. Each year of successful teaching on a transitional license shall count as one year toward a professional license.
- C. One full year (minimum of ten months full time) of successful teaching shall substitute for the student teaching requirement once the transitional licensure preparation program is completed following the first year of teaching. If completion of the transitional licensure preparation program requires two (2) or more years, then two (2) years of successful teaching shall substitute for the student teaching requirement.

- D. Candidates must successfully complete the orientation component of the Professional Education Core Competencies before the first renewal of the Transitional License (Appendix C).
- E. For second renewal of the Transitional License, candidates must take and pass the Praxis II tests for each endorsement sought as listed in Appendix D.
- F. The transitional licensed teacher will be eligible for apprentice or professional licensure upon the following:
  - 1. Recommendation by the employing LEA superintendent/director of schools for advancement to the apprentice or professional license in accordance with successful completion of local evaluation procedures. Recommendation for apprentice or professional licensure by the school system does not require re-employment;
  - 2. Verification by the approved transitional licensure preparation program of successful completion of the Professional Education Core Competencies (Appendix C), including, if applicable, official transcripts of any additional courses for credit completed;
  - 3. Verification that all required licensure examinations have been passed; and
  - 4. Submission by the teacher of the completed application for advancement to apprentice or professional licensure to the Department of Education, including all required official transcripts and verifications noted above.

## **VI. Program Approval**

The approval of transitional licensure preparation programs is conducted in a similar manner as the approval of other teacher education programs. The DOE implements approval procedures and makes recommendations for SBE final approval. Approval procedures include:

- A. Submission of documentation that supports compliance with each the Preconditions (Appendix A) to determine institutional/organizational eligibility;
- B. Submission by eligible institutions/organizations of a program proposal for conditional approval that includes an alignment of the program with eleven (11) professional education core competences (Appendix C);
- C. Completion of either an on-site program evaluation or off-site program defense conducted by the State Board of Examiners that focuses on compliance with six (6) professional unit standards (Appendix B), and verification of program compliance with the eleven (11) professional education core competencies (Appendix C);

- D. DOE completion of approval procedures and submission of action recommendations to the SBE; and
- E. SBE final approval action.

**VII. Out-of State and On-line IHEs or Education-related Organizations in Partnership with Tennessee LEAs**

For the employment of transitional licensed teachers, the section that follows applies to partnerships developed among out-of-state or on-line IHEs and Tennessee LEAs or Education-related Organizations that do not have a physical presence in Tennessee and Tennessee LEAs. These programs are not subject to Tennessee program approval described in section VI above. The DOE will determine approval/recognition status of out-of-state or on-line programs after reviewing and evaluating any DOE requested information and material.

- A. **Candidate Eligibility.** All candidates seeking transitional licensure through an out-of-state or on-line program must:
  - 1. Have at least a bachelor's degree from a regionally accredited institution of higher education;
  - 2. Meet the teaching content area knowledge requirements through one of the following:
    - a. Completion of an academic major in the teaching content area; or
    - b. Documentation of at least twenty-four (24) semester hours in the teaching content area; or
    - c. Successful completion of Praxis II content knowledge test required for each teaching area endorsement sought.
  - 3. Have a verifiable affiliation with an out-of-state or on-line IHE/Education-related Organization that is;
    - a. Regionally accredited or the equivalent for Education-related Organizations (Appendix A, Precondition 8), and
    - b. State approved for teacher preparation, by at least one state other than Tennessee, for the licensure endorsement program(s) and appropriate grade level range for the Tennessee endorsement(s) sought; and
  - 4. Have obtained an "intent to hire" statement, including a commitment to provide mentoring, from a Tennessee LEA that submits completed applications for the Transitional License,

with supporting documentation, to the Tennessee State Department of Education Office of Teacher Licensing.

B. **Renewal/Annual Progress.** For first renewal, teachers employed on the Transitional License through an out-of-state or on-line program must demonstrate annual progress toward completion of the applicable licensure requirements. The employing LEA must provide a recommendation in accordance with local evaluation procedures and submit verification of the teacher's adequate progress toward completing:

1. The requirements of an approved out-of-state or on-line program; or
2. The eleven Tennessee Professional Education Core competencies (Appendix C).
3. For second renewal of the Transitional License, candidates must take and pass the Praxis II tests for each endorsement sought as listed in Appendix D.

C. **Teacher Evaluation and Apprentice or Professional Level Licensure**

1. **Teacher Evaluation.** The principal, or designee, will be responsible for evaluation of the teaching performance of the teacher.
2. **Apprentice or Professional Licensure.** The teacher will be eligible for apprentice or professional level licensure upon the following:
  - a. Verification by the employing LEA that the teacher has received mentoring and professional development consistent, to the fullest extent possible, with above section IV.C.6.a.-c. It is understood that the collaborative planning between the employing LEA and out-of-state or on-line program may vary.
  - b. Recommendation by the employing LEA for the apprentice license in accordance with local evaluation procedures. Recommendation for apprentice level licensure requires a minimum of two years teaching on the Transitional License for candidates enrolled in out-of-state or on-line programs;
  - c. Verification by the out-of-state or on-line program of successful completion of one of the following:
    1. The requirements of the out-of-state or on-line state approved program (other than Tennessee); or

2. The eleven Tennessee Professional Education Core Competencies.
3. Verification that required licensure tests required by Tennessee have been passed; and
4. Submission by the teacher of the completed application for apprentice licensure to the Tennessee State Department of Education Office of Teacher Licensing, including all required official transcripts and/or verifications noted above.

#### **VIII. Effective Dates**

- A. Candidates will meet the requirements for Transitional Licensure no later than school year 2009-2010.
- B. Alternative License Type I and Alternative License Type II, will not be issued for school year 2009-2010. Candidates with one (1) or two (2) years of remaining eligibility on Alternative License Type I or Alternative License Type II will be issued the Transitional License for the remaining years of eligibility once applicable renewal requirements are met.
- C. The preconditions documentation (Appendix A) and transitional licensure program proposals that address the eleven (11) professional education core competencies (Appendix C) must be submitted to the DOE not less than 90 days prior to the school year for which approval to begin program implementation is sought. (During the first year of policy implementation, 2009-2010, accommodations may be made regarding this requirement.)

## **Transitional License Teacher Education Program: Appendix A**

### **List of Preconditions and Documentation\***

**Precondition #1. The institution/organization recognizes and identifies a teacher education unit that has responsibility and authority for the preparation of teachers and other teacher education personnel.**

**1.1** A letter from the institution's/organization's chief executive officer that designates the unit as having primary authority and responsibility for teacher education programs.

**1.2** A chart or narrative that lists all teacher education programs offered by the institution/organization (including any nontraditional/alternative programs). The chart or narrative report should depict all of the following that apply: (a) the degree or award levels for each program; (b) the administrative location for each program—for example, School of Education, Department of Music; and (c) the structure or structures through which the unit implements its oversight of all programs. If the unit's offerings include off-campus programs, a separate chart or narrative as described above should be prepared for each location at which off-campus programs are geographically located.

**1.3** An institutional/organizational chart of the institution/organization that depicts the teacher education unit and indicates the unit's relationship to other administrative units within the institution/organization.

**Precondition #2. A dean, director, or chair is officially designated as head of the teacher education unit and is assigned the authority and responsibility for its overall administration and operation.**

**2.1** The job description and resume for the institution's/organization's head of the teacher education unit.

**Precondition #3. Written policies and procedures guide the operations of the teacher education unit.**

**3.1** The cover page and table of contents for the documents that contain codified policies and procedures for the unit's operations, including policies and procedures pertaining to its candidates. [If policies and procedures are located on the Internet, photocopies of appropriate web page(s) that indicate links to applicable policies and procedures may be submitted as documentation for this precondition.]

**Precondition #4. The teacher education unit has a well developed conceptual framework that establishes the shared vision for a unit's efforts in preparing educators to work in P-12 schools and provides**

**direction for programs, courses, teaching, candidate performance, scholarship, service, and unit accountability.**

**4.1** A statement of the vision and mission of the institution/organization and unit.

**4.2** A statement of the unit's philosophy, purposes, and goals.

**4.3** A statement of the knowledge bases, including theories, research, the wisdom of practice, and education policies, that inform the unit's conceptual framework.

**4.4** A description of candidate proficiencies aligned with the expectations in professional, state, and institutional/organizational standards.

**4.5** A description of the system by which the candidate proficiencies described in 4.4 are regularly assessed.

**Precondition #5. The teacher education unit regularly monitors and evaluates its operations, the quality of its offerings, the performance of candidates, and the effectiveness of its program completers.**

**5.1** A description of the unit's system for evaluating its operations, the quality of its offerings, the performance of candidates, and the effectiveness of its program completers.

**Precondition #6. The teacher education unit has published criteria for admission to and exit from all initial teacher preparation and advanced programs and can provide summary reports of candidate performance at exit.**

**6.1** A photocopy of institution/organization published documentation (e.g., from a catalog, student teaching handbook, application form, or web page) listing the basic requirements for entry to, retention in, and completion of teacher education programs offered by the institution/organization, including any nontraditional/alternative and off-campus programs.

**6.2** A brief summary of candidate performance on assessments conducted for admission into programs and exit from them. This summary should include (a) the portion of Title II documentation related to candidate admission and completion that was prepared for the state and (b) compilation of results on the unit's own assessments.

**Precondition #7. The teacher education unit's programs are approved by the appropriate state agency or agencies, and, in states with educator licensing examinations and required pass rates, the unit's summary pass rate meets or exceeds the required state pass rate.**

**7.1** The most recent state approval letters, including or appended by a list of approved programs. If any program is not approved, the unit must provide a statement that it is not currently accepting new applicants into the non-approved program(s). For programs that are approved with qualifications or are pending approval, the unit must describe how it will bring the program(s) into compliance.

**7.2** Documentation submitted to the state for Title II Higher Education Act reports, indicating that the unit's summary pass rate on state licensure examinations meets or exceeds the required state pass rate. If the required state pass rate is not evident on this documentation, it should be provided on a separate page. (This provision does not apply to units in states without examination requirements or required pass rates for licensure.)

**Precondition #8. The institution/organization is accredited, without probation or an equivalent status, by the appropriate institutional/organizational accrediting agency recognized by the U.S. Department of Education.**

**8.1.a.** Current accreditation letter and/or report that indicates institutional/organizational accreditation status.

OR

**8.1.b.** Providers ineligible for accreditation must submit a clean audit, a business plan, and the answers to the following questions:

1. What security measures are taken by the unit to ensure the security and integrity of student records?
2. What documentation does the unit have to demonstrate that facilities are safe, secure, and healthy?
3. What are the unit's policies that ensure the availability of information about governing board members, faculty, and administrators?
4. What are the unit's policies related to requirements for degrees, certificates, and graduation; fees and other financial obligations of students; conflicts of interest; and non-discrimination and sexual harassment?
5. What are the unit's personnel qualifications and staffing ratios for support services?
6. What are the unit's policies related to faculty tenure, grievance, and discipline?
7. What are the policies related to academic and intellectual freedoms?

**8.1.c.** Education-related organizations that are not higher education institutions must also submit:

1. Clean independent audits of a full set of financial statements of the legal entity offering teacher education programs for the three years prior to submission of a program proposal which provide evidence regarding compliance with these preconditions. The audits should meet the standards of the American Institute of Certified Public Accountants or other appropriate accounting standards generally accepted in the U.S.
2. The legal entity's 990 Form (non-profit organizations) or corporate income tax returns (for-profit organizations) for the past year.
3. A business plan. The business plan should include:
  - a. A business model that briefly describes the services to be delivered, the area to be served, the current and projected number of candidates, recruitment activities, a description of faculty, tuition costs, a budget narrative, etc.;
  - b. The most current approved unit budget;
  - c. Revenue and expense projections for the next two years, including funding streams, the length and percentage of funding from foundation grants, appropriated governmental funds, tuition, funds from elsewhere in the legal entity or its affiliates; costs of facility, payroll, maintenance, etc.;
  - d. A one to two page narrative describing unit revenue and expenditure projections for the next 4 years;
  - e. A one to two page narrative describing the relationship between the unit and the legal entity offering the educator preparation programs; and
  - f. If tuition based, the tuition refund policy should the transitional licensure preparation programs be discontinued by the unit.

\* Adapted from NCATE. For more information, go to NCATE web page <http://www.ncate.org/institutions/preconditions.asp?ch=46#list>

## **Transitional License Teacher Education Program: Appendix B**

### **Teacher Education Unit Standards\***

#### **Conceptual Framework**

A conceptual framework establishes the shared vision for a unit's efforts in preparing educators to work in P-12 schools. It provides direction for programs, courses, teaching, candidate performance, scholarship, service, and unit accountability. The conceptual framework is knowledge-based, articulated, shared, coherent, consistent with the unit and/or institutional mission, and continuously evaluated. The conceptual framework provides the bases that describe the unit's intellectual philosophy and institutional standards, which distinguish graduates of one institution from those of another.

#### **Standard 1:** *Candidate Knowledge, Skills, and Professional Dispositions*

Candidates preparing to work in schools as teachers or other school professionals know and demonstrate the content knowledge, pedagogical content knowledge and skills, pedagogical and professional knowledge and skills, and professional dispositions necessary to help all students learn. Assessments indicate that candidates meet professional, state, and institutional standards.

#### **Standard 2:** *Assessment System and Unit Evaluation*

The unit has an assessment system that collects and analyzes data on applicant qualifications, candidate and graduate performance, and unit operations to evaluate and improve the performance of candidates, the unit, and its programs.

#### **Standard 3:** *Field Experiences and Clinical Practice*

The unit and its school partners design, implement, and evaluate field experiences and clinical practice so that teacher candidates and other school professionals develop and demonstrate the knowledge, skills, and professional dispositions necessary to help all students learn.

#### **Standard 4:** *Diversity*

The unit designs, implements, and evaluates curriculum and provides experiences for candidates to acquire and demonstrate the knowledge, skills, and professional dispositions necessary to help all students learn. Assessments indicate that candidates can demonstrate and apply proficiencies related to diversity. Experiences provided for candidates include working with diverse populations, including higher education and P-12 school faculty, candidates, and students in P-12 schools.

**Standard 5:** *Faculty Qualifications, Performance, and Development*

Faculty are qualified and model best professional practices in scholarship, service, and teaching, including the assessment of their own effectiveness as related to candidate performance.

They also collaborate with colleagues in the disciplines and schools. The unit systematically evaluates faculty performance and facilitates professional development.

**Standard 6:** *Unit Governance and Resources*

The unit has the leadership, authority, budget, personnel, facilities, and resources, including information technology resources, for the preparation of candidates to meet professional, state, and institutional standards.

\* Adapted from NCATE. For more information, go to NCATE web page <http://www.ncate.org/public/unitStandardsRubrics.asp?ch=4>

## **Transitional License Teacher Education Program: Appendix C**

### **Professional Education Core Competencies\***

Transitional licensure programs may include a variety of program delivery methods including traditional for-credit courses, web-based courses, non-credit seminars/workshops, and/or other methods so long as transitional licensed teachers demonstrate progress in the acquisition of the eleven professional education core competencies, A-K, listed below. Transitional licensure programs must be designed to address the competencies in a clearly defined orientation component (A-D) and a professional development component (E-K). Transitional licensed teachers must have successfully completed the orientation component before first renewal of the transitional license.

#### **Orientation Component (A through D). The teacher will:**

- A. Know, understand, and use the central concepts, tools of inquiry and structures of the discipline(s) they teach and can create learning experiences that develop student competence in the subject matter.**

#### **Outcomes**

1. Teachers demonstrate a broad general understanding of the major concepts of the discipline they teach.
2. Teachers create interdisciplinary learning experiences that allow students to integrate knowledge, skills, and methods of inquiry from several related subject areas.
3. Teachers create opportunities for students with disabilities and those with varied cultural, linguistic, and ethnic backgrounds to participate in the general curriculum.

- B. Understand and use a variety of instructional strategies to encourage development of critical thinking, problem solving and performance skills in students.**

#### **Outcomes**

1. Teachers use multiple teaching and learning strategies in active learning opportunities to promote the development of critical thinking, problem solving and performance capabilities in the content areas.
2. Teachers use reading comprehension and writing strategies in the content area and assist students in applying mathematics concepts to subject content.

3. Teachers use a wide variety of resources and methods to promote student learning.

**C. Use an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning and self-motivation.**

**Outcomes**

1. Teachers create a learning environment that is inclusive and supports positive social interaction, active engagement in learning, and self-motivation for all students.
2. Teachers organize and manage resources such as time, space, facilities, technology, activities, instructional assistants, and volunteers to engage all students in productive tasks and maximize the amount of class time spent in learning.
3. Teachers create a positive, inclusive classroom of mutual respect and support, and inquiry.

**D. Plan instruction based upon knowledge of subject matter, students, the community, and curriculum goal.**

**Outcomes**

1. Teachers identify long-range instructional goals, sequence short-range instructional objectives, and develop units and daily lessons that target these goals and objectives.
2. Teachers align goals, objectives, units and daily lessons with Tennessee curriculum standards, national standards and student performance indicators.

**Professional Development Component (E through K). The teacher will:**

**E. Understand how students learn and develop and provide learning opportunities that support student intellectual, social and personal development.**

**Outcomes**

1. Teachers understand how learning occurs—how all students construct knowledge and acquire skills—and are able to provide learning opportunities that support their intellectual, social and personal development.

2. When making instructional decisions, teachers draw upon an in-depth knowledge of developmental progression in student physical, social, emotional, moral, and cognitive domains and recognize that students with disabilities may exhibit greater individual variation and that a disability often influences development and functioning in more than one area.
3. Teachers use this knowledge to optimize learning opportunities for each student.

**F. Understand how students differ in their approaches to learning and create instructional opportunities that are adapted to diverse learners.**

**Outcomes**

1. Teachers understand and identify differences in student approaches to learning and performance.
2. Teachers design instruction and adapt instructional techniques for all students within the broader context of their families, cultural backgrounds, socioeconomic classes, languages, communities, peer/social groups and exceptional learning needs.
3. Teachers create a learning community which is inclusive and in which individual differences are respected.

**G. Use knowledge of effective verbal, nonverbal and media communication techniques to foster active inquiry, collaboration and supportive interaction in the classroom.**

**Outcomes**

1. Teachers understand language development, the role of language in learning, and how culture, gender, and exceptional learning needs affect communication in the classroom.
2. Teachers recognize effective verbal and nonverbal communication techniques and use them to support **all** students learning.

**H. Know, understand and use formal and informal assessment strategies to evaluate and ensure the continuing intellectual, social and physical development of the learner.**

## Outcomes

1. Teachers understand the characteristics, uses, advantages and limitations of different types of assessments for evaluating student learning.
  2. Teachers understand state and federal accountability requirements.
  3. Teachers select, construct and use formal and informal assessment strategies and instruments appropriate to the learning expectations being evaluated to make instructional decisions based on student performance information.
  4. Teachers develop and maintain useful records of student work and communicate progress to students, parents and other colleagues.
  5. Teachers collaborate with special education teachers and others to plan and design accommodations, modifications, adaptations or alternate assessments, based on the results of individual assessments.
- I. Continually evaluate the effects of their choices and actions on others (students, parents and other professionals in the learning community) and who actively seek out opportunities to grow professionally.**

## Outcomes

1. Teachers reflect on their teaching practices by continually evaluating the effect their instruction has on all students.
  2. Teachers monitor teaching strategies and behavior in relation to student success and use the information to modify and revise instruction.
  3. Teachers continually examine their teaching performance within the context of state and local standards and federal and state accountability requirements.
  4. Teachers read professional literature, participate in professional organizations, and use other resources to support their continuing professional development.
  5. Teachers know their legal and ethical responsibilities and use knowledge of educational policy, organizational, historical, and professional dimensions of classrooms and schools to guide their professional behavior.
- J. Foster relationships with school colleagues, parents and agencies in the larger community to support students' learning and well-being.**

### **Outcomes**

1. Teachers consult with families and teachers, and collaborate with other professionals within the school and within community agencies to foster student learning.
  2. Teachers participate in collegial activities designed to make the entire school a productive learning community.
  3. Teachers act as advocates for all students, advise them, recognize student problems, and seek additional help as needed and appropriate.
  4. Teachers understand schools as organizations within the larger community and effectively communicate school goals and accomplishments to the community and general public.
- K. Use technology and technology based resources to facilitate developmentally appropriate student learning, to enhance their professional growth and productivity, and effectively use and manage all technology available to them and explore uses of emerging resources, promoting the equitable, ethical and legal use of technology resources.**

### **Outcomes**

1. Teachers use technology and technology based resources to facilitate developmentally appropriate student learning.
2. Teachers use technology to enhance their professional growth and productivity.
3. Teachers effectively use and manage all technology available to them and explore uses of emerging resources.
4. Teachers promote the equitable, ethical and legal use of technology resources.

\*Adapted from the Tennessee Professional Education Standards. For more information, go to TN DOE web page  
<http://www.tennessee.gov/education/lic/doc/accttchlicstds.pdf>

**Transitional License Teacher Education Program: Appendix: D**

**Test Requirements for Second Renewal of the Transitional License<sup>1</sup>**

Endorsement Code/Title	Test Code/Title: Test(s) that Must be <b>PASSED</b> for Second Renewal of Transitional License	Passing Score
448/Agriculture Education (7-12)	0700/Agriculture	530
427/Art (Visual Arts K-12)	0133/Art:Content Knowledge <b>Choice of:</b> 0132/Art: Content Traditions, Criticism & Aesthetics <b>OR</b> 0131/Art Making	150
		140
		155
415/Biology (7-12)	0235/Biology: Content Knowledge <b>Choice of:</b> 0233/Biology: Cont. Essays <b>OR</b> 0433/General Science: Content Essays	148
		146
		130
474/Business Education (7-12)	0100/Business Education	570
416/Chemistry (7-12)	0245/Chemistry: Content Knowledge	152
	0431/General Science: Cont. Know., Part 1	145
467/Early Childhood Education (PreK-3)	0014/Elementary Education: Content Knowledge	140
	0201/Reading Across Curriculum: Elementary	151
468/ Early Development & Learning (PreK-K)	0021/Education of Young Children	155
	0014/Elementary Education: Content Knowledge	140
418/Earth Science (7-12)	0571/Earth and Space Science: Content Knowledge	146
	0431/Gen. Science: Cont. Know., Part 1	145
424/Economics (7-12)	0910/Economics	530
499/Elementary (K-6)	0201/Reading Across Curriculum: Elementary	151
	0014/Elementary Educ.: Content Knowledge	140
407/English (7-12)	0041/English Lang., Lit., Comp.: Content Knowledge	157
490/English as a 2 <sup>nd</sup> Language (PreK-12)	0360/English to Speakers of Other Languages	530

Endorsement Code/Title	Test Code/Title: Test(s) that Must be <b>PASSED</b> for Second Renewal of Transitional License	Passing Score
450/Family & Consumer Sciences (5-12)	0121/Family & Consumer Sciences	157
411/French (7-12)	0173/French: Content Knowledge	160
491/French (PreK-12)	0171/French: Productive Language Skills	165
422/Geography (7-12)	0920/Geography	580
412/German (7-12)	0181/German: Content Knowledge	149
492/German (PreK-12)		
423/Government (7-12)	0930/Government/Political Science	600
419/Health & Wellness (K-12)	0550/Health Education	570
421/History (7-12)	0941/World and U.S. History: Content Knowledge	136
410/Latin (7-12)		
493/Latin (PreK-12)	0600/Latin	540
473/Library Information Specialist (PreK-12)	0311/Library Media Specialist	600
472/Marketing (7-12)	0561/Marketing Education	160
413/Mathematics (7-12)	0061/Mathematics: Content Knowledge	136
440/Middle Grades (4-8)	0146/Middle School: Content Knowledge	150
	0201/Reading Across Curriculum: Elementary	151
428/ Vocal/General Music (K-12)	0113/Music: Content Knowledge	150
429/ Instrumental/ General Music (K-12)		
420/Physical Education (K-12)	0091/Physical Education: Content Knowledge	152
417/Physics (7-12)	0265/Physics: Content Knowledge	144
	<b>Choice of:</b> 0262/Physics: Content Essays	135
	<b>OR</b> 0433/General Science: Content Essays	130
426/Psychology (9-12)	0390/Psychology	560
487/School Counselor (PreK-12)	0420/School Guidance and Counseling <sup>2</sup>	580
425/Sociology (9-12)	0950/Sociology	540

Endorsement Code/Title	Test Code/Title: Test(s) that Must be <b>PASSED</b> for Second Renewal of Transitional License	Passing Score
409/Spanish (7-12) 495/Spanish (PreK-12)	0191/Spanish: Content Knowledge 0192/Spanish: Productive Language Skills	152 154
461/SPED-Comprehensive (K-12)	0353/Education of Exceptional Student: Core Content Knowledge 0201/Reading Across Curriculum: Elementary	144 151
459/SPED-ECE (PreK-3)	0353 Education of Exceptional Student: Core Content Knowledge 0201/Reading Across Curriculum: Elementary	144 151
463/SPED-Hearing (PreK-12)	0353/Education of Exceptional Student: Core Content Knowledge 0201/Reading Across Curriculum: Elementary	144 151
460/SPED-Modified (K-12)	0353/Education of Exceptional Student: Core Content Knowledge 0201/Reading Across Curriculum: Elementary	144 151
462/SPED-Vision (PreK-12)	0353/Education of Exceptional Student: Core Content Knowledge 0201/Reading Across Curriculum: Elementary	144 151
408/Speech Communications (7-12)	0221/Speech Communications	570
477/Technology Education (5-12)	0050/Technology Education	580
405/Theatre (K-12)	0640/Theatre	610

- 1 Test requirements and passing scores are subject to change.**
- 2 For School Counselors, test requirements for renewal are not applicable (N/A). Renewal requirements are included in the Program Implementation Standards associated with the School Counselor Licensure Standards.**

Tennessee State Board of Education  
November 6, 2009

Agenda  
Final Reading Item: IV. K.

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### Tennessee Learning Centered Leadership Policy

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#### **The Background:**

Tennessee's Learning Centered Leadership Policy, initially approved in November of 2008, is recognized by many school leadership experts as among the finest school leadership standards in the nation. It has provided the guidance for the reengineering of the leadership programs in university programs across the state. However, the policy is silent regarding the approval of leadership training programs that are not necessarily institutions of higher education. The proposed revisions address this issue.

The proposed revisions allow entities which are not necessarily IHE's to apply for and receive approval to recommend candidates to the state for initial leadership licensure. These programs must meet the same standards as the newly approved university-based programs. The programs must also meet strict eligibility standards which substantively mirror the standards approved for non-IHE teacher education providers (see section I.e. of the policy).

Whether university-based or not, all approved programs will strive toward similar outcomes that include alignment of selection, preparation, licensure, evaluation and professional development; formalized collaboration and responsibilities between LEAs and approved programs; and more rigorous program admissions standards. Likewise, preparation curriculum will be grounded in current best practice; program completion requirement will be clearly and uniformly defined; and professional development will support an instructional leader's goals to improve student learning.

#### **The Master Plan Connection:**

This item supports the State Board's *Master Plan* by providing multiple routes for the development of effective school leaders. A comprehensive system of instructional leadership training, development, licensure and evaluation is essential to improve student learning. The proposed policy and rules move the learning centered leadership redesign from planning to implementation.

#### **The Recommendation:**

The Education Leadership Redesign Commission requests the proposed policy be adopted on final reading. The SBE staff concurs with this recommendation.

# **Tennessee Learning Centered Leadership Policy**



**November 6, 2009**

**State Board of Education  
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<b>TENNESSEE STATE BOARD OF EDUCATION</b>	
<b>LEARNING CENTERED LEADERSHIP POLICY</b>	<b>5.101</b>

The Tennessee Learning Centered Leadership Policy replaces in entirety

- 1) Policy 5.101 *Principal' in Tennessee Schools* July 1994
- 2) Policy 5.102 *Supervisor in Tennessee Schools*
- 3) *Administrator/Supervisor PreK-12 9* (Graduate level) *Licensure Standards* (including guidelines and program implementation standards)

The Tennessee Learning Centered Leadership Policy requires program approval and monitoring procedures in addition to those in the *Approval of Teacher Education Programs and Professional Education Units in Tennessee* .

**Tennessee Learning Centered Leadership Policy**

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## **The Challenge**

All states and school districts want successful schools that turn out graduates who are well-prepared to continue their education and succeed in chosen careers. Achieving this goal is much enhanced by putting at the head of every school a principal who knows how to lead the changes in curriculum and instruction that will result in higher levels of learning for all groups of students. Decades of research have revealed strong links between what principals do and how students perform.

In 2005 Southern Regional Education Board (SREB) received a significant grant from the U.S. Department of Education to work with two Tennessee universities to reinvent the principal preparation process. Further, SREB requested that the SBE and THEC jointly appoint a commission to oversee the development and implementation of a new system of instructional leadership development. The proposed learning-centered instructional leadership system policy requires the research based changes needed to guarantee that every public school has an effective instructional leader.

October 2005 a Leadership Redesign Commission was appointed jointly by the State Board of Education and THEC (See Appendix A). The commission was challenged to develop a comprehensive plan to redesign to the current instructional leadership development system. The redesign components studied included how instructional leaders are currently selected, prepared, licensed, evaluated and provided professional support. The Commission developed 14 recommendations (See Appendix B) for improving the current system and developed a plan to implement those recommendations. This policy is a result of those recommendations.

## **Summary**

The Policy for the Tennessee Learning Centered Leadership System replaces in its entirety:

1. Policy 5.101 *Principal's in Tennessee Schools* July 1994
2. Policy 5.102 *Supervisor in Tennessee Schools*
3. *Administrator/ Supervisor PreK-12 9* (Graduate level) *Licensure Standards* (including guidelines and program implementation standards)

The Policy for the Tennessee Learning Centered Leadership System requires program approval and monitoring procedures in addition to those in the *Approval of Teacher Education Programs and Professional Education Units in Tennessee* for instructional leadership licensure programs. This new policy includes the following changes to the current instructional leadership development system:

**New Standards:** Tennessee Instructional Leadership Standards (TILS) will be used to align selection, preparation, licensure, evaluation and professional development.

**Collaboration:** Partnerships between LEAs, and approved programs will be formalized and in writing.

**Preparation Program Admission:** Jointly developed admissions standards will be more rigorous and selective.

**Preparation Curriculum:** The TILS will form the foundation of a curriculum grounded in current practice, learning centered and competency based.

**Program Completion:** Instructional leader program graduates will meet clearly defined standards.

**Licensure:** A competency based four tiered licensure system requires continuous skills development:

- Instructional Leadership License - Aspiring (ILL-A) optional
- Instructional Leadership License - Beginning (ILL-B)
- Instructional Leadership License - Professional (ILL-P)
- Instructional Leadership License - Exemplary (ILL-E) optional

**Evaluation:** Performance contracts and evaluations will be based on performance goals and TILS competency development. The TILS Rubric, TILS Appraisal Instrument, TILS e-Log, and TILS Professional Growth Plan are provided as tools for Directors of Schools.

**Professional Development:** Options and resources will be available to support an instructional leader's goal, improving student learning.

## **I. Preparation**

### **a. Partnership Agreement**

Ensuring that all schools have effective leadership begins with the principal selection and preparation process (Darling-Hammond, LaPointe, Meyerson, & Orr, 2007). Tennessee educational leaders are currently selected and prepared primarily at the university level. The process must be a dynamic collaborative effort between programs and the local education agencies (LEAs) they serve. It is critical that universities and LEAs work together to identify and secure candidates for instructional leadership based upon local needs identified using student achievement data and emerging research about the dispositions and characteristics of exemplary school leaders (Darling-Hammond et al., 2007; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Marzano, Waters, & McNulty, 2005; Bottoms, O'Neill, 2001). To ensure collaboration, LEA-program partnerships must be formalized and contain the following:

#### **Required:**

- The partnership agreement must be written and signed by both LEA and program administrators.
- The partnership agreement will define how the partners will:
  1. create a shared vision and program design;
  2. meet the leadership needs of the LEA;
  3. support selected candidates; and
  4. provide high-quality field experiences.
- The partnership agreement implementation must be an identified priority in both organizations, as reflected in their mission, structures, regular practices and budgets.
- The partnership agreement will describe how leadership preparation programs and LEA partners will jointly establish and implement criteria and processes for screening and selecting promising candidates who demonstrate:
  1. expertise in curriculum and instruction,
  2. expertise in leadership, and
  3. have a track record of improving student achievement.
- The partnership agreement will describe how screening criteria and selection processes will be continually monitored, evaluated and improved.

- The partnership agreement will describe the membership, responsibilities and communication plans of the preparation program design teams and the partnership advisory councils.
- The partnership agreement will describe how the specific leadership requirements of the LEA will be addressed.
- The partnership agreement will identify a pool of resources available to provide candidates the support and conditions necessary to succeed in the leadership program. Resources may include but are not limited to: release time for course work and field experiences, tuition assistance, mentor stipends, learning materials and extra coaching as needed to master essential competencies (Fry, O'Neill, & Bottoms, 2006).

## **b. Candidate Selection**

### **Process**

Identifying and selecting high performers for leadership training is a daunting task. Candidate selection must be rigorous. Recruitment and selection of program candidates should help address targeted district hiring needs related to candidate experience, demographics, and projected leadership openings. LEAs and their preparation program partners must describe and implement a selection process that includes:

#### **Required:**

- How a set of criteria that conveys a clear description of the characteristics of applicants will be collaboratively developed.
- How the components of the selection process will be determined:
  1. application procedures and timelines;
  2. screening and evaluation procedures, including interview protocols, 360-degree evaluations, performance portfolios or other documentation formats, in-basket exercises, writing samples, scoring rubrics, etc.; and
  3. the district's and participants' obligations to each other.
- How information about selection criteria, application process, evaluation components, district/participant obligations, and required forms will be prepared and disseminated to all teachers and professional staff in the school districts, as well as any other groups of professionals who may be considered for the pool.
- How screening and evaluation committees members from leadership programs, LEAs, and exemplary practitioners will be selected.

# TENNESSEE STATE BOARD OF EDUCATION

## TN LEARNING CENTERED LEADERSHIP SYSTEM | 5.101

- How consistent, ethical and fair selection practices will be established and monitored.
- How agreed-upon reliable procedures for analyzing candidate data from multiple measures will be assessed.

### **Recommended:**

- Conduct informational meetings with school faculties and other groups of potential applicants.
- Publish information about the selection of the leadership pool in the LEA's communication media, and keep all employees informed.

### **Criteria**

Approved instructional leadership preparation programs will require that all candidate applicants hold a current teacher\* license, have a minimum of three (3) years of successful education working experience, and submit a confidential application portfolio that contains the following:

### **Required:**

- Copy of the most recent performance appraisal,
- Current professional development plan,
- Evidence of ability to improve student achievement along with demonstrated leadership in coaching other teachers to raise student achievement, \*
- Evidence of knowledge about curriculum, instruction and assessment, \*
- A personal statement of career goals and how the preparation program would assist the candidate in reaching stated goals,
- Recommendations as specified in partnership agreement,
- Evidence that describes qualities of collaboration, cooperation and relationship building,
- Demonstration of effective oral and written communications skills, and
- Successful completion of an interview conducted by a program admission committee that includes both P-12 instructional leaders and program faculty that can determine if the candidate has:
  1. Implemented innovative learning strategies in their classrooms;

2. Shown good communications, human relations, and organizational skills;
3. Used student data and work samples to make instructional decisions; and
4. Demonstrated high ethical standards.

**Recommended:**

- Challenged students through rigorous, standards-based teaching.
- Integrated technology into daily teaching.
- Worked collaboratively on teaching/learning issues with teaching teams.
- Analyzed research and applied it to practice.
- Demonstrated leadership in the larger community.
- Demonstrated the ability to articulate and implement a vision.
- Shown commitment to continuous improvement.
- Shown evidence of leadership and management potential, including evidence of most recent accomplishments in the area of instructional leadership. \*
- Provided for joint screening by program and school system leaders with assessment tools.
- Conducted observations and videos of classroom and peer teaching.

\* *The evidence and documentation shall be developed collaboratively between districts and approved leadership programs.*

**c. Preparation Curriculum**

**Critical success factors** associated with instructional leaders who have succeeded in raising student achievement in schools have been identified. These factors, organized under three overarching competencies, should be the minimum driving force for leadership program redesign (Bottoms & O'Neill, 2001).

*The Tennessee Instructional Leadership Standards (TILS)* align with these critical success factors.

**Competency I:** Effective principals have a comprehensive understanding of school and classroom practices that contribute to student achievement through focusing on student achievement; developing a culture of high expectations; and designing a standards-based instructional system.

**Competency II:** Effective principals have the ability to work with teachers and others to design and implement continuous student improvement through creating a caring environment; implementing data-based improvement; communicating; and involving parents.

**Competency III:** Effective principals have the ability to provide the necessary support for staff to implement data-driven school, curriculum, and instructional practices through initiating and managing change; understanding the change process and using leadership and facilitation skills to manage it effectively; providing effective professional development; using time and resources in innovative ways to meet the goals and objectives of school improvement; maximizing resources; acquiring and using resources wisely; building external support; and staying current with effective practices.

Leadership preparation program must develop a comprehensive and coherent standards based curriculum that is aligned with the TILS, NCATE/ECCL, ISSLC, (see Appendix A) and state accountability and evaluation requirements.

Curriculum and program philosophy must emphasize leadership of instruction and leading school improvement. Curriculum instruction must integrate theory and practice and stimulate reflection. Instructional strategies include but are not limited to problem-based learning, action research, field-based projects, journal writing, and portfolios that feature substantial use of feedback and assessment by peers, faculty, and the candidates themselves. LEA personnel must be included in the delivery of instruction to candidates.

Candidates must provide evidence of meeting competencies (a portfolio) at the mid-instructional leadership licensure - beginning (ILL-B) level, complete a practicum project, develop a professional growth plan, and pass the SLLA to earn an advanced degree and/or a license as an instructional leader.

#### **d. Practicum (Field based experiences)**

Developing the competencies of an effective instructional leader requires more than reading books, engaging in academic discourse, and analyzing key concepts and skills of educational leadership. Becoming a competent leader also requires observing and analyzing a variety of good models of practice and then learning from one's own trial and error in the workplace. Prior to licensure, it is crucial that candidates demonstrate mastery of essential competencies under the watchful eyes of practitioners who know and use effective practices.

Quality field-based experiences must provide opportunities for students to translate professional standards into leadership skills to solve a range of school problems. This could be accomplished through observing, participating in and then leading teams of teachers in identifying needs, implementing interventions, and evaluating results that focus on improving teaching and learning (Fry, Bottoms, & O'Neill, 2005). In response to this research, it is required that Tennessee preparation program for instructional leadership candidates be redesigned to include the following:

**Required:**

- Field experiences integrated throughout the entire program and activities aligned with standards and course curricula to provide just-in-time application and learning.
- Mentoring relationships, collaboratively formed, based upon the selection criteria research for identifying exemplary mentors. Candidates' mentors may change during the program based upon the candidates' needs.
- Performance evaluations, conducted during all field experiences.
- Practicum seminars for candidates, conducted throughout the program.
- School-based activities that provide opportunities to apply the knowledge, skills and thought processes of a school leader, as identified in state standards and research on school leadership and incorporated in the preparation program's design.
- Learning experiences designed along a developmental continuum that progresses from observing (shadowing and other forms of observation) to participating in (being a part of a team, etc.) to leading school-based activities (being in charge of a committee) related to the core responsibilities of school leaders.
- Opportunities to work with diverse students, teachers, parents and communities.
- Handbooks or other guiding materials that clearly define the expectations, processes and schedule of the practicum to participants, program supervisors, mentors and district personnel.
- Ongoing supervision by program faculty who have the expertise and time to provide frequent formative feedback on candidates' performance.

- Mentors who share the program's articulated vision of effective leadership, model the key leadership behaviors and practices aligned with the vision, know how to provide the required activities and guide candidates through them, and shape accountability for bringing candidates' performances to TILS.
- Rigorous formative and summative standards-based evaluations of a candidate's performance of core school leader responsibilities, using valid, reliable and standardized instruments and procedures.
- Candidate defense of a practicum project, based on action research of a real-world school problem to a panel (faculty and LEA representatives and experts external to LEA and program) (Fry et al., 2005).

To earn an advanced degree in instructional leadership or to complete a leadership program leading to licensure a candidate must:

- Develop an Evidence Portfolio documenting the competencies necessary to satisfactorily perform at the mid ILL-B level.
- Develop a PD Plan.
- Complete a practicum project that demonstrates the ability to improve student learning and present the results to an evaluation panel.
- Pass the SLLA.

### **e. Program Approval**

#### **Eligibility**

An institution/organization which is accredited, without probation or an equivalent status, by the appropriate institutional/organizational accrediting agency recognized by the U.S. Department of Education is eligible to make application to the State Department of Education for a leadership program. The institution/organization should submit a current accreditation letter and/or report that indicates institutional/organizational accreditation status.

Organizations that are not institutions of higher education, but are eligible for accreditation must submit a clean audit, a business plan, and the answers to the following questions:

1. What security measures are taken to ensure the security and integrity of student records?

2. What documentation demonstrates that facilities are safe, secure, and healthy?
3. What policies ensure the availability of information about governing board members, faculty, and administrators?
4. What policies relate to requirements for degrees, certificates, and graduation; fees and other financial obligations of students; conflicts of interest; and non-discrimination and sexual harassment?
5. What are the personnel qualifications and staffing ratios for support services?
6. What are the policies related to faculty tenure, grievance, and discipline?
7. What are the policies related to academic and intellectual freedoms?

Additionally, organizations that are not higher education institutions must also submit:

1. Clean independent audits of a full set of financial statements of the legal entity offering programs for the three years prior to submission of a program proposal which provide evidence regarding compliance with these preconditions. The audits should meet the standards of the American Institute of Certified Public Accountants or other appropriate accounting standards generally accepted in the U.S.
2. The legal entity's 990 Form (non-profit organizations) or corporate income tax returns (for-profit organizations) for the past year.
3. A business plan that focuses on the unit being accredited. The business plan should include:
  - a. A business model that briefly describes the services to be delivered, the area to be served, the current and projected number of candidates, recruitment activities, a description of faculty, tuition costs, a budget narrative, etc.;
  - b. The most current approved unit budget;
  - c. Revenue and expense projections for the next two years, including funding streams, the length and percentage of funding from foundation grants, appropriated governmental funds, tuition, funds

from elsewhere in the legal entity or its affiliates; costs of facility, payroll, maintenance, etc.;

- d. A one to two page narrative describing unit revenue and expenditure projections for the next 4 years;
  - e. A one to two page narrative describing the relationship between the unit and the legal entity offering the educator preparation programs; and
  - f. If tuition based, the tuition refund policy should the transitional licensure preparation programs be discontinued by the unit.
5. An annual, public report to the State Board of Education and the State Department of Education that should include:
- a. Data regarding the placement of matriculated candidates, student achievement results, principal evaluation results, and retention metrics;
  - b. An plan of program analysis and improvement based on these data;
  - c. A plan for sharing the results of the analysis and subsequent improvements with both university-based and alternative leadership preparations across the state.

To ensure a level of quality across instructional leadership programs, all instructional leadership programs must be approved by a team using a process approved by the State Board of Education. The evaluation process calls for the visiting team to include in-state evaluators and expert outside evaluators.

### **Process**

At least six months but no longer than 18 months after the graduation of the first leadership cohort approved programs will receive an onsite visit by an evaluation team. The program evaluators will include current exemplary instructional leaders, a state instructional leadership program director and at least two external experts in instructional leadership redesign.

The evaluators will assess support documents, and conduct a pre-visit to provide guidance, identify barriers to progress, provide support and identify promising practices.

Program evaluation teams have the responsibility to guide program development, approve and regularly monitor leadership programs. Teams have the authority to withhold or withdraw licensure privileges.

Prior to a program approval visit, evaluators will be provided copies of the support documents to study in advance. In addition, they will be provided copies of the guidelines, state expectations for programs, Tennessee Standards for Instructional Leaders, state certification structure, and other documents used by the programs.

Program evaluation teams will review proposals based upon the state expectations and jointly identify questions to ask during the interviews. Staff from the Tennessee Department of Education will examine all redesigned program paperwork to determine if they meet new requirements regarding program admission and completion. The Department staff will indicate if all instructional leader certification requirements are met. If certification requirements are not met, areas that need to be addressed for program approval will be identified for the team.

The evaluation team will conduct face-to-face interviews with key program administrators, faculty, and school/district partners during a site visit. Although the Tennessee Standards for Instructional Leaders will be the basis for approval, the team may make suggestions for further program improvement. Based upon information generated by the evaluators, written program reviews will be developed that provide specific feedback from the evaluators about each program. The Program Reviews will contain feedback from the evaluators in the following three areas:

1. Program Recommendations – Standards-based recommendations that must be met for program approval
2. Program Suggestions – Suggestions that team might offer. These are not binding.
3. Commendations

The final approval process will ensure that programs have addressed the stipulations of the review team and that high quality programs exist across the state. All programs recommended for approval without stipulations and found to have met program admission and completion requirements will be recommended for approval to the State Board of Education.

All programs that are not recommended for approval will be required to state whether they will or will not continue to pursue program approval. If they decided to pursue program approval, they will be required to have their redesign team continue to meet and make major changes to the instructional leadership proposal as recommended by the review team. Programs will not be

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allowed to submit the new proposal until the next evaluation cycle during the following spring or fall and will be required to undergo the full evaluation with the visiting team.

If programs are required to meet stipulations or are found to have certification problems, programs will be required to address the areas cited and submit a response to the State Department of Education. The State Department of Education will review the response and determined if it fully addresses the stipulations. If the response appears to meet expectations, a program review committee will visit the campus to ensure that the program addresses certification requirements and evaluation stipulations. If the program has addressed the stipulations required by the initial visiting team, its programs will be recommended for approval. If the program fails to address the evaluators' stipulations, the program administrator will be notified that no students may be admitted to the instructional leadership program. The programs may continue to work toward approval, request for technical assistance from the State Department of Education and reapply for approval in the next approval cycle.

## **II. Licensure**

The current, 2008, two-tiered licensure system for school administrators [Beginning Administrator License (BAL) and Professional Administrator License (PAL)] will change to a four-tiered licensure system for instructional leaders. Beginning September 15, 2009, the following Instructional Leader Licenses (ILLs) will be in effect:

Instructional Leadership License - Aspiring (ILL-A) optional

- Described by the partnership agreement
- Leadership preparation program recommendation

Instructional Leadership License - Beginning (ILL-B)

- 5 year license
- Leadership preparation program recommendation

Instructional Leadership License - Professional (ILL-P)

- 5 year renewal cycle
- LEA recommendation

Instructional Leadership License - Exemplary (ILL-E) optional

- 8 year renewal cycle
- LEA and SDE panel recommendation

### **Licensure Transition Plan**

Individuals currently holding a BAL may complete current licensure requirements for earning a PAL.

Beginning July 1, 2022, principals in Tennessee must hold an ILL-B, an ILL-P, or an ILL-E license. However, after September 15, 2009, individuals with a PAL may elect to transition to an ILL-P or ILL-E any time they meet the licensure requirements.

Individuals with a current Tennessee administrator license issued before the SLLA was required will not be required to take the SLLA to transition to the new licensure system.

Prior to September 2009 a first time administrator licensure candidate must pass the SLLA and apply for a license under pre-2009 license requirements. After September 15, 2009, first time administrator licensure candidate must meet the new licensure requirements. The only exceptions will be for candidates enrolled and active in a leadership/supervisor program prior to September 2009. Prior to November 1, 2009 these continuing candidates must have their names submitted by the dean of the preparation program to the State Department of Education. Anyone enrolled and active in an

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administrator/supervisor program whose name was sent to the SDE prior to November 1, 2009, must complete the program by September 1, 2011, to earn a license or advanced leadership degree under the current system. After September 1, 2011, all graduates must meet the standard of the Learning Centered Leadership Policy.

### **III. Professional Development**

Effective learning-centered instructional leaders must be committed to lifelong, self-directed learning. They must have a deep understanding of how students learn and to what level they can learn. They must understand how adults learn and how to create a professional learning environment where all adults are constantly improving their own knowledge and skills. He or she must put curriculum and instruction first. A learning-centered leader understands what students should be learning and how 21<sup>st</sup> century students learn best. Learning-centered instructional leaders require access to top notch professional development (PD) experiences.

#### **Characteristics of High Quality Professional Development**

Professional development is more than an in-service training or workshop. A professional development system must include a variety of formats that are well conceived, current and relevant professional learning opportunities. All PD experiences must be developed, delivered and lead to measurable, standards based outcomes. Offerings should be evaluated for effectiveness and revised often to ensure the learning remains relevant to the responsibilities of today's instructional leaders.

Professional development experiences will be aligned with TILS indicators appropriate to the level of licensure. Professional development information will provide clear learning goals so instructional leaders are able to make thoughtful selections that will align with their personal professional growth plans, performance contract goals, school improvement planning goals and/or their performance evaluation. Developing an individual instructional leader's professional growth plans requires careful analysis of school data, evaluation feedback and licensure requirements.

Currently instructional leaders must engage in state approved professional development to satisfy the professional growth requirement stipulated in evaluation. Evidence of meeting the standards is required to maintain or to progress to another licensure tier. Demonstrations of competency and evidence of meeting a more advanced level of TILS indicator(s) is required for instructional leaders to advance through the ILL-B, to ILL-P, the if they choose the ILL-E.

Professional development must be designed to meet the following criteria:

- link to the Tennessee Instructional Leadership Standards and indicators of progress;
- increase a principal's and school leadership team's capacity to improve teaching and learning ;
- incorporate the use of 21<sup>st</sup> century skills;

- ensure that support and training is high quality and research-based;
- monitor and evaluate leaders' and/or leadership teams' progress in using new skills and new knowledge;
- encourage interactions between exemplars or mentors and participants.

The purpose of professional development is to assist instructional leaders and leadership teams to determine the current state of teaching and learning in their schools and to improve their knowledge, skills and performance to move the school to the next level of learning.

**High Quality Instructional Leader Professional Development Guidelines:**

*Professional development must be standards-based.*

The Tennessee Instructional Leadership Standards (TILS) are the basis for all professional development experiences for school leaders. The standards-based professional development must be rigorous and engaging so that each school leader who successfully completes the curriculum will acquire the knowledge, skills, and dispositions to meet or exceed expectations of the standards.

*Professional development must be results-driven.*

Professional development must actively engage school leaders in their required work and be directly tied to their performance contracts and/or evaluation requirements. The results of the leaders' implementation of new learning should be evidenced through representative samples of their work and be directly related to the Tennessee Instructional Leadership Standards. Examples might include the results of analysis of student data, samples from their teacher evaluation or walk-through processes, and demonstration of activities designed toward the induction and mentoring of new teachers. Most notably, results-driven professional development adds individual accountability beyond mandatory attendance at a prescribed number of professional development hours.

*Professional development provides for continuous improvement of the school.*

The purpose of ongoing professional development for school leaders is to increase student academic achievement. This is achieved when school leaders actively engage in professional learning, developing strategies for promoting continuous progress on high priority school improvement goals.

*Professional development links research and practice and must be embedded in the day-to-day work.*

Professional learning must incorporate the research on effective schools and classrooms with the practical experiences of successful school leaders. As a result, school leaders will develop the essential knowledge and experience to place students at the center of the school community, where students are engaged in meaningful work. These leaders will develop expertise in providing

the resources necessary for improved student achievement while managing time and other conditions requisite for providing an environment conducive to successful student learning. This type of professional development will help leaders to research the distinguishing characteristics of schools that “close the achievement gap” and will ensure that the application of that action-research is at the center of their discussions, activities, and networking.

*Professional development must address individual needs, occur over time, and provide for collaborative learning.*

Professional development must be organized to meet the needs of adult learners and school leaders as they progress over time—from beginning leaders to professional leaders, and ultimately toward becoming exemplary leaders. Therefore, professional development is a long term process and embodies the value of life-long learning. As a consequence, professional development must represent a range of carefully organized experiences focused on a leader’s current needs, with an understanding that such needs will evolve over time. These professional learning opportunities work best among a cohort of school leaders in order to promote networking and varied perspectives. Additionally, the professional development will emphasize collaboration (face-to-face, electronically, or other technological means) with experienced school leaders (and teacher-leaders) who serve as mentors, coaches, or critical friends.

Each school and school leader has different strengths, needs, opportunities, and barriers. Instructional leaders must become reflective as well as self-directive in aligning their professional learning with their current needs and situation. Professional development requires a careful and flexible design that will best meet the individual leader’s needs.

*Professional development must be data-driven.*

The professional development of instructional leaders must be evaluated on a formative and summative basis. Data must be generated from a variety of sources so that professional development can be focused on the specific needs of the instructional leader and the use of new knowledge and skills that directly impact student learning. Data must also be utilized in the evaluation of program outcomes.

#### **IV. Tennessee Instructional Leadership Standards**

All schools need effective instructional leaders who are well prepared and capable of leading the changes in curriculum and instruction that will result in higher levels of learning for all students. Effective instructional leaders create a school culture of high expectations conducive to the success of all students. Effective instructional leaders ensure that school programs, procedures, and practices focus on the learning and achievement of all students and support the social and emotional development necessary for students to attain academic success.

Consistent with best practice, current research, and sharpened by the wisdom of experienced educators, the Tennessee Instructional Leadership Standards (TILS) identify core performances of effective instructional leaders. The TILS support the continuum of development from aspiring instructional leaders to exemplary instructional leaders committed to continuously improving their practice, contributing to the knowledge base and mentoring new leaders.

##### **Standard A: Continuous Improvement**

**An effective instructional leader implements a systematic, coherent approach to bring about the continuous growth in the academic achievement of all students.**

Indicators:

1. Engages the education stakeholders in developing a school vision, mission and goals that emphasize learning for all students and are consistent with that of the school district.
2. Facilitates the implementation of clear goals, strategies, and timelines to carry out the vision and mission that emphasize learning for all students and keep those goals in the forefront of the school's attention.
3. Creates and sustains an organizational structure that supports school vision, mission, and goals that emphasize learning for all students.
4. Facilitates the development, implementation, evaluation and revision of data informed school-wide improvement plans for the purpose of continuous school improvement.
5. Collaborates with parents/guardians, community agencies and school system leaders in the implementation of continuous improvement.
6. Communicates and operates from a strong belief that all students can achieve academic success.

**Standard B: Culture for Teaching and Learning**

**An effective instructional leader creates a school culture and climate based on high expectations conducive to the success of all students.**

Indicators:

1. Develops and sustains a school culture based on ethics, diversity, equity and collaboration.
2. Advocates, nurtures, and leads a culture conducive to student learning.
3. Develops and sustains a safe, secure and disciplined learning environment.
4. Models and communicates to staff, students, and parents self-discipline and engagement in lifelong learning.
5. Facilitates and sustains a culture that protects and maximizes learning time.
6. Develops a leadership team designed to share responsibilities and ownership to meet student learning goals.
7. Demonstrates an understanding of change processes and the ability to lead the implementation of productive changes in the school.
8. Leads the school community in building relationships that result in a productive learning environment.
9. Encourages and leads challenging, research based changes.
10. Establishes and cultivates strong, supportive family connections.
11. Recognizes and celebrates school accomplishments and addresses failures.
12. Establishes effective lines of communication with teachers, parents, students and stakeholders.
13. Recruits, hires, and retains teachers whose values and instructional frameworks align with the school's mission.

**Standard C: Instructional Leadership and Assessment**

**An effective instructional leader facilitates the use of instructional practices that are based on assessment data and continually improve student learning.**

Indicators:

1. Leads a systematic process of student assessment and program evaluation using qualitative and quantitative data.
2. Leads the professional learning community in analyzing and improving curriculum and instruction.
3. Ensures access to a rigorous curriculum and the supports necessary for all students to meet high expectations.
4. Recognizes literacy and numeracy are essential for learning and ensures they are embedded in all subject areas.
5. Uses research based best practices in the development, design, monitoring and implementation of curriculum, instruction, and assessment.
6. Monitors and evaluates the school's curricular program for rigor.
7. Provides teachers and parents with assessment results on a regular basis.
8. Develops and implements a system to regularly communicate student academic progress and assessment results to parents, students, and teachers.

**Standard D: Professional Growth**

**An effective instructional leader improves student learning and achievement by developing and sustaining high quality professional development.**

Indicators:

1. Systematically supervises and evaluates faculty and staff.
2. Promotes, facilitates and evaluates professional development.
3. Models continuous learning and engages in personal professional development.
4. Provides leadership opportunities for the professional learning community and mentors aspiring leaders.
5. Works in collaboration with the school community to align high quality professional development with the school's improvement plan to impact student learning.

6. Provides faculty and staff with the resources necessary for the successful execution of their jobs.

**Standard E: Management of the School**

**An effective instructional leader facilitates learning and teaching through the effective use of resources.**

Indicators:

1. Establishes a set of standard operating procedures and routines that are understood and followed by all staff.
2. Focuses daily operation on the academic achievement of all students.
3. Garners and employs resources to achieve the school's mission.
4. Prepares and regularly monitors an annual operational budget that aligns with the school's improvement plan.
5. Mobilizes community resources to support the school's mission.
6. Identifies potential problems and is strategic in planning proactive responses.
7. Implements a shared understanding of resource management based upon equity, integrity, fairness, and ethical conduct.
8. Develops a comprehensive strategy for positive community and media relations.

**Standard F: Ethics**

**An effective instructional leader facilitates continuous improvement in student achievement through processes that meet the highest ethical standards and promote advocacy including political action when appropriate.**

Indicators:

1. Performs all professional responsibilities with integrity and fairness.
2. Models and adheres to a professional code of ethics and values.
3. Makes decisions within an ethical context while respecting the dignity of all.

4. Advocates to district and state-level decision-makers when educational, social or political changes are necessary to improve learning for students.
5. Makes decisions that are in the best interests of students and aligned with the vision of the school.
6. Considers legal, moral and ethical implications when making decisions.
7. Acts in accordance with federal and state constitutional provisions, statutory standards and regulatory applications.

**Standard G: Diversity**

**An effective instructional leader responds to and influences the larger personal, political, social, economic, legal and cultural context in the classroom, school, and the local community while addressing diverse student needs to ensure the success of all students.**

Indicators:

1. Develops and implements an appropriate diversity policy involving the school community and stakeholders which encompasses program planning and assessment efforts.
2. Recruits, hires and retains a diverse staff.
3. Interacts effectively with diverse individuals and groups using a variety of interpersonal skills in any given situation.
4. Recognizes and addresses cultural, learning and personal differences as a basis for academic decision making.
5. Leads the faculty in engaging families/parents in the education of their children.

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### V. EVALUATION RUBRICS

#### TENNESSEE INSTRUCTIONAL LEADERSHIP STANDARDS (TILS) EVALUATION RUBRIC

Standard A: Continuous Improvement					
An effective instruction leader implements a systematic, coherent approach to bring about the continuous growth in the academic achievement of all students.					
EXAMPLES OF AUTHENTIC DATA SOURCES/EVIDENCE:	INDICATOR	ASPIRING	BEGINNING	PROFESSIONAL	EXEMPLARY
<ul style="list-style-type: none"> <li>• School Improvement Plan (SIP)</li> <li>• Appropriate stakeholders identified for all sections of the SIP</li> <li>• Analysis of quantitative and qualitative data in the SIP and/or TCSP</li> <li>• Alignment made between the SIP and TCSP</li> <li>• Agenda for meetings (SIP, faculty or team meetings)</li> <li>• Instruments to assess school culture</li> <li>• Communicates the vision and mission of the school to all stakeholders visually and through symbols, ceremonies and stories</li> <li>• Develops action plans that are aligned with the vision and mission of the school</li> <li>• Action plans provide for ongoing student learning and professional development</li> <li>• Artifacts available that demonstrate the consistent focus on goals and data driven decisions (examples: faculty meeting/staff development session agendas, grade level/team agendas/minutes, etc.)</li> <li>• Demonstrates the practice of empowering and engaging the school faculty evidenced in a variety of ways (examples: leadership team work, grade level/team decision making, utilizing faculty "experts" in mentoring and professional development opportunities, etc.)</li> <li>• Analyzes the organizational structure/changes with respect to student learning</li> <li>• Demonstrates the alignment of the vision/mission/goals with the chosen organizational structure</li> <li>• Develops an ongoing formative evaluation of the school improvement plan</li> <li>• Evaluates progress and makes modifications to the plan to insure continuous school improvement</li> <li>• Analyzes both formative and summative data to identify appropriate staff development which is ongoing and embedded in the implementation of the school-wide plan</li> <li>• Identifies a range of appropriate stakeholders and empowers them through participatory decision making in this continuous improvement process</li> <li>• Identifies options for meaningful involvement of parents/guardians, community agencies, and school system leaders in continuous growth of the students</li> <li>• Agendas from actual team or community meetings</li> <li>• Track volunteers or other partnerships</li> <li>• Sign-in sheets from parent/community/partnership meetings</li> <li>• Provides documentation of a variety of types of communications that promote a strong belief that all students can achieve academic success.</li> </ul>	1. Engages the education stakeholders in developing a school vision, mission and goals that emphasize learning for all students and is consistent with that of the school district.	Is able to <b>identify</b> the key stakeholders and <b>articulate</b> ways to engage them in the development of a school vision, mission, and goals that align with the district and support student learning.	Has a <b>sound understanding of the process</b> of developing a school vision, mission and goals that focus on learning for all students and are consistent with the district. Is able to <b>engage the appropriate stakeholders in the process.</b>	<b>Leads the process</b> of developing the school's vision/mission/goals that engages all stakeholders and ensures learning for all students. The outcomes are appropriately <b>aligned with the district plan.</b>	Is a <b>leader at the district/state level</b> in strategic planning and <b>mentors</b> developing school leaders in this school level process.
	2. Facilitates the implementation of clear goals, strategies, and timelines to carry out the vision and mission that emphasize learning for all students and keep those goals in the forefront of the school's attention.	Is able to <b>identify</b> ways to facilitate the implementation of goals/strategies that carry out the vision/mission that emphasizes learning for all students.	Has a <b>sound understanding of the facilitation process</b> required in establishing and implementing goals/strategies that carry out the vision/mission and support learning for all students. Is able to <b>facilitate the development of these goals</b> and strategies and implement them adequately.	<b>Effectively implements</b> goals and strategies that carry out the vision and mission to ensure learning for all students. A <b>consistent focus</b> is placed upon these goals throughout the implementation process, and the <b>goals drive all decisions.</b>	Able to <b>effectively replicate the process</b> of establishing goals/strategies that support the school's vision/mission and ensure all students are successful while <b>mentoring other school leaders.</b>
	3. Creates and sustains an organizational structure that supports school vision, mission, and goals that emphasize learning for all students.	Is <b>gaining knowledge</b> of various organizational structures that support the process of continuous improvement and learning for all students.	Is knowledgeable of various organizational structures that support the process of continuous improvement and <b>is able to create an organizational framework</b> to support the implementation of the vision/mission/goals.	Is able to systematically create and <b>sustain a valuable organizational structure</b> that supports the school's vision/mission/goals and ensure that all students learn. . Routinely <b>assesses how the structure supports the vision/mission/goals and adjusts when needed.</b>	Is able to systematically create and sustain a valuable organizational structure that supports the school's vision/mission/goals and ensure that all students learn. Routinely assesses how the structure supports the vision/mission/goals and adjusts when needed. Is able to <b>coach</b> other leaders through this process.
	4. Facilitates the development, implementation, evaluation and revision of data informed school-wide improvement plans for the purpose of continuous school improvement.	<b>Has an understanding</b> of the school wide improvement planning process for the purpose of continuous school improvement.	Has a strong understanding of the school wide improvement planning process that <b>utilizes data to develop, implement, evaluate, and revise plans</b> for the purpose of continuous improvement. <b>Is able to facilitate the process</b> at the school level using formative data sources/evidence.	<b>Consistently facilitates the cyclical process</b> of developing, implementing, evaluating, and revising school wide improvement planning that is data driven.	Consistently facilitates the cyclical process of developing, implementing, evaluating, and revising school wide improvement planning that is data driven. <b>Is able to assist other school leaders</b> in this continuous school wide improvement process and articulate/demonstrate how to improve upon their practices.
	5. Collaborates with parents/guardians, community agencies and school system leaders in the implementation of continuous improvement.	Is able to <b>identify</b> parent, community, and other groups that can enhance the continuous improvement process at the school level.	Is able to identify parent, community, and other groups that can enhance the continuous improvement process at the school level, and <b>is beginning to establish some relationships</b> within these groups.	<b>Consistently develops collaborations</b> with parent/guardians, community agencies and district leaders that support the process of continuous improvement.	Consistently develops collaborations and partnerships with parent/guardians, community agencies and district leaders that support the cycle of continuous improvement. <b>Is able to assist other school leaders in identifying methods and systems to replicate positive and effective partnerships.</b>
	6. Communicates and operates from a strong belief that all students can achieve academic success.	<b>Espouses the belief</b> that all students can be academically successful.	Espouses the belief that all students can be successful and <b>approaches leadership tasks</b> with this in mind.	<b>All actions and communications</b> with various stakeholder groups are steeped in the belief that all students can academically achieve.	Is able to articulate this belief and act accordingly in a consistent manner. <b>Is an active advocate for this belief at the district level and beyond.</b>

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<b>Standard B: Culture for Teaching and Learning</b> <b>An effective instructional leader creates a school culture and climate based on high expectations conducive to the success of all students.</b>					
EXAMPLES OF AUTHENTIC DATA SOURCES/EVIDENCE:	INDICATOR	ASPIRING	BEGINNING	PROFESSIONAL	EXEMPLARY
<ul style="list-style-type: none"> <li>• Identifies components of the school culture that value ethics, diversity, equity, and collaboration</li> <li>• Provides a short and long term plan of implementation related to cultural diversity</li> <li>• Provides evidence of activities that promote multicultural values over time</li> <li>• Identifies "best practices," research based and/or evidence based, that ensure success for all students</li> <li>• Develops both a short and long term plan of implementation for enhancing the school culture</li> <li>• Produces a professional development plan for individual staff members based upon cultural needs</li> <li>• Can recognize the existence of a safe, secure and disciplined learning environment and identify "best practices"</li> <li>• Produces a school safety plan</li> <li>• Produces a school-wide discipline plan and/or code of conduct plan</li> <li>• Provides an analysis of the implementation of the plan based upon school data</li> <li>• Identifies behaviors that support the development of self-discipline and engagement in learning</li> <li>• Leads the staff in designing a school-wide discipline plan</li> <li>• Provides evidence of implementation of the plan</li> <li>• Discusses the research/evidence that supports protecting and maximizing learning time</li> <li>• Provides documentation related to practices that facilitate, protect, and maximize learning time</li> <li>• School schedule</li> <li>• Evidence available that supports the development of an effectively functioning leadership team (team structure, agendas and minutes of meetings, School Improvement Plan artifacts, etc.)</li> <li>• Documented results/evidence of leadership team's effectiveness</li> <li>• Qualitative data from actual leadership team members, students, community members, etc. that demonstrate the effectiveness of teamwork</li> <li>• Conducts an analysis of school academic and non-academic data which includes an assessment of the organizational structure</li> <li>• Identifies the productive and non-productive elements in the school's environment and sets priorities for change</li> <li>• Produces a short and long term plan of implementation (examples: Principal Performance Contract, School Improvement Plan, Professional Growth Plan, etc.)</li> <li>• Conducts an ongoing assessment of related outcomes utilizing dynamic academic and non-academic data</li> <li>• Provides documentation of the modeling of collegiality and collaboration</li> </ul>	1. Develops and sustains a school culture based on ethics, diversity, equity, and collaboration.	Is able to <b>identify components</b> related to establishing a school culture that values/honors ethics, diversity, equity, and collaboration.	Is able to identify components related to establishing a school culture that values/honors ethics, diversity, equity, and collaboration. <b>Is able to articulate a short and long term plan of implementation.</b>	Is able to <b>provide evidence</b> of how the school's culture honors differences, values ethics, recognizes equity issues, and nurtures collaboration. <b>These cultural values are pervasive and sustainable.</b>	Is able to provide evidence of how the school's culture honors differences, values ethics, recognizes equity issues, and nurtures collaboration. <b>Has knowledge of internal and external constituencies</b> that influence the learning agenda. These cultural values are sustainable. Is able to <b>mentor other school leaders</b> in the development of this process.
	2. Advocates, nurtures, and leads a culture conducive to student learning.	Is able to <b>identify "best practices"</b> and methods/structures related to the development of a school culture that is focused on student learning.	Advocates for <b>research based and/or evidence based</b> , effective "best practices" which are conducive to student learning. Is able to <b>articulate a short and long term plan</b> to develop a student focused school climate.	Advocates, <b>nurtures, and leads</b> a culture focused on student learning for all students. <b>Is able to provide evidence of success.</b>	Advocates, nurtures, and leads a culture focused on student learning for all students. Is able to provide evidence of success. <b>Plans and executes professional development</b> based on cultural needs. <b>Serves as a mentor</b> to other school leaders in establishing such a culture conducive to student learning.
	3. Develops and sustains a safe, secure and disciplined learning environment.	Is able to <b>identify "best practices"</b> related to school safety and security and student discipline.	<b>Establishes a safety plan</b> and a student discipline/code of conduct plan for school; <b>implement, assess and monitor, and modify the plan</b> as needed based upon school data.	Develops and <b>sustains</b> a safe, secure and <b>disciplined learning environment</b> . Is able to provide evidence of success.	Develops and sustains a safe, secure and disciplined learning environment. Is able to provide evidence of success. <b>Serves as a mentor</b> to other school leaders in establishing such an environment.
	4. Models and communicates to staff, students, and parents self-discipline and engagement in lifelong learning.	<b>Is able to recognize behaviors</b> that a leader can undertake to support the development of self-discipline and engagement in lifelong learning.	<b>Begins to initiate strategies</b> aimed at developing self-discipline and reflective thought/practices and shares with constituents (students, parents, and staff). The leader <b>ensures that learners are engaged.</b>	Uses the knowledge of <b>rigor and relevance</b> to ensure reflective thought. Is able to <b>document evidence</b> of this and <b>articulate strategies</b> that ensure students/staff/parent groups develop self-discipline and are engaged in learning.	Uses the knowledge of rigor and relevance to ensure reflective thought. Is able to document evidence of this and articulate strategies that ensure students/staff/parent groups develop self-discipline and are engaged in learning. <b>Serves as a mentor</b> to other school leaders in developing these leadership skills.
	5. Facilitates and sustains a culture that protects and maximizes learning time.	<b>Recognizes the value</b> of protecting instructional/learning time.	<b>Plan for, facilitate, protect, and maximize</b> instructional/learning time in the school setting and is able to <b>document efforts</b> of doing so.	Consistently plans for, facilitates, protects, and maximizes instructional/learning time. <b>The focus on learning time is easily recognizable in all structures and practices</b> within the school culture.	Consistently plans for, facilitates, protects, and maximizes instructional/learning time. All school structures and practices support learning. <b>Serves as a mentor or coach</b> in assisting other leaders in establishing such a culture of learning.
	6. Develops a leadership team designed to share responsibilities and ownership to meet student learning goals.	Has an <b>understanding of tenets of effective teamwork</b> within a school culture that is aligned with student learning. Also <b>understands that the leadership team is an integral component to meeting the school's goals for student learning.</b>	<b>Has begun the process of establishing an effectively functioning team structure</b> that builds upon staff strengths and are aligned with student learning. <b>Demonstrates a willingness to share the responsibilities.</b>	<b>Ascertains the strengths of staff members to form teams that continuously examine relevant data, share responsibilities and ownership of an improvement plan that is aligned with student learning goals.</b>	Ascertains the strengths of staff members to form teams which continuously examine relevant data, share responsibilities and ownership of an improvement plan that is aligned with student learning goals. <b>Is highly competent in setting up conditions for effective teamwork and serves as a change agent</b> in the school and district setting. <b>Serves as a mentor or coach</b> in assisting other leaders in establishing effective leadership teams.
	7. Demonstrates an understanding of change processes and the ability to	<b>Has an understanding of change processes</b> based upon sound data/evidence/research.	Has an understanding of change processes and <b>demonstrates the ability to lead the</b>	<b>Has established the processes that identifies the need for change, effectively leads the</b>	Has established the processes that identifies the need for change, effectively leads the implementation of productive

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<ul style="list-style-type: none"> <li>• School Climate Surveys</li> <li>• Qualitative data from school staff and other stakeholders that affirm relationship building and its relationship to the learning environment</li> <li>• Conducts an analysis of school academic and non-academic data</li> <li>• Assesses the need for research based change(s)</li> <li>• Produces a short and long term plan of implementation (examples: Principal Performance Contract, School Improvement Plan, Professional Growth Plan, etc.)</li> <li>• Conducts an ongoing assessment of related outcomes</li> <li>• Demonstrates the ability to evaluate the school's family involvement</li> <li>• Alternative methods of involving parents and significant others</li> <li>• Analyzes and evaluates the school's data as the means of determining accomplishments and failures</li> <li>• Efforts made to recognize and celebrate accomplishments</li> <li>• Plan(s) made to address needs/failures</li> <li>• Demonstrates an effective, ongoing process of data collection that provides accurate information for decision making related to this standard</li> <li>• Organizational structure provides for teamwork, grade level/team planning, leadership team focus, etc.; related school procedures; parent/community involvement opportunities; etc.</li> <li>• Teacher retention data</li> <li>• Teacher recruitment plan</li> </ul>	lead the implementation of productive changes in the school.		<b>implementation of an appropriate change</b> in the school based upon sound data/evidence.	<b>implementation of productive changes within the school, and continuously reassesses related outcomes.</b>	changes within the school, and continuously reassesses related outcomes. <b>Serves as a coach for other leaders in successfully implementing change in a school culture.</b>
	8. Leads the school community in building relationships that result in a productive learning environment.	<b>Has an understanding of the importance of relationships</b> within the school community and beyond that result in a productive learning environment.	Is able to <b>enhance the relationship building in the school community</b> that is supportive of learning and <b>collaboration</b> .	<b>Affirms with all stakeholders the mission, vision, and goals. Seeks input and leads stakeholders in relationship building that results in rigor and relevance for students and staff.</b>	Affirms with all stakeholders the mission, vision, and goals. Seeks input and leads stakeholders in relationship building that results in rigor and relevance for students and staff. Is able to <b>assess this process and continually make adjustments. Serves as an "expert" with regard to this standard beyond the school level.</b>
	9. Encourages and leads challenging, research based changes.	<b>Has an understanding of research based strategies and "best practices"</b> that align with school reform efforts aimed at improving learning.	Considers changes that are research based. <b>Is able to plan for, encourage others, and begin to lead</b> the process.	<b>Researches, networks, and collaborates</b> to understand research based strategies/programs/issues. <b>Leads and encourages others</b> in this process. Effectively able to <b>institutionalize research based changes</b> at the school and/or district level.	Continually researching, networking, and collaborating to understand research based strategies/programs/issues. Effectively able to institutionalize research based changes at the school and/or district level. <b>Serves as a mentor or coach</b> to other school leaders in this area.
	10. Establishes and cultivates strong, supportive family connections.	<b>Has an understanding of</b> the need to establish and cultivate strong, supportive family connections.	Considers connections to families and <b>makes decisions that align with positive relationships with families.</b>	<b>Builds and sustains</b> strong, supportive family connections. <b>Is able to implement alternative methods</b> of involving parents.	Builds and sustains strong relationships within community with families. <b>Acts as a mentor or coach</b> to other school leaders in this area.
	11. Recognizes and celebrates school accomplishments and addresses failures.	<b>Understands the importance of</b> recognizing and celebrating accomplishments and addressing failures at the school level.	<b>Develops and implements a school plan</b> that addresses recognitions/celebrations of accomplishments and failures/needs.	<b>Collects data</b> as a means to support accomplishments/celebrations and to plan for addressing failures.	Continually collects data as a means to support accomplishments and celebrations and to plan for addressing failures. <b>Serves as a mentor or coach</b> to other school leaders in this area.
	12. Establishes strong lines of communication with teachers, parents, students, and stakeholders.	<b>Recognizes the importance of and understands the research</b> surrounding strong lines of communication with teachers, parents, students, and stakeholders.	Communication with teachers, parents, students, and stakeholders is <b>two-way or reciprocal</b> .	Communication with teachers, parents, students, and stakeholders is two-way, effective, and <b>collaborative</b> .	Communication with teachers, parents, students, and stakeholders is two-way, effective, and collaborative. <b>Serves as a mentor</b> of other leaders in the area of enhancing two-way communication.
	13. Recruits, hires, and retains teachers whose values and instructional frameworks align with the school's mission.	<b>Has knowledge of</b> recruitment practices, conducting effective interviews, and offering retention options which help maintain a strong workforce of teachers.	Is able to <b>effectively participate in recruitment activities</b> which produce teachers whose values and instructional frameworks align with the school's mission. Is able to <b>effectively interview</b> such candidates and <b>make appropriate hiring decisions</b> that align with the school's goals and needs. <b>Consideration is given to effective retention practices</b> within the leader's control.	<b>Actively recruits and hires</b> teachers who exhibit <b>professional and ethical standards</b> , have <b>strong instructional skills</b> , are engaged in <b>professional growth</b> , and align their professional actions with the school's mission. Consistently is able to <b>maintain a sound retention record</b> of such teachers.	Actively recruits and hires teachers who exhibit professional and ethical standards, have strong instructional skills, are engaged in professional growth, and align their professional actions with the school's mission. Is able to retain such teachers. <b>Serves as a mentor to other leaders, the system, and/or the state in the recruitment, hiring, and retention of strong teacher candidates.</b>

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## LEARNING CENTERED LEADERSHIP POLICY

**5.101**

Standard C: Instructional Leadership and Assessment An effective instructional leader facilitates instructional practices that are based on assessment data and continually improve student learning.					
EXAMPLES OF AUTHENTIC DATA SOURCES/EVIDENCE:	INDICATOR	ASPIRING	BEGINNING	PROFESSIONAL	EXEMPLARY
<ul style="list-style-type: none"> <li>• Analyzes all data to evaluate the school program</li> <li>• Supports the utilization of a systematic process of student assessment and program evaluation aligned with student learning (i.e. able to determine the types of data that will drive the decision making process)</li> <li>• School's professional learning community documents (examples: related staff development, learning teams structure, artifacts of professional learning teams work and related outcomes, etc.)</li> <li>• School Improvement Plan, Component 4</li> <li>• School Improvement Action Plan, etc.</li> <li>• School Improvement Plan, Component 6</li> <li>• School Report Card</li> <li>• Assesses the rigor of the curriculum within individual classrooms and across the school</li> <li>• Utilizes available resources to enhance and support a rigorous curriculum</li> <li>• Shows alignment with district, state and national standards</li> <li>• Identifies appropriate research-based literacy and numeracy instructional strategies and related professional development</li> <li>• Provides evidence of the inclusion of literacy and numeracy strategies in all subject areas as a means to improve student learning (examples: School Improvement Plan, grade level/team planning documents, etc.)</li> <li>• Identifies, based on data, those best practices that will meet the needs of the students in the school and documents through the School Improvement Plan, individual student plans, etc.</li> <li>• Demonstrates the implementation of the use of non-traditional curriculum delivery systems</li> <li>• Provides evidence of student improvement based upon selected curriculum delivery systems</li> </ul>	1. Leads a systematic process of student assessment and program evaluation using qualitative and quantitative data.	Has an understanding of various types of student assessments and program evaluation using both qualitative and quantitative data.	Utilizes and evaluates appropriate student assessments and evaluates research-based programs that improve student learning.	Engages all students and the faculty in a systematic process of student assessment (using qualitative and quantitative data) and program evaluation that improves student learning.	Is able to structure and adapt the systematic assessment/evaluation process to known and unknown challenges in a variety of school settings. Serves as a mentor or coach to other school leaders in this area.
	2. Leads the professional learning community in analyzing and improving curriculum and instruction.	Has an understanding of what a professional learning community is and its impact upon improving curriculum and instruction.	Begins to create a professional learning community that analyzes and improves curriculum and instruction.	Engages the professional learning community in analyzing and improving curriculum and instruction with the result of improved student performance.	Is able to assess the needs of other professional learning communities and lead them in analyzing and improving curriculum and instruction. Serves as a mentor or coach to other school leaders in this area.
	3. Ensures access to a rigorous curriculum and the supports necessary for all students to meet high expectations.	Understands what constitutes a rigorous curriculum and its relationship to high expectations for all students.	Assesses the rigor of the school's curriculum. Develops and implements a plan which ensures rigor.	Continual assessment and adjustment of the plan which ensures rigor.	Is able to assist in structuring a rigorous curriculum with the necessary supports in place in diverse settings. Serves as a mentor or coach to other school leaders in this area.
	4. Recognizes literacy and numeracy are essential for learning and ensures they are embedded in all subject areas.	Has an understanding that literacy and numeracy are important for all students and serve as foundations for all subjects.	Seeks to identify ways to embed literacy and numeracy in all subject areas as a means of improving student learning. Becomes aware of literacy and numeracy best practices and seeks resources for sharing those with staff.	Ensures that literacy and numeracy are appropriately embedded in all subject areas as a strategy to improve student learning. Ensures that literacy and numeracy are taught explicitly, using research-based best practices.	Is able to effectively embed literacy and numeracy in all subject areas and replicate with success in diverse settings. Serves as a mentor or coach to other school leaders in this area.
	5. Uses research based best practice in the development, design, monitoring and implementation of curriculum, instruction, and assessment.	Has an understanding of research based best practices in the educational process.	Seeks to use research based best practice in the development, design, monitoring and implementation of curriculum, instruction and assessment.	Is able to assess and implement applicable research based best practices in the cyclical process of instruction design that results in continuous student improvement.	Is able to assess and implement applicable research based best practices in the cyclical process of instruction design that results in continuous student improvement. This process can be replicated in a variety of settings and shared with other school leaders.
	6. Monitors and evaluates the school's curricular program for rigor.	Has an understanding of the curriculum and the standards. Is able to assess the curriculum for rigor.	Focuses on monitoring and evaluating the school's curricular program for rigor.	Consistently engages school leaders in the monitoring and assessment of the rigor of the curriculum.	Consistently engages school leaders in the monitoring and assessment of the curricular rigor. Participates in this process at the district, state and/or national level. Is able to leads others in this process of monitoring and evaluating the curriculum.
	7. Provides teachers and parents with assessment results on a regular basis.	Has an understanding of the value of communicating assessment results in a timely manner.	Identifies times and implements strategies to communicate assessment results to the appropriate parties (teachers and parents)	Has established a routine and effective schedule for informing teachers and parents with appropriate assessment results.	Has established a routine and effective schedule for informing teachers and parents with appropriate assessment results. Serves as a mentor for other leaders in the area of assessment.
	8. Develops and implements a system to regularly communicate student academic progress and assessment results to parents, students, and teachers.	Has an awareness of the student assessment process at the school level and the importance of communicating results and other related information to parents, students, and teachers.	Begins to identify the most effective ways of regularly communicating student academic progress and assessment results to parents, students, and teachers.	Develops and implements a system to regularly communicate student academic progress and assessment results to parents, students, and teachers.	Develops and implements a system to regularly communicate student academic progress and assessment results to parents, students, and teachers. Acts as a district leader or mentor to others in developing this standard.

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## LEARNING CENTERED LEADERSHIP POLICY

**5.101**

<b>Standard D: Professional Growth</b> <b>An effective instructional leader improves student learning and achievement by developing and sustaining high quality professional development.</b>					
EXAMPLES OF AUTHENTIC DATA SOURCES/EVIDENCE:	INDICATOR	ASPIRING	BEGINNING	PROFESSIONAL	EXEMPLARY
<ul style="list-style-type: none"> <li>• Produces a schedule of observations/evaluations that meets the legal requirements for faculty and staff evaluation</li> <li>• Provides evidence of correct use of applied evaluation "TN Framework", showing notes from pre-conferences, scripts of observations and post conference notes as well as written recommendations</li> <li>• Provides evidence of an alignment between the appraisal documents and a staff member's professional growth plan</li> <li>• (Promotes) Shows evidence of how faculty will be/have been encouraged to engage in appropriate professional growth activities</li> <li>• (Facilitates) Provides documentation of school based professional development activities that are (1) Work/SIP embedded, (2) Aligned with adult learning, (3) Individualized, and (4) Ongoing.</li> <li>• (Evaluates) Produces evidence of an evaluation system for school-wide PD and can provide rationale for recommendations for the future (see #5 below)</li> <li>• Has evidence of an ongoing personal professional growth plan that reveals continuous learning</li> <li>• Participates in school wide and/or system level professional development</li> <li>• Has evidence of an active school leadership team</li> <li>• Develops action plans that empower teachers and others in the learning community to take a leadership role (examples: School Improvement Plans, individual teacher's professional development plans, etc.)</li> <li>• Has identified one or more protégés and assisted them in developing a professional growth plan (example: mentor/protégé plan)</li> <li>• (Promotes) Shows evidence of how faculty will be/have been encouraged to engage in appropriate professional growth activities</li> <li>• (Facilitates) Provides documentation of school based professional development activities that are: (1) Work/SIP embedded, (2) Aligned with adult learning, (3) Individualized, and (4) Ongoing.</li> <li>• (Evaluates) Produces evidence of an evaluation system for school-wide PD and can provide rationale for recommendations for the future</li> <li>• Has evidence of meetings (leadership team, faculty, advisory, etc.) where student data are discussed and analyzed within the limits of FERPA</li> <li>• Appropriately uses multiple sources of student data as part of the evaluation of the professional development plan</li> <li>• Documents source of funding designated for professional development and other needed resources</li> <li>• Provides evidence of efforts to locate needed resources for the successful execution of staff's work (example: provides time for grant writing to further support PD fund allocation; works collaboratively with the community to locate alternative resources; etc.)</li> </ul>	1. Systematically supervises and evaluates faculty and staff.	Has an <b>understanding</b> of various supervision and evaluation processes and the impact supervision and evaluation has on the effectiveness of the school faculty and staff.	<b>Supervises and evaluates faculty and staff according to compliance requirements.</b>	Systematically supervises and evaluates faculty and staff in a manner that <b>positively impacts the school environment.</b>	Systematically supervises and evaluates faculty and staff in a manner that positively impacts the school environment. Serves as a <b>mentor/coach/trainer</b> at the district level in this area.
	2. Promotes, facilitates, and evaluates professional development.	<b>Recognizes the value of professional development.</b> Is able to <b>map own professional development plan</b> and align this plan with appropriate professional development opportunities.	<b>Provides staff with a variety of effective professional development experiences.</b>	<b>Promotes, facilitates, and evaluates professional development and aligns it with staff/school needs.</b>	Serves as a <b>school and district leader</b> in developing, promoting, facilitating, and/or evaluating professional development opportunities that are aligned with individual teacher/staff, school, and district needs.
	3. Models continuous learning and engages in personal professional development.	Has an <b>understanding</b> that a leader should engage in professional learning that is focused on continuous learning.	<b>Seeks personal professional development opportunities</b> that support continuous learning.	<b>Models continuous learning</b> and engages in personal professional development.	Models continuous learning and engages in personal professional development. <b>Is able to assist others in establishing appropriate professional growth plans.</b>
	4. Provides leadership opportunities for the professional learning community and mentors aspiring leaders.	<b>Has an interest</b> in creating a culture that supports leadership development.	Seeks to <b>provide leadership opportunities for others</b> and serve as a mentor/coach for aspiring leaders.	<b>Provides leadership opportunities for the professional learning community and mentors aspiring leaders.</b>	Provides leadership opportunities for the professional learning community and mentors aspiring leaders. <b>Helps design leadership programs at the district, state, and/or national level.</b>
	5. Works in collaboration with the school community to plan and implement high quality professional development with the school's improvement plan to impact student learning.	Has an <b>understanding</b> that professional development should be aligned with student learning, and works with others to identify high quality professional development.	Seeks to <b>collaborate with school members/leaders</b> in planning and implementing professional development that is aligned with the school's improvement plan and that positively impacts student learning.	Works collaboratively with the school community to plan and implement high quality professional development that is <b>embedded in the school's improvement plan and directly impacts student learning.</b>	Works collaboratively with the school community to plan and implement high quality professional development that is imbedded in the school's improvement plan and directly impacts student learning. <b>Assists with the planning and implementation of high quality professional development at the district, state, and/or national level.</b>
	6. Provides faculty and staff with the resources necessary for the successful execution of their jobs.	<b>Is learning faculty and staff members' job requirements and the resources required</b> to execute these jobs adequately.	<b>Provides faculty and staff with the resources necessary for the successful execution of their jobs.</b>	Provides faculty and staff with the resources necessary for the successful execution of their jobs. <b>Anticipates future needs.</b>	Provides faculty and staff with the resources necessary for the successful execution of their jobs. Serves as a <b>mentor/coach</b> for other school leaders in assisting them in this area.

# TENNESSEE STATE BOARD OF EDUCATION

## LEARNING CENTERED LEADERSHIP POLICY

**5.101**

Standard E: Management of the School An effective instructional leader facilitates learning and teaching through the effective use of resources.					
EXAMPLES OF AUTHENTIC DATA SOURCES/EVIDENCE:	INDICATOR	ASPIRING	BEGINNING	PROFESSIONAL	EXEMPLARY
<ul style="list-style-type: none"> <li>• Creates and provides staff with printed overview of basic expected operating guidelines on first day of in-service</li> <li>• Reviews guidelines and provides for written staff feedback and recommendations at the conclusion of school year</li> <li>• Provides evidence of appropriate learning opportunities for all students (examples: school schedules, School Improvement Plan, curriculum, etc.)</li> <li>• Schedules extracurricular, club, and athletic events to minimize interruptions to the academic schedule</li> <li>• Provides evidence of an analysis of student data and daily operations</li> <li>• Develops an annual school budget which directly relates to the goals and objectives of the School Improvement Plan (SIP)</li> <li>• Establishes a budget committee to meet quarterly to assist with the adjustment of new resources or deficit categories</li> <li>• Operates within Local Education Association (LEA) guidelines pertaining to in-school and out-of-school fundraising</li> <li>• List of community resources</li> <li>• Involves the parent organization president (and/or other officers) in budget committee meetings as a way of providing suggestions for allocations of community generated school funds</li> <li>• Includes students, club sponsors, business partners, and para-professional staff members in identifying school budget needs</li> <li>• Establishes effective local business and community partnerships to create streams of financial support to augment the regular school budget</li> <li>• Creates a grant writing team to identify and write grants to support the school's mission</li> <li>• Reviews each budget line item on a monthly basis to identify potential problem areas and addresses these shortfalls in a prompt manner</li> <li>• Corrects all budgetary concerns within timeframes established by school system auditors</li> <li>• Provides evidence of proactive problem solving opportunities</li> <li>• Allows for resource allocations for each school entity (athletic team and clubs) based upon the above criteria</li> <li>• Secures free extra-curricula enrichment opportunities for all students</li> <li>• Regularly communicates with inter and intra school community members concerning the school budgetary needs and local, state, and federal resource allocation requirements</li> <li>• School Improvement Plan</li> <li>• School or District level Communication Plan</li> <li>• Newspaper articles or similar artifacts</li> </ul>	1. Establishes a set of standard operating procedures and routines that are understood and followed by all staff.	Is able to <b>identify standard operating procedures and routines</b> that should be in place to assure effective school management.	Establishes a set of <b>standard operating procedures and routines</b> for the school and ensures that staff is aware of and follows them.	Ensures that <b>all staff understands and follows the standard operating procedures/routines</b> that support the school's mission.	Is able to <b>assist in assessing other schools' needs and suggest standard operating procedures and routines</b> that can be understood and followed by all staff.
	2. Focuses daily operation on the academic achievement of all students.	Has an <b>awareness</b> of daily operations and its impact on student achievement.	<b>Articulates</b> that student academic achievement should align with daily operations.	Academic achievement for all students is the focus of daily operation. <b>Uses continuous improvement to assess the success of the program.</b>	<b>Able to lead others</b> in setting academic achievement for all students as the focus of the daily school operation.
	3. Garners and employs resources to achieve the school's mission.	Has an <b>understanding</b> of the resources required in order to achieve the school's mission.	<b>Has knowledge of the district, community, and state resources</b> required to achieve the school's mission.	<b>Locates and is able to utilize resources effectively</b> to achieve the school's mission.	<b>Is able to lead others</b> in the allocation of resources effectively to achieve the school's mission.
	4. Prepares and regularly monitors an annual operational budget that aligns with the school's improvement plan.	Has a <b>basic understanding</b> of the budgetary process.	Is able to <b>identify how the budget process aligns with the school's improvement plan</b> and has a knowledge of the system requirements. <b>Solicits assistance as needed in the preparation of the annual budget</b> as herein described.	Annually prepares the school's operational budget that aligns with the system's procedures and the school's improvement plan. <b>Regularly and effectively monitors the budget process.</b>	Is able to effectively <b>lead others</b> in the development of the school budget process and routine monitoring process.
	5. Mobilizes community resources to support the school's mission.	Is able to <b>identify community resources</b> to support the school's mission.	<b>Has begun to solicit the support of viable community resources</b> to support the school's mission.	<b>Mobilizes community resources</b> to support the school's mission.	<b>Is able to lead others</b> in the mobilization of community resources to support the school's mission.
	6. Identifies potential problems and is strategic in planning proactive responses.	Has an <b>awareness of potential problems and issues in school management</b> and a working knowledge of strategic planning.	<b>Has begun to identify potential problems in school management and design a strategic plan</b> to proactively address the issues.	Identifies potential problems and is strategic in planning proactive responses. <b>Evaluates and adjusts strategic plans regularly.</b>	Is able to <b>lead others</b> in identifying potential problems and is strategic in planning proactive responses.
	7. Implements a shared understanding of resource management based upon equity, integrity, fairness, and ethical conduct.	Has an <b>understanding</b> of resource management that is based upon equity, integrity, fairness, and ethical conduct.	<b>Has begun to create a culture-shared understanding</b> that manages resources based upon equity, integrity, fairness, and ethical conduct.	<b>Implements a shared understanding</b> of resource management based upon equity, integrity, fairness, and ethical conduct.	<b>Is able to lead others</b> in the implementation of resource management based upon equity, integrity, fairness, and ethical conduct. <b>Is able to help others create a culture of shared understanding.</b>
	8. Develops a comprehensive strategy for positive community and media relations.	Has an <b>understanding</b> of the community and the media's impact and involvement in school success. Is able to identify ways to positively impact such relationships.	Considers community and media relations as a part of <b>school improvement planning and makes plans for positive interactions.</b>	Consistently and comprehensively plans for positive community and media relations. <b>Is able to articulate the plan and align it with daily activities as well as long-range initiatives.</b>	Consistently and comprehensively plans for positive community and media relations. Is able to articulate the plan and align it with daily activities as well as long-range initiatives. Serves as a <b>mentor</b> to other leaders as they develop this standard.

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## LEARNING CENTERED LEADERSHIP POLICY

**5.101**

Standard F: Ethics An effective instructional leader facilitates continuous improvement in student achievement through processes that meet the highest ethical standards and promote advocacy including political action when appropriate.					
EXAMPLES OF AUTHENTIC DATA SOURCES/EVIDENCE:	INDICATOR	ASPIRING	BEGINNING	PROFESSIONAL	EXEMPLARY
<ul style="list-style-type: none"> <li>• Provides evidence of using positional leadership to set the standard for ethical behavior in the school community</li> <li>• Provides evidence of a professional code of ethics and values</li> <li>• Provides evidence of using positional leadership to set the standard for ethical behavior in the school community</li> <li>• Anecdotal evidence of a professional code of ethics and values</li> <li>• 360 degree cultural instrument</li> <li>• Provides evidence of opportunities offered to school stakeholders for effecting positive change</li> <li>• Provides evidence of decision-making that insures the protection of the rights and responsibilities of the student and that support the school's vision</li> <li>• Demonstrates knowledge of educational law and ethics in decision-making</li> <li>• Provides evidence that the law has been applied fairly and wisely</li> </ul>	1. Performs all professional responsibilities with integrity and fairness.	<b>Recognizes</b> the impact of integrity and fairness in a professional setting.	<b>Considers his/her own sense of integrity and fairness</b> when doing the work of a leader.	<b>Performs all professional responsibilities with integrity and fairness.</b>	Serves as a <b>mentor/coach</b> in working with other leaders as they develop the ethical skills of integrity and fairness through the professional work.
	2. Models and adheres to a professional code of ethics and values.	<b>Is cognizant</b> that leaders should have a professional code of ethics and values, and beginning to form his/her own.	<b>Can articulate</b> his/her own professional code of ethics and values.	<b>Models and adheres to</b> a professional code of ethics and values.	Serves as a <b>mentor/coach</b> in working with other leaders as they develop their ethical code/values through the professional work.
	3. Makes decisions within an ethical context and respecting the dignity of all.	<b>Is able to identify and discuss examples/non-examples</b> of when school leaders have made decisions that revealed an attention to the ethical context while respecting the dignity of all.	<b>Considers the ethical context and exemplifies respect</b> for others when making decisions.	<b>Makes decisions within an ethical context</b> while respecting the dignity of all.	Serves as a <b>mentor/coach</b> in working with other leaders as they make decisions within an ethical context, which respect the dignity of all.
	4. Advocates educational, social or political change when necessary to improve learning for students.	<b>Is able to recognize when educational, social or political change is needed</b> to improve student learning in some situations.	Is able to <b>identify</b> when an educational, social or political change is needed to improve student learning and is <b>willing to advocate.</b>	<b>Advocates</b> educational, social or political change <b>when necessary</b> to improve learning for students.	Serves as a <b>mentor/coach</b> in working with other leaders as they advocate for (educational, social, and/or political) change when necessary to improve student learning. <b>Advocates for needed change at the district or state level.</b>
	5. Makes decisions that are in the best interests of students aligned with the vision of the school.	Has an <b>understanding</b> that the students' best interests and the school's vision should be considered when making decisions.	<b>Often considers the impact of decision making</b> upon students and whether the options support the school's vision.	<b>Consistently makes decisions that are in the best interests of students</b> aligned with the vision of the school.	Serves as a <b>mentor/coach</b> in working with other leaders as they make decisions that are in the best interests of students aligned with the school vision.
	6. Considers legal, moral and ethical implications when making decisions.	<b>Understands</b> the legal, moral and ethical implications related to school based decisions.	<b>Is able to identify a range of legal, moral and ethical implications</b> related to potential decision(s).	<b>Consistently considers legal, moral and ethical implications</b> when making decisions.	Serves as <b>mentor/coach</b> in working with other leaders as they consider legal, moral and ethical implications when making decisions.
	7. Acts in accordance with federal and state constitutional provisions, statutory standards and regulatory applications.	<b>Is learning</b> about federal and state constitutional provisions, statutory standards and regulatory applications.	<b>Has knowledge</b> of federal and state constitutional provisions, statutory standards and regulatory applications. <b>Is diligent in soliciting assistance to maintain compliance.</b>	<b>Consistently acts</b> in accordance with federal and state constitutional provisions, statutory standards and regulatory applications.	Serves as a <b>mentor/coach/resource</b> in working with other leaders as they act in accordance with federal and state constitutional provisions, statutory standards and regulatory applications.

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<b>Standard G: Diversity</b> <b>An effective instructional leader responds to and influences the larger personal, political, social, economic, legal and cultural context in the classroom, school, and the local community while addressing diverse student needs to ensure the success of all students.</b>					
EXAMPLES OF AUTHENTIC DATA SOURCES/EVIDENCE:	INDICATOR	ASPIRING	BEGINNING	PROFESSIONAL	EXEMPLARY
<ul style="list-style-type: none"> <li>• Demonstrates an appropriate understanding and implementation of diversity policies, program policies and assessment efforts</li> <li>• Demonstrates an understanding that diversity entails more than ethnicity, race, and religious beliefs</li> <li>• Provides evidence of an effort to recruit, hire and retain a diverse staff</li> <li>• Provides evidence to demonstrate appropriate and effective interpersonal relations with diverse individuals and groups in a variety of settings</li> <li>• Demonstrates an ability to analyze the effects of cultural, learning and personal differences and to make curricular modifications to meet these needs</li> <li>• Provides evidence of how he/she assists teachers in recognizing the diverse needs of the school's families</li> <li>• Demonstrates the ability to provide the faculty with the knowledge they need to engage parents in the education of their children</li> <li>• Process of Walk-Throughs or other class visitation models</li> <li>• Tennessee Framework for Evaluation process (class observations, teacher lesson/unit planning, Educator Information Record, etc.)</li> <li>• School Improvement Planning process</li> <li>• Individual teacher and grade level results of student assessment data</li> <li>• School calendar (noting testing schedule, related teacher meetings, parent/teacher conferences, etc.)</li> <li>• Staff Meeting/grade level/professional development agendas</li> <li>• School calendar (noting testing schedule, related teacher meetings, parent/teacher conferences, etc.)</li> <li>• Staff Meeting/grade level/professional development agendas</li> </ul>	1. Develops and implements an appropriate diversity policy involving the school community and stakeholders which encompasses program planning and assessment efforts.	Has an <b>understanding</b> of the role that diversity plays when organizing work teams, making decisions, and analyzing data/outcomes which impact policy implementation, program planning and assessment efforts.	<b>Considers diversity of the stakeholders</b> (including all diverse school and community groups) when establishing work teams, decisions, and/or outcomes of policy implementation, program planning and assessment efforts.	<b>Involves a diverse cross section of the school community and stakeholders</b> in appropriate diversity policy implementation, program planning and assessment efforts.	<b>Serves as a district leader and/or mentor/coach in working with other leaders</b> as they involve a cross section of the school community and stakeholders in appropriate diversity policy implementation, program planning and assessment efforts.
	2. Recruits, hires, and retains a diverse staff.	Has an understanding of diversity issues related to recruitment, hiring, and retention of school employees.	Considers diversity in recruitment and hiring. Is aware of diversity with regard to staff retention issues.	Recruits, hires, and retains a diverse staff.	Serves as district leader in the area of recruitment, hiring practices, and retention of a diverse staff.
	3. Interacts effectively with diverse individuals and groups using a variety of interpersonal skills in any given situation.	Has an <b>understanding of the required communication skills</b> for interaction with diverse individuals/groups.	<b>Exhibits effective communication</b> skills with diverse individuals and groups.	Interacts effectively with diverse individuals and groups using a <b>variety of interpersonal skills</b> in any given situation.	<b>Serves as a mentor/coach to other leaders and/or as a district leader</b> with regard to effective interactions with diverse individuals/groups in a variety of settings.
	4. Recognizes and addresses cultural, learning and personal differences as a basis for academic decision-making.	Is able to <b>identify</b> cultural, learning and personal differences as a basis for academic decision-making.	<b>Considers cultural, learning and personal differences as a basis for academic decision-making.</b> Has a working knowledge of these differences that exist in the school and community.	Recognizes and addresses cultural, learning and personal differences as a basis for academic decision-making. <b>Communicates importance of considering cultural, learning, and personal differences to staff.</b>	Serves as a <b>mentor/coach</b> to other leaders in recognizing and addressing cultural, learning and personal differences with regard to academic decision-making.
	5. Leads the faculty in engaging families/parents in the education of their children.	Is <b>able to identify opportunities</b> for the faculty/staff to fully engage families/parents in the educational process of their children.	<b>Considers the families/parents</b> in the educational process and <b>encourages the faculty/staff</b> to be cognizant of their involvement.	<b>Leads the faculty in engaging families/parents</b> in the education of their children.	Serves as a <b>mentor/coach</b> to other leaders in working with their faculty/staff in engaging families/parents in the educational process.

## **VI. Glossary of Terminology**

**Academic achievement:** A measure of how well students are learning core concepts and curriculum as evidenced by standardized test scores, performance on classroom assessments, portfolios of student work, or another standards-based assessment tool.

**Advocacy:** The pursuit to influence decisions that affect students and educators directly and society as a whole indirectly; turning passive support into positive action for education.

**Assessment:** *See* FORMATIVE ASSESSMENT/EVALUATION and SUMMATIVE ASSESSMENT/EVALUATION.

**Best practices:** Research based activities, ideas and strategies that provide a measurement of excellence to guide schools in achieving high standards. If practitioners reflect on and adopt best practice standards, they are aware of current research in educational domains and consistently apply the full benefits of their latest knowledge to their professional practice.

**Change processes:** A cyclical series of steps by which a school can realize change or improvement. A change cycle, includes but is not limited to, data analysis, problem clarification, implementation planning, benchmarking, assessment/evaluation strategies, and monitoring strategies.

**Collaboration:** A relationship between individuals or organizations that enables the participants to accomplish goals jointly more successfully than they could have separately. Collaboration is essential in order to deal with the increasingly complex education issues.

**Community resources:** The collection of community sites, health and social agencies, businesses, leaders, and institutions that may become partners in educational efforts. The community resources may be used as content experts, cooperative partners for curriculum, funding sources and other school enrichment purposes.

**Continuous learning:** Based on the idea that learning is a lifelong process continuous learning means that educators continually engage in ongoing professional development and self-assessment of beliefs and assumptions in order to improve teaching and learning.

**Continuous school improvement:** A systemic process focused on increasing student achievement; a dynamic, ongoing, cyclical process that incorporates leadership, curriculum and instruction, culture and climate, and assessment. A school dedicated to continuous improvement gathers data, sets goals, implements a plan, and uses reflection and results to begin the cycle again.

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**Data:** Formative and summative information on student learning, in both aggregated and disaggregated formats, gathered from standardized tests, district-made tests, student work samples, portfolios, and other sources that provides important input to the selection of school or district improvement goals, and focus for staff development efforts and teacher practice and student learning.

Data is also used at the classroom level as teachers gather evidence of improvements in student learning to determine the effects of their professional learning on their own students. Teacher-made tests, assignments, portfolios, and other evidence of student learning are used by teachers to assess whether staff development is having desired effects in their classrooms.

**Disciplined learning environment:** A school campus structured to be accessible, healthy, supportive, secure, safe for students and free of drugs, violence, and other negative disruptions.

**Diverse student needs (diversity):** A variety of differences, including but not limited to ethnicity, language, socioeconomic class, disabilities, culture, and gender, which must be considered to ensure that all students learn.

**Ethics:** The branch of philosophy concerned with standards by which human actions can be judged right or wrong; a system or theory of moral values or principles. In education, ethics may refer to the code of values that guides educators' own behavior in the school setting as well as their daily modeling, instruction, and interaction with students.

**Equity:** The goal of equity is to achieve a high-quality education for all students, regardless of gender, race, ethnicity, socioeconomic status, disabilities, or special needs. Because needs are greater in some situations than others, equal treatment is not necessarily equitable.

**Evaluate:** Provides performance feedback based on personal knowledge that is founded on formal and informal observations, using a variety of supervisory and evaluative strategies.

**Formative assessment/evaluation:** Formative assessment/evaluation occurs during a program or unit of instruction and is used to assess the learner's development, growth or ongoing progress towards meeting a learning goal. Formative evaluation and assessment focus on the process of learning.

**High quality professional development:** Professional development for educators that

- reflects the best available research and practice in teaching, learning, and leadership;
- enables teachers to develop further experience in subject content, teaching strategies, uses of technologies, and other essential elements in teaching to high standards;

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- promotes continuous inquiry and improvement embedded in the daily life of schools;
- follows a coherent long-term plan; and
- is evaluated ultimately on the basis of its impact on teacher effectiveness and student learning.

**Interpersonal skills:** Applying abilities that facilitate the process of interacting and working effectively, respectfully and productively with other people, especially those who hold differing views.

**Leadership teams:** A collaborative team made up of representatives from stakeholder groups that shares responsibilities for leading a school or district. Teams work together to identify problems, craft improvement plans, and reflect on school or district progress.

**Literacy:** The ability to read, write, communicate, and comprehend.

**Mentor:** A role model who offers professional support to another person. A mentor has knowledge and experience in an area and shares it with the person being mentored.

**Mission:** A concise statement of the unique, fundamental purpose of an organization and its programs. The mission describes the organization's "reason for being" and identifies the organization's purpose, service, priorities, and beneficiaries of services.

**Numeracy:** The ability to use numbers and mathematical concepts, solve quantitative problems in various contexts and comprehend the ways in which data are gathered and presented (including but not limited to graphs, diagrams, charts, and tables).

**Organizational structure:** The arrangement of the learning environment, which includes but is not limited to scheduling, staffing, funding, use of teams, use of time, governance and curriculum alignment.

**Personal professional development:** See HIGH QUALITY PROFESSIONAL DEVELOPMENT. The individual process used to identify personal goals for improvement and using tools and resources to meet those goals.

**Political action:** Action initiated or performed with the intent of influencing national, state, or local government.

**Proactive responses:** Action taken to identify and address an issue prior to its causing adverse effects for the organization.

**Productive learning environment:** A culture where teachers, students, and parents are all encouraged and empowered to have a voice and to assume leadership roles in the school community.

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**Professional code of ethics:** A set of broad statements to guide ethical decision making and provide a framework for the ethical standards and principles that should govern the work of principals and other educators. *See* ETHICS.

**Professional learning community:** Colleagues who operate with a commitment to a model of continuous improvement and engages its members in improving their daily work to advance the achievement of school and district goals for student learning.

**Program evaluation:** The use of data and assessment results to reflect on the outcomes, both successes and failures, of the curriculum, educational programs and policies.

**Qualitative data:** Information gathered using methods adapted from anthropology and other social sciences, including systematic observation and interviews.

**Quantitative data:** Information gathered in a numerical format adapted from the traditional scientific method.

**Research-based:** Policies, practices, and/or decisions that are informed by scientific research and studies.

**Resources:** Funds and tools that may be used to support learning and collaboration.

**Rigorous curriculum:** A course of study that emphasizes critical thinking, problem solving, authentic tasks and authentic context, application of knowledge, and ongoing reflection and assessment. Rigorous curriculum teaches “big ideas” and concepts and results in self-directed learners.

**School climate:** School climate refers to the social and educational atmosphere of a school. While the term has been researched for many years, a sole definition has yet to be formulated. The elements that comprise a school’s climate are extensive and may include: number of quality of interactions between adults and students; students’ and teachers’ perception of their school environment; academic performance; feelings of safeness in the school; and feelings of trust and respect for students and teachers.

**School community:** Diverse groups and agencies working together to achieve the best educational outcomes for students. The school community can include but is not limited to students, school staff (teachers, administrators, and support staff), parents, and interested individuals and members of community organizations.

**School culture:** School culture can be described as the values, beliefs and stories of a school. School culture includes values, symbols, beliefs, and shared

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meanings of parents, students, teachers, and others conceived as a group or community. Culture governs what is of worth for this group and how members should think, feel, and behave. The make-up of culture includes a school's customs and traditions; historical accounts; stated and unstated understandings, habits, norms, and expectations; common meanings; and shared assumptions. The more understood, accepted, and cohesive the culture of a school, the better it is able to move in concert toward ideals it holds and objectives it wishes to pursue.

**School-wide improvement plans:** Also called comprehensive school reform, this term refers to a systemic approach to continuous school improvement. See CONTINUOUS SCHOOL IMPROVEMENT.

**Student progress:** Evaluation focused on short-term learning objectives and authentic classroom assessment.

**Summative assessment/evaluation:** Summative assessment/evaluation occurs at the conclusion of a program or unit of instruction and is used to assess the learner's acquired skills and knowledge. Summative evaluation involves the gathering of information about the results of learning, and typically takes the form of a test or comprehensive project.

**Supervise:** To focus staff and students on performance standards and goals through frequent reference and use of performance reviews, classroom observations, discussions of curriculum and instructional strategies, and other formative interactions.

**Stakeholders:** All groups and individuals with a vested interest and a role in student achievement. Stakeholders in education include but are not limited to school boards, superintendents and district personnel, teachers, administrators, community members, families, students, and policymakers.

**Standard operating procedures and routines:** The accepted and generally prescribed ways of completing tasks that are routine and have known outcomes.

**Statutory standards and regulatory applications:** Mandated ways of behaving that are defined and authorized by state-enacted statutes, specifications that are intended to govern/control how the statutes are applied in practice, and regulations that guide the implementation of statute.

**Vision:** Based on the school's mission, represents clearly articulated statements of goals, principles, and expectations for the entire learning community. A vision becomes a guiding force when all educational decisions are based on its framework and goals.

**APPENDIX A**

**TENNESSEE INSTRUCTIONAL LEADERSHIP STANDARDS**

**APPRAISAL INSTRUMENT**



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### TENNESSEE INSTRUCTIONAL LEADERSHIP STANDARDS (TILS) APPRAISAL INSTRUMENT

<b>Standard A: Continuous Improvement</b> <b>An effective instruction leader implements a systematic, coherent approach to bring about the continuous growth in the academic achievement of all students.</b>				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
1. Engages the education stakeholders in developing a school vision, mission and goals that emphasize learning for all students and is consistent with that of the school district.	Is able to identify the key stakeholders and articulate ways to engage them in the development of a school vision, mission, and goals that align with the district and support student learning.	Has a sound understanding of the process of developing a school vision, mission and goals that focus on learning for all students and are consistent with the district. Is able to engage the appropriate stakeholders in the process.	Leads the process of developing the school's vision/mission/goals that engages all stakeholders and ensures learning for all students. The outcomes are appropriately aligned with the district plan.	Is a leader at the district level in strategic planning and mentors developing school leaders in this school level process.
Evidence:				
2. Facilitates the implementation of clear goals, strategies, and timelines to carry out the vision and mission that emphasize learning for all students and keep those goals in the forefront of the school's attention.	Is able to identify ways to facilitate the implementation of goals/strategies that carry out the vision/mission that emphasizes learning for all students.	Has a sound understanding of the facilitation process required in establishing and implementing goals/strategies that carry out the vision/mission and support learning for all students. Is able to facilitate the development of these goals and strategies and implement them adequately.	Effectively implements goals and strategies that carry out the vision and mission that ensure learning for all students. A consistent focus is placed upon these goals, and the goals drive all decisions.	Able to effectively replicate the process of establishing goals/strategies that support the school's vision/mission and ensure all students are successful while mentoring other school leaders.
Evidence:				
3. Creates and sustains an organizational structure that supports school vision, mission, and goals that emphasize learning for all students.	Is gaining knowledge of various organizational structures that support the process of continuous improvement and learning for all students.	Is knowledgeable of various organizational structures that support the process of continuous improvement and is able to create an organizational framework to support the implementation of the vision/mission/goals.	Is able to systematically create and sustain a valuable organizational structure that supports the school's vision/mission/goals and ensure that all students learn.	Is able to systematically create and sustain a valuable organizational structure that supports the school's vision/mission/goals and ensure that all students learn. Routinely assesses how the structure supports the vision/mission/goals and adjusts when needed. Is able to coach other leaders through this process.
Evidence:				
4. Facilitates the development, implementation, evaluation and revision of data informed school-wide improvement plans for the purpose of continuous school improvement.	Has an understanding of the school wide improvement planning process for the purpose of continuous school improvement.	Has a strong understanding of the school wide improvement planning process that utilizes data to develop, implement, evaluate, and revise plans for the purpose of continuous improvement. Is able to facilitate the process at the school level using formative Data Sources/Evidence.	Consistently facilitates the process of developing, implementing, evaluating, and revising school wide improvement planning that is data driven.	Consistently facilitates the cyclical process of developing, implementing, evaluating, and revising school wide improvement planning that is data driven. Is able to assist other school leaders in this continuous school wide improvement process and articulate/demonstrate how to improve upon their practices.
Evidence:				
5. Collaborates with parents/guardians, community agencies and school system leaders in the implementation of continuous improvement.	Is able to identify parent, community, and other groups that can enhance the continuous improvement process at the school level.	Is able to identify parent, community, and other groups that can enhance the continuous improvement process at the school level, and is beginning to establish some relationships within these groups.	Consistently develops collaborations with parent/guardians, community agencies and district leaders that support the process of continuous improvement.	Consistently develops collaborations and partnerships with parent/guardians, community agencies and district leaders that support the cycle of continuous improvement. Is able to assist other school leaders in identifying methods and systems to replicate positive and effective partnerships.
Evidence:				

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INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
6. Communicates and operates from a strong belief that all students can achieve academic success.	Espouses the belief that all students can be academically successful.	Espouses the belief that all students can be successful and approaches leadership tasks with this in mind.	All actions and communications with various stakeholder groups are steeped in the belief that all students can academically achieve.	Is able to articulate this belief and act accordingly in a consistent manner. Is an active advocate for this belief at other levels.
Evidence:				
<b>Standard B: Culture for Teaching and Learning</b>				
<b>An effective instructional leader creates a school culture and climate based on high expectations conducive to the success of all students.</b>				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
1. Develops and sustains a school culture based on ethics, diversity, equity, and collaboration.	Is able to identify components related to establishing a school culture that values/honors ethics, diversity, equity, and collaboration.	Is able to identify components related to establishing a school culture that values/honors ethics, diversity, equity, and collaboration. Is able to articulate a short and long term plan of implementation.	Is able to provide evidence of how the school's culture honors differences, values ethics, recognizes equity issues, and nurtures collaboration. These cultural values are pervasive and sustainable.	Is able to provide evidence of how the school's culture honors differences, values ethics, recognizes equity issues, and nurtures collaboration. Has knowledge of internal and external constituencies that influence the learning agenda. These cultural values are sustainable. Is able to mentor other school leaders in the development of this process.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
2. Advocates, nurtures, and leads a culture conducive to student learning.	Is able to identify "best practices" and methods/structures related to the development of a school culture that is focused on student learning.	Advocates for research based and/or evidence based, effective "best practices" which are conducive to student learning. Is able to articulate a short and long term plan to develop a student focused school climate.	Advocates, nurtures, and leads a culture focused on student learning for all students. Is able to provide evidence of success.	Advocates, nurtures, and leads a culture focused on student learning for all students. Is able to provide evidence of success. Plans and executes professional development based on cultural needs. Serves as a mentor to other school leaders in establishing such a culture conducive to student learning.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
3. Develops and sustains a safe, secure and disciplined learning environment.	Is able to identify "best practices" related to school safety and security and student discipline.	Establishes a safety plan and a student discipline/code of conduct plan for school; implement, assess and monitor, and modify the plan as needed based upon school data.	Develops and sustains a safe, secure and <u>disciplined learning environment</u> . Is able to provide evidence of success.	Develops and sustains a safe, secure and <u>disciplined learning environment</u> . Is able to provide evidence of success. Serves as a mentor to other school leaders in establishing such an environment.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
4. Models and communicates to staff, students, and parents self-discipline and engagement in lifelong learning.	Is able to recognize related factors and behaviors that a leader can acquire to support the development of self-discipline and engagement in lifelong learning for the staff, students and parents.	Begins to initiate strategies aimed at developing self-discipline and reflective thought/practices for constituents (students, parents, and staff). The leader ensures that learners are engaged.	Uses the knowledge of rigor and relevance to ensure reflective thought. Is able to document evidence of this and articulate strategies that ensure students/staff/parent groups develop self-discipline and are engaged in learning.	Uses the knowledge of rigor and relevance to ensure reflective thought. Is able to document evidence of this and articulate strategies that ensure students/staff/parent groups develop self-discipline and are engaged in learning. Serves as a mentor to other school leaders in developing these leadership skills.
Evidence:				

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INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
5. Facilitates and sustains a culture that protects and maximizes learning time.	Recognizes the value of protecting instructional/learning time.	Is cognizant of the need to plan for, facilitate, protect, and maximize instructional/learning time in the school setting and is able to document efforts of doing so.	Consistently plans for, facilitates, protects, and maximizes instructional/learning time. This is easily recognizable in all structures and practices within the school culture.	Consistently plans for, facilitates, protects, and maximizes instructional/learning time. All school structures and practices support learning. Serves as a mentor or coach in assisting other leaders in establishing such a culture of learning.
Evidence:				
6. Develops a leadership team designed to share responsibilities and ownership to meet student learning goals.	Has an understanding of tenets of effective teamwork within a school culture that is aligned with student learning. Also understands that the leadership team is an integral component to meeting the school's goals for student learning.	Has begun the process of establishing an effectively functioning team structure that builds upon staff strengths and are aligned with student learning. Demonstrates a willingness to share the responsibilities of running the school.	Ascertain the strengths of staff members to form teams that continuously examine relevant data, share responsibilities and ownership of an improvement plan that is aligned with student learning goals.	Ascertain the strengths of staff members to form teams which continuously examine relevant data, share responsibilities and ownership of an improvement plan that is aligned with student learning goals. Is highly competent in setting up conditions for effective teamwork and serves as a change agent in the school and district setting. Serves as a mentor or coach in assisting other leaders in establishing effective leadership teams.
Evidence:				
7. Demonstrates an understanding of change processes and the ability to lead the implementation of productive changes in the school.	Has an understanding of change processes and is able to plan for the implementation of productive changes based upon sound data/evidence and research proven strategies.	Has an understanding of change processes and demonstrates the ability to lead the implementation of an appropriate change in the school based upon sound data/evidence.	Has established the processes that identifies the need for change, effectively leads the implementation of productive changes within the school, and continuously reassesses related outcomes.	Has established the processes that identifies the need for change, effectively leads the implementation of productive changes within the school, and continuously reassesses related outcomes. Serves as a coach for other leaders in successfully implementing change in a school culture.
Evidence:				
8. Leads the school community in building relationships that result in a productive learning environment.	Has an understanding of the importance of relationships within the school community and beyond that result in a productive learning environment.	Is able to enhance the relationship building in the school community that is supportive of learning and collaboration.	Affirms with all stakeholders the mission, vision, and goals. Seeks input and leads stakeholders in relationship building that results in rigor and relevance for students and staff.	Affirms with all stakeholders the mission, vision, and goals. Seeks input and leads stakeholders in relationship building that results in rigor and relevance for students and staff. Is able to assess this process and continually make adjustments. Serves as an "expert" with regard to this standard beyond the school level.
Evidence:				
9. Encourages and leads challenging, research based changes.	Has an understanding of research based strategies and "best practices" that align with school reform efforts aimed at improving learning.	Considers changes that are research based. Is able to plan for, encourage others, and begin to lead the process.	Researches, networks, and collaborates to understand research based strategies/programs/issues. Leads and encourages others in this process.	Continually researching, networking, and collaborating to understand research based strategies/programs/issues. Effectively able to institutionalize research based changes at the school and/or district level. Serves as a mentor or coach to other school leaders in this area.
Evidence:				

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**5.101**

INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
10. Establishes and cultivates strong, supportive family connections.	Has an understanding of the need to establish and cultivate strong, supportive family connections.	Considers connections to families and makes decisions that align with positive relationships with families.	Builds and sustains strong, supportive family connections. Is able to implement alternative methods of involving parents.	Builds and sustains strong relationships within community with families and businesses. Acts as a mentor or coach to other school leaders in this area.
Evidence:				
11. Recognizes and celebrates school accomplishments and addresses failures.	Understands the importance of recognizing and celebrating accomplishments and addressing failures at the school level.	Beginning to develop a school plan that addresses recognitions/celebrations of accomplishments and failures/needs.	Collects data as a means to support accomplishments/celebrations and to plan for addressing failures.	Continually collects data as a means to support accomplishments and celebrations and to plan for addressing failures. Serves as a mentor or coach to other school leaders in this area.
Evidence:				
12. Establishes strong lines of communication with teachers, parents, students, and stakeholders.	Recognizes the importance of establishing strong lines of communication with teachers, parents, students, and stakeholders.	Communication with teachers, parents, students, and stakeholders is two-way or reciprocal.	Communication with teachers, parents, students, and stakeholders is two-way, effective, and collaborative.	Communication with teachers, parents, students, and stakeholders is two-way, effective, and collaborative. Serves as a mentor of other leaders in the area of enhancing two-way communication.
Evidence:				
13. Recruits, hires, and retains teachers whose values and instructional frameworks align with the school's mission.	Recognizes the importance of examining recruitment practices, conducting effective interviews, and offering retention options which help maintain a strong workforce of teachers.	Is able to effectively participate in recruitment activities which produce teacher's whose values and instructional frameworks align with the school's mission. Is able to effectively interview such candidates and make appropriate hiring decisions that align with the school's goals and needs. Consideration is given to effective retention practices within the leader's control.	Actively recruits and hires teachers who exhibit professional and ethical standards, have strong instructional skills, are engaged in professional growth, and align their professional actions with the school's mission. Consistently is able to maintain a sound retention record of such teachers.	Actively recruits and hires teachers who exhibit professional and ethical standards, have strong instructional skills, are engaged in professional growth, and align their professional actions with the school's mission. Is able to retain such teachers. Serves as a mentor to other leaders, the system, and/or the state in the recruitment, hiring, and retention of strong teacher candidates.
Evidence:				
<b>Standard C: Instructional Leadership and Assessment</b>				
<b>An effective instructional leader facilitates instructional practices that are based on assessment data and continually improve student learning.</b>				
1. Leads a systematic process of student assessment and program evaluation using qualitative and quantitative data.	Has an understanding of various types of student assessments and program evaluation using both qualitative and quantitative data.	Seeks to utilize appropriate student assessments and evaluate research-based programs that improve student learning.	Engages all students and the faculty in a systematic process of student assessment (using qualitative and quantitative data) and program evaluation that improves student learning.	Is able to structure and adapt the systematic assessment/evaluation process to known and unknown challenges in a variety of school settings. Serves as a mentor or coach to other school leaders in this area.
Evidence:				
2. Leads the professional learning community in analyzing and improving curriculum and instruction.	Has an understanding of what a professional learning community is and its impact upon improving curriculum and instruction.	Begins to create a professional learning community that analyzes and improves curriculum and instruction.	Engages the professional learning community in analyzing and improving curriculum and instruction with the result of improved student performance.	Is able to assess the needs of other professional learning communities and lead them in analyzing and improving curriculum and instruction. Serves as a mentor or coach to other school leaders in this area.
Evidence:				

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INDICATOR	<b>ASPIRING</b> <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	<b>BEGINNING</b> <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	<b>PROFESSIONAL</b> <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	<b>EXEMPLARY</b> <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
3. Ensures access to a rigorous curriculum and the supports necessary for all students to meet high expectations.	Has an understanding of the value of a rigorous curriculum and its relationship to high expectations for all students.	Seeks to provide accessibility to a more rigorous curriculum and provide support for all students to be successful.	Provides accessibility to a rigorous curriculum and its necessary supports to ensure all students meet high expectations.	Is able to assist in structuring a rigorous curriculum with the necessary supports in place in diverse settings. Serves as a mentor or coach to other school leaders in this area.
Evidence:				
4. Recognizes literacy and numeracy are essential for learning and ensures they are embedded in all subject areas.	Has an understanding that literacy and numeracy are important for all students.	Seeks to identify ways to embed literacy and numeracy in all subject areas as a means of improving student learning.	Ensures that literacy and numeracy are appropriately embedded in all subject areas as a strategy to improve student learning.	Is able to effectively embed literacy and numeracy in all subject areas and replicate with success in diverse settings. Serves as a mentor or coach to other school leaders in this area.
Evidence:				
5. Uses research based best practice in the development, design, monitoring and implementation of curriculum, instruction, and assessment.	Has an understanding of research based best practices in the educational process.	Seeks to use research based best practice in the development, design, monitoring and implementation of curriculum, instruction and assessment.	Is able to assess and implement applicable research based best practices in the cyclical process of instruction that results in continuous student improvement.	Is able to assess and implement applicable research based best practices in the cyclical process of instruction that results in continuous student improvement. This process can be replicated in a variety of settings and shared with other school leaders.
Evidence:				
6. Monitors and evaluates the school's curricular program for rigor.	Has an understanding of the curriculum and the standards. Is able to assess the curriculum for rigor.	Focuses on monitoring and evaluating the school's curricular program for rigor.	Consistently engages school leaders in the monitoring and assessment of the rigor of the curriculum.	Consistently engages school leaders in the monitoring and assessment of the curricular rigor. Participates in this process at the district, state and/or national level. Is able to leads others in this process of monitoring and evaluating the curriculum.
Evidence:				
7. Provides teachers and parents with assessment results on a regular basis.	Has an understanding of the value of communicating assessment results in a timely manner.	Identifies times to communicate assessment results to the appropriate parties (teachers and parents).	Has established a routine and effective schedule for informing teachers and parents with appropriate assessment results.	Has established a routine and effective schedule for informing teachers and parents with appropriate assessment results. Serves as a mentor for other leaders in the area of assessment.
Evidence:				
8. Develops and implements a system to regularly communicate student academic progress and assessment results to parents, students, and teachers.	Has an awareness of the student assessment process at the school level and the importance of communicating results and other related information to parents, students, and teachers.	Begins to identify the most effective ways of regularly communicating student academic progress and assessment results to parents, students, and teachers.	Develops and implements a system to regularly communicate student academic progress and assessment results to parents, students, and teachers.	Develops and implements a system to regularly communicate student academic progress and assessment results to parents, students, and teachers. Acts as a district leader or mentor to others in developing this standard.
Evidence:				

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Standard D: Professional Growth An effective instructional leader improves student learning and achievement by developing and sustaining high quality professional development.				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
1. Systematically supervises and evaluates faculty and staff.	Has an understanding of various supervision and evaluation processes and the impact supervision and evaluation has on the effectiveness of the school faculty and staff.	Supervises and evaluates faculty and staff according to compliance requirements.	Systematically supervises and evaluates faculty and staff in a manner that positively impacts the school environment.	Systematically supervises and evaluates faculty and staff in a manner that positively impacts the school environment. Serves as a mentor/coach/trainer at the district level in this area.
Evidence:				
2. Promotes, facilitates, and evaluates professional development.	Recognizes the value of professional development. Is able to map own professional development plan and align this plan with appropriate professional development opportunities.	Promotes, facilitates, and evaluates professional development.	Promotes, facilitates, and evaluates professional development and aligns it with staff/school needs.	Serves as a school and district leader in developing, promoting, facilitating, and/or evaluating professional development opportunities that are aligned with individual teacher/staff, school, and district needs.
Evidence:				
3. Models continuous learning and engages in personal professional development.	Has an understanding that a leader should engage in professional learning that is focused on continuous learning.	Seeks personal professional development opportunities that support continuous learning.	Models continuous learning and engages in personal professional development.	Models continuous learning and engages in personal professional development. Is able to assist others in establishing appropriate professional growth plans.
Evidence:				
4. Provides leadership opportunities for the professional learning community and mentors aspiring leaders.	Has an interest in creating a culture that supports leadership development.	Seeks to provide leadership opportunities for others and serve as a mentor/coach for aspiring leaders.	Provides leadership opportunities for the professional learning community and mentors aspiring leaders.	Provides leadership opportunities for the professional learning community and mentors aspiring leaders. Helps design leadership programs at the district, state, and/or national level.
Evidence:				
5. Works in collaboration with the school community to plan and implement high quality professional development with the school's improvement plan to impact student learning.	Has an understanding that professional development should be aligned with student learning, and works with others to identify high quality professional development.	Seeks to collaborate with school members/leaders in planning and implementing professional development that is aligned with the school's improvement plan and that positively impacts student learning.	Works collaboratively with the school community to plan and implement high quality professional development that is imbedded in the school's improvement plan and directly impacts student learning.	Works collaboratively with the school community to plan and implement high quality professional development that is imbedded in the school's improvement plan and directly impacts student learning. Assists with the planning and implementation of high quality professional development at the district, state, and/or national level.
Evidence:				
6. Provides faculty and staff with the resources necessary for the successful execution of their jobs.	Is learning faculty and staff members' job requirements and the resources required to execute these jobs adequately.	Seeks to provide faculty and staff with the resources necessary for the successful execution of their jobs.	Provides faculty and staff with the resources necessary for the successful execution of their jobs.	Provides faculty and staff with the resources necessary for the successful execution of their jobs. Serves as a mentor/coach for other school leaders in assisting them in this area.
Evidence:				

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<b>Standard E: Management of the School</b> <b>An effective instructional leader facilitates learning and teaching through the effective use of resources.</b>				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
1. Establishes a set of standard operating procedures and routines that are understood and followed by all staff.	Is able to identify standard operating procedures and routines that should be in place to assure effective school management.	Establishes a set of standard operating procedures and routines for the school and ensures that staff is aware of and follows them.	Ensures that all staff understands and follows the standard operating procedures/routines that support the school's mission.	Is able to assist in assessing other schools' needs and suggest standard operating procedures and routines that can be understood and followed by all staff.
Evidence:				
2. Focuses daily operation on the academic achievement of all students.	Has an awareness of daily operations and its impact on student achievement.	Articulates that student academic achievement should align with daily operations.	Academic achievement for all students is the focus of daily operation. Uses continuous improvement to assess the success of the program.	Able to lead others in setting academic achievement for all students as the focus of the daily school operation.
Evidence:				
3. Garners and employs resources to achieve the school's mission.	Has an understanding of the resources required in order to achieve the school's mission.	Has knowledge of the resources required to achieve the school's mission and is beginning to make appropriate decisions regarding implementation.	Locates and is able to utilize resources effectively to achieve the school's mission.	Is able to lead others in the allocation of resources effectively to achieve the school's mission.
Evidence:				
4. Prepares and regularly monitors an annual operational budget that aligns with the school's improvement plan.	Has a basic understanding of the budgetary process.	Is able to identify how the budget process aligns with the school's improvement plan and has a knowledge of the system requirements. Solicits assistance as needed in the preparation of the annual budget as herein described.	Annually prepares the school's operational budget that aligns with the system's procedures and the school's improvement plan. Regularly and effectively monitors the budget process.	Is able to effectively lead others in the development of the school budget process and routine monitoring process.
Evidence:				
5. Mobilizes community resources to support the school's mission.	Is able to identify community resources to support the school's mission.	Has begun to solicit the support of viable community resources to support the school's mission.	Mobilizes community resources to support the school's mission.	Is able to lead others in the mobilization of community resources to support the school's mission.
Evidence:				
6. Identifies potential problems and is strategic in planning proactive responses.	Has an awareness of potential problems and issues in school management and a working knowledge of strategic planning.	Has begun to identify potential problems in school management and design a strategic plan to proactively address the issues.	Identifies potential problems and is strategic in planning proactive responses.	Is able to lead others in identifying potential problems and is strategic in planning proactive responses.
Evidence:				
7. Implements a shared understanding of resource management based upon equity, integrity, fairness, and ethical conduct.	Has an understanding of resource management that is based upon equity, integrity, fairness, and ethical conduct.	Has begun to create a culture-shared understanding that manages resources based upon equity, integrity, fairness, and ethical conduct.	Implements a shared understanding of resource management based upon equity, integrity, fairness, and ethical conduct.	Is able to lead others in the implementation of resource management based upon equity, integrity, fairness, and ethical conduct. Is able to help others create a culture of shared understanding.
Evidence:				

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**5.101**

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8. Develops a comprehensive strategy for positive community and media relations.	Has an understanding of the community and the media's impact and involvement in school success. Is able to identify ways to positively impact such relationships.	Considers community and media relations as a part of school improvement planning and makes plans for positive interactions.	Consistently and comprehensively plans for positive community and media relations. Is able to articulate the plan and align it with daily activities as well as long-range initiatives.	Consistently and comprehensively plans for positive community and media relations. Is able to articulate the plan and align it with daily activities as well as long-range initiatives. Serves as a mentor to other leaders as they develop this standard.
Evidence:				
<b>Standard F: Ethics</b>				
<b>An effective instructional leader facilitates continuous improvement in student achievement through processes that meet the highest ethical standards and promote advocacy including political action when appropriate.</b>				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
1. Performs all professional responsibilities with integrity and fairness.	Recognizes the impact of integrity and fairness in a professional setting.	Considers his/her own sense of integrity and fairness when doing the work of a leader.	Performs all professional responsibilities with integrity and fairness.	Serves as a mentor/coach in working with other leaders as they develop the ethical skills of integrity and fairness through the professional work.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
2. Models and adheres to a professional code of ethics and values.	Is cognizant that leaders should have a professional code of ethics and values, and beginning to form his/her own.	Can articulate his/her own professional code of ethics and values.	Models and adheres to a professional code of ethics and values.	Serves as a mentor/coach in working with other leaders as they develop their ethical code/values through the professional work.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
3. Makes decisions within an ethical context and respecting the dignity of all.	Is able to identify and discuss examples/non-examples of when school leaders have made decisions that revealed an attention to the ethical context while respecting the dignity of all.	Considers the ethical context and exemplifies respect for others when making decisions.	Makes decisions within an ethical context while respecting the dignity of all.	Serves as a mentor/coach in working with other leaders as they make decisions within an ethical context, which respect the dignity of all.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
4. Advocates educational, social or political change when necessary to improve learning for students.	Is able to identify when educational, social or political change is needed to improve student learning, and is able to discuss the possible ramifications of such change.	Is able to identify when an educational, social or political change is needed to improve student learning and is willing to advocate.	Advocates educational, social or political change when necessary to improve learning for students.	Serves as a mentor/coach in working with other leaders as they advocate for (educational, social, and/or political) change when necessary to improve student learning.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
5. Makes decisions that are in the best interests of students aligned with the vision of the school.	Has an understanding that the students' best interests and the school's vision should be considered when making decisions.	Often considers the impact of decision making upon students and whether the options support the school's vision.	Makes decisions that are in the best interests of students aligned with the vision of the school.	Serves as a mentor/coach in working with other leaders as they make decisions that are in the best interests of students aligned with the school vision.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
6. Considers legal, moral and ethical implications when making decisions.	Understands the legal, moral and ethical implications related to school based decisions.	Is able to identify a range of legal, moral and ethical implications related to potential decision(s).	Consistently considers legal, moral and ethical implications when making decisions.	Serves as mentor/coach in working with other leaders as they consider legal, moral and ethical implications when making decisions.
Evidence:				

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INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
7. Acts in accordance with federal and state constitutional provisions, statutory standards and regulatory applications.	Is learning about federal and state constitutional provisions, statutory standards and regulatory applications.	Has knowledge of federal and state constitutional provisions, statutory standards and regulatory applications. Is diligent in soliciting assistance to maintain compliance.	Acts in accordance with federal and state constitutional provisions, statutory standards and regulatory applications.	Serves as a mentor/coach in working with other leaders as they act in accordance with federal and state constitutional provisions, statutory standards and regulatory applications.
Evidence:				
<b>Standard G: Diversity</b> An effective instructional leader responds to and influences the larger personal, political, social, economic, legal and cultural context in the classroom, school, and the local community while addressing diverse student needs to ensure the success of all students.				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
1. Develops and implements an appropriate diversity policy involving the school community and stakeholders which encompasses program planning and assessment efforts.	Has an understanding of the role that diversity plays when organizing work teams, making decisions, and analyzing data/outcomes which impact policy implementation, program planning and assessment efforts.	Considers diversity of the stakeholders (including all diverse school and community groups) when establishing work teams, decisions, and/or outcomes of policy implementation, program planning and assessment efforts.	Involves a diverse cross section of the school community and stakeholders in appropriate diversity policy implementation, program planning and assessment efforts.	Serves as a district leader and/or mentor/coach in working with other leaders as they involve a cross section of the school community and stakeholders in appropriate diversity policy implementation, program planning and assessment efforts.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
2. Recruits, hires, and retains a diverse staff.	Has an understanding of diversity issues related to recruitment, hiring, and retention of school employees.	Considers diversity in recruitment and hiring. Is aware of diversity with regard to staff retention issues.	Recruits, hires, and retains a diverse staff.	Serves as district leader in the area of recruitment, hiring practices, and retention of a diverse staff.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
3. Interacts effectively with diverse individuals and groups using a variety of interpersonal skills in any given situation.	Has an understanding of the required communication skills for interaction with diverse individuals/groups.	Exhibits effective communication skills with diverse individuals and groups.	Interacts effectively with diverse individuals and groups using a variety of interpersonal skills in any given situation.	Serves as a mentor/coach to other leaders and/or as a district leader with regard to effective interactions with diverse individuals/groups in a variety of settings.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
4. Recognizes and addresses cultural, learning and personal differences as a basis for academic decision-making.	Is able to identify cultural, learning and personal differences as a basis for academic decision-making.	Considers cultural, learning and personal differences as a basis for academic decision-making. Has a working knowledge of these differences that exist in the school and community.	Recognizes and addresses cultural, learning and personal differences as a basis for academic decision-making.	Serves as a mentor/coach to other leaders in recognizing and addressing cultural, learning and personal differences with regard to academic decision-making.
Evidence:				
INDICATOR	ASPIRING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	BEGINNING <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	PROFESSIONAL <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH	EXEMPLARY <input type="checkbox"/> SELF <input type="checkbox"/> DIRECTOR/DESIGNEE <input type="checkbox"/> PARTNER/COACH
5. Leads the faculty in engaging families/parents in the education of their children.	Is able to identify opportunities for the faculty/staff to fully engage families/parents in the educational process of their children.	Considers the families/parents in the educational process and encourages the faculty/staff to be cognizant of their involvement.	Leads the faculty in engaging families/parents in the education of their children.	Serves as a mentor/coach to other leaders in working with their faculty/staff in engaging families/parents in the educational process.
Evidence:				

**TENNESSEE STATE BOARD OF EDUCATION**

**LEARNING CENTERED LEADERSHIP POLICY**

**5.101**

**APPENDIX B**

**INSTRUCTIONAL LEADERS PROFESSIONAL DEVELOPMENT PLAN**

**TENNESSEE STATE BOARD OF EDUCATION**

**LEARNING CENTERED LEADERSHIP POLICY**

**5.101**

<b>TENNESSEE STATE BOARD OF EDUCATION</b>	
<b>LEARNING CENTERED LEADERSHIP POLICY</b>	<b>5.101</b>

**INSTRUCTIONAL LEADERS PROFESSIONAL DEVELOPMENT PLAN**

[Note: The Tennessee Department of Education requires a minimum of 28 units of TASL approved professional growth activities every two years.]

Name		SS#	
	<small>Last First MI</small>		
System/School/Dept.		Position	Year:

**AREA(S) TO BE STRENGTHENED/DEVELOPED (ALIGNED WITH TILS)**

**ACTION PLAN**

**Professional Growth Goal:**

**Resources Needed:**

**Time Frame:**

<u>Action Steps</u>	<u>Expected Results</u>	<u>Documented Outcome(s)</u>
		[Note: Partially met outcomes inform next professional growth plan.]

Signatures below verify that the above applicant has completed all requirements for advancement to the  Professional  Exemplary Administrative License Requirements.

[Requirements include Performance Contract/Professional Growth Plan completion for 3-5 years as Professional or Exemplary.] From (MM/DD/YY) \_\_\_\_\_ to (MM/DD/YY) \_\_\_\_\_

Attach appropriate number of years' Professional Growth Plans to this document prior to submitting to TASL/Partner.

Signature of Principal/Administrator		Date		School/Dept	
Signature of Director/Designee		Date		System	
Professional Growth Partner		Date		Name of Institution	

<b>TENNESSEE STATE BOARD OF EDUCATION</b>	
<b>LEARNING CENTERED LEADERSHIP POLICY</b>	<b>5.101</b>

**APPENDIX C**

**TILS E-Log**

**TENNESSEE STATE BOARD OF EDUCATION**

**LEARNING CENTERED LEADERSHIP POLICY**

**5.101**

**TENNESSEE STATE BOARD OF EDUCATION**

**LEARNING CENTERED LEADERSHIP POLICY**

**5.101**

TENNESSEE INSTRUCTIONAL LEADERSHIP STANDARDS (TILS) E-LOG

<b>Standard A: Continuous Improvement</b>	
<b>An effective instruction leader implements a systematic, coherent approach to bring about the continuous growth in the academic achievement of all students.</b>	
<b>INDICATOR</b>	<b>E-LOG</b>
1. Engages the education stakeholders in developing a school vision, mission and goals that emphasize learning for all students and is consistent with that of the school district.	
2. Facilitates the implementation of clear goals, strategies, and timelines to carry out the vision and mission that emphasize learning for all students and keep those goals in the forefront of the school's attention.	
3. Creates and sustains an organizational structure that supports school vision, mission, and goals that emphasize learning for all students.	
4. Facilitates the development, implementation, evaluation and revision of data informed school-wide improvement plans for the purpose of continuous school improvement.	
5. Collaborates with parents/guardians, community agencies and school system leaders in the implementation of continuous improvement.	
6. Communicates and operates from a strong belief that all students can achieve academic success.	
<b>Standard B: Culture for Teaching and Learning</b>	
<b>An effective instructional leader creates a school culture and climate based on high expectations conducive to the success of all students.</b>	
<b>INDICATOR</b>	<b>E-LOG</b>
1. Develops and sustains a school culture based on ethics, diversity, equity, and collaboration.	
2. Advocates, nurtures, and leads a culture conducive to student learning.	
3. Develops and sustains a safe, secure and disciplined learning environment.	
4. Models and communicates to staff, students, and parents self-discipline and engagement in lifelong learning.	
5. Facilitates and sustains a culture that protects and maximizes learning time.	
6. Develops a leadership team designed to share responsibilities and ownership to meet student learning goals.	
7. Demonstrates an understanding of change processes and the ability to lead the implementation of productive changes in the school.	
8. Leads the school community in building relationships that result in a productive learning environment.	
9. Encourages and leads challenging, research based changes.	
10. Establishes and cultivates strong, supportive family connections.	
11. Recognizes and celebrates school accomplishments and addresses failures.	
12. Establishes strong lines of communication with teachers, parents, students, and stakeholders.	
13. Recruits, hires, and retains teachers whose values and instructional frameworks align with the school's mission.	

**TENNESSEE STATE BOARD OF EDUCATION**

**LEARNING CENTERED LEADERSHIP POLICY**

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**Standard C: Instructional Leadership and Assessment**  
**An effective instructional leader facilitates instructional practices that are based on assessment data and continually improve student learning.**

<u>INDICATOR</u>	<u>E-LOG</u>
1. Leads a systematic process of student assessment and program evaluation using qualitative and quantitative data.	
2. Leads the professional learning community in analyzing and improving curriculum and instruction.	
3. Ensures access to a rigorous curriculum and the supports necessary for all students to meet high expectations.	
4. Recognizes literacy and numeracy are essential for learning and ensures they are embedded in all subject areas.	
5. Uses research based best practice in the development, design, monitoring and implementation of curriculum, instruction, and assessment.	
6. Monitors and evaluates the school's curricular program for rigor.	
7. Provides teachers and parents with assessment results on a regular basis.	
8. Develops and implements a system to regularly communicate student academic progress and assessment results to parents, students, and teachers.	

**Standard D: Professional Growth**  
**An effective instructional leader improves student learning and achievement by developing and sustaining high quality professional development.**

<u>INDICATOR</u>	<u>E-LOG</u>
1. Systematically supervises and evaluates faculty and staff.	
2. Promotes, facilitates, and evaluates professional development.	
3. Models continuous learning and engages in personal professional development.	
4. Provides leadership opportunities for the professional learning community and mentors aspiring leaders.	
5. Works in collaboration with the school community to plan and implement high quality professional development with the school's improvement plan to impact student learning.	
6. Provides faculty and staff with the resources necessary for the successful execution of their jobs.	

**Standard E: Management of the School**  
**An effective instructional leader facilitates learning and teaching through the effective use of resources.**

<u>INDICATOR</u>	<u>E-LOG</u>
1. Establishes a set of standard operating procedures and routines that are understood and followed by all staff.	

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**LEARNING CENTERED LEADERSHIP POLICY**

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<b>Standard E: Management of the School</b>	
<b>An effective instructional leader facilitates learning and teaching through the effective use of resources.</b>	
<b>INDICATOR</b>	<b>E-LOG</b>
2. Focuses daily operation on the academic achievement of all students.	
3. Gathers and employs resources to achieve the school's mission.	
4. Prepares and regularly monitors an annual operational budget that aligns with the school's improvement plan.	
5. Mobilizes community resources to support the school's mission.	
6. Identifies potential problems and is strategic in planning proactive responses.	
7. Implements a shared understanding of resource management based upon equity, integrity, fairness, and ethical conduct.	
8. Develops a comprehensive strategy for positive community and media relations.	
<b>Standard F: Ethics</b>	
<b>An effective instructional leader facilitates continuous improvement in student achievement through processes that meet the highest ethical standards and promote advocacy including political action when appropriate.</b>	
<b>INDICATOR</b>	<b>E-LOG</b>
1. Performs all professional responsibilities with integrity and fairness.	
2. Models and adheres to a professional code of ethics and values.	
3. Makes decisions within an ethical context and respecting the dignity of all.	
4. Advocates educational, social or political change when necessary to improve learning for students.	
5. Makes decisions that are in the best interests of students aligned with the vision of the school.	
6. Considers legal, moral and ethical implications when making decisions.	
7. Acts in accordance with federal and state constitutional provisions, statutory standards and regulatory applications.	
<b>Standard G: Diversity</b>	
<b>An effective instructional leader responds to and influences the larger personal, political, social, economic, legal and cultural context in the classroom, school, and the local community while addressing diverse student needs to ensure the success of all students.</b>	
<b>INDICATOR</b>	<b>E-LOG</b>
1. Develops and implements an appropriate diversity policy involving the school community and stakeholders which encompasses program planning and assessment efforts.	

**TENNESSEE STATE BOARD OF EDUCATION**

**LEARNING CENTERED LEADERSHIP POLICY**

**5.101**

**Standard G: Diversity**

**An effective instructional leader responds to and influences the larger personal, political, social, economic, legal and cultural context in the classroom, school, and the local community while addressing diverse student needs to ensure the success of all students.**

<b>INDICATOR</b>	<b>E-LOG</b>
2. Recruits, hires, and retains a diverse staff.	
3. Interacts effectively with diverse individuals and groups using a variety of interpersonal skills in any given situation.	
4. Recognizes and addresses cultural, learning and personal differences as a basis for academic decision-making.	
5. Leads the faculty in engaging families/parents in the education of their children.	

## Tennessee Race to the Top – Appendix D-1-4

### ALTERNATIVE ROUTE PROVIDERS IN TENNESSEE

Tennessee has five programs for teachers and one program for school leaders that operate as alternative providers. Before entering any of the programs for teachers, applicants must have the following:

- Bachelor’s degree from an accredited institution of higher education
- Minimum grade-point average as required by each program
- Teaching area competence: either appropriate academic background (major/minor) OR passing score on the Praxis II specialty area tests. (The single program in Tennessee for school leaders, New Leaders for New Schools, requires a minimum of three years of full-time teaching experience AND passage of the state test for the Beginning Administrator License.)

Table 1 displays the elements of each alternative provider in Tennessee.

**Table 1: Tennessee’s Alternative Route Providers**

Provider	Elements	# of successful completers in 2008-2009
<b>Non-Education Majors at Institutions of Higher Education (teachers)</b>	<ul style="list-style-type: none"> <li>• Open to individuals with bachelor’s degree who are interested in faster route to teaching and who first secure a position in a school district.</li> <li>• Maximum of 18 hours of education course work</li> <li>• 100 hours of mentoring in the first year; 50 hours each subsequent year</li> <li>• 31 out of 39 institutions of higher education participate, in conjunction with 128 school districts</li> </ul>	1,187
<b>Teach Tennessee (teachers)</b>	<ul style="list-style-type: none"> <li>• State initiative that recruits high-achieving mid-career professionals with five or more years of relevant, full-time work and experience in the subject area</li> <li>• Candidates receive support and guidance from regional program director during the first two years of teaching</li> <li>• Requires pre-service training of 12 days and 40 (clock) hours of professional development during the first year. The</li> </ul>	35

	<p>summer following the first year of teaching, they begin working toward completing their individualized program of study which includes a minimum of 40 (clock) hours of professional development</p> <ul style="list-style-type: none"> <li>• 35 selected from 90 applicants.</li> </ul>	
<b>Transition to Teaching (teachers)</b>	<ul style="list-style-type: none"> <li>• Federally funded program to attract mid-career professionals to fill vacancies in critical shortage areas</li> <li>• Pre-service requirement of 10 hours in a school observing and tutoring</li> <li>• Maximum of 15 hours of education coursework delivered online by the University of Tennessee</li> <li>• Required weekly mentoring sessions provided by trained, experienced teachers the first year, and monthly during the second year</li> <li>• 49 selected from 128 applicants</li> </ul>	33
<b>Teach For America (teachers)</b>	<ul style="list-style-type: none"> <li>• National non-profit that recruits, trains, and mentors outstanding recent college graduates.</li> <li>• Exists in Memphis City Schools, expanded to Nashville in 2008-09, bringing 50 teachers from 3,715 selected nationwide from nearly 25,000 applicants</li> <li>• Rigorous 5-week summer training institute.</li> <li>• Summer school teaching under supervision of experienced teachers</li> <li>• 100 hours of mentoring required</li> </ul>	45
<b>The New Teacher Project (teachers)</b>	<ul style="list-style-type: none"> <li>• National non-profit that recruits, trains, and places outstanding individuals for high-needs students</li> <li>• Exists in Memphis City Schools, expanded to Nashville in 2008-09 bringing 95 teachers out of 1,590 applicants</li> <li>• Pre-service requirement of 5-6 week summer training institute and 4-5 weeks of practice teaching coordinated with LEA partner</li> <li>• Appropriate field experience during the</li> </ul>	35

	summer, coordinated with LEA <ul style="list-style-type: none"> <li>• 41 selected from 890 applicants</li> <li>• 100 hours of mentoring required the first year, and 50 hours the second year</li> </ul>	
<b>New Leaders for New Schools (principals)</b>	<ul style="list-style-type: none"> <li>• National non-profit that recruits and trains passionate and results-focused individuals to lead urban public schools</li> <li>• Exists in Memphis City Schools, plans to expand</li> <li>• Four-week training institute as well as yearlong residency with a mentor principal as a member of the school's leadership team</li> <li>• Completion of three projects as part of residency</li> <li>• 12 selected from 141 applicants</li> <li>• Each New Leader resident commits six years to the New Leaders program city – one residency year and five years in a school leadership position</li> </ul>	11
<b>Total number of individuals certified through alternative routes</b>	Teachers	1,300
	Principals	11
<b>Total number of individuals certified through alternative routes</b>	Teachers	3,799
	Principals	908

In addition to the above pathways for teacher training programs, the State Board of Education has approved another path to draw talented professionals to the classroom. This mechanism is called the Adjunct License. This license is awarded to the person who desires to teach part-time in a high-demand subject area when no licensed teacher can be placed into that position. These individuals are trained through the “Distinguished Professionals” program – an asynchronous online program developed in association with the University of Tennessee-Knoxville – and are given intense mentoring to ensure success. To date, the program has provided engineers and scientists to fill math and physics openings, but it has expanded over time to include other areas such as foreign language and other hard to staff subjects. Presently, over 100 Tennessee “Distinguished Professionals” are given release time from the full-time jobs

in industry or business in order to work daily in both urban and rural classrooms in East Tennessee.

Finally, through this application, the state hopes to replicate the successful “UTeach” program at two additional Tennessee universities in order to expedite highly talented professionals’ pathways into high-need classrooms and schools. (It will begin at two universities this fall.) More information about UTeach’s role in the state’ strategy for preparing teachers to fill subject-area shortages is in Section D(1)(iii).

### **ROLE OF HIGHER EDUCATION IN K-12 HUMAN CAPITAL NEEDS**

The Tennessee Higher Education Commission (THEC) – which oversees the state’s nine public universities and 13 community colleges – is a major partner in monitoring, evaluating, and identifying areas of teacher and principal shortages, and in preparing teachers and principals to fill those areas. The vast majority of teachers in Tennessee come from Tennessee institutions of higher education. As a result, part of THEC’s agenda is to help the state meet its human capital needs for K-12 schools. THEC has made filling those shortage areas a key part of its strategic plan – with ongoing core higher education funding tied to successful outcomes at its institutions.

THEC has three primary policy levers to help the state meet its human capital needs as revealed by the various supply/demand studies: the statewide Master Plan for Higher Education, the outcomes-based funding formula through which THEC ensures a fair and equitable distribution of state funds to postsecondary institutions, and the THEC Performance Funding Program, a well-established funding incentive to institutions to ensure quality and productivity.

- **State Master Plan for Higher Education:** The Master Plan will place a premium on production of bachelor’s degrees in fields leading to teacher certification, especially in STEM fields. The THEC Master Plan directs state goals for quality, access, and productivity and informs the strategic plans for the two systems of higher education, the Tennessee Board of Regents and the University of Tennessee.
- **State Institutional Funding Formula:** THEC is transitioning from an enrollment-based formula to an outcomes-based formula whereby institutions will receive funds based on outcomes on measures such as student year-to-year retention, persistence to graduation, degree production at the bachelor’s, master’s and doctoral levels, research productivity where appropriate, and other outcome metrics. The formula will also give more prominent attention to and weighting towards the Performance Funding program, which will include outcomes such as teacher and STEM production. Preliminary plans call for the formula model to be entirely outcome- and productivity-based, with a 3-5 year phase-in period. This means that institutions will receive state funding partially on how many teachers they graduate to fill high-needs areas that the state has identified.
- **Tennessee Higher Education Commission’s Performance Funding Program:** New Performance Funding measures are being put in place. One key measure of the new

Performance Funding standard is production of graduates in high need fields, including teachers. The Performance Funding measures serve, in large part, as the accountability piece for the Master Plan, thus THEC Performance Funding program is related to but not synonymous with the outcomes-based funding formula. At a minimum, \$30 million is distributed among institutions according to their Performance Funding scores, with over \$500 million incentive funding awarded to institutions over years. In addition to rewards for meeting quality indicators, these funds will now also be disbursed in accordance with an institution's ability to produce teachers in subject areas that meet the State's needs. The teacher supply/demand data will be matched against institutional productivity capacity and work in concert with the upcoming high-need fields supply/demand study to identify teacher placement needs.

## Tennessee Race to the Top – Appendix D-1-6

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### PROPOSAL TO EXPAND UTEACH

The UTeach program began at the University of Texas, Austin with the goal of increasing the number of mathematics and science teachers with a strong content knowledge. Since 1997, the program has gained national recognition and expanded throughout the country. UTeach programs recruit majors in math and science who simultaneously earn their math or science degree and teaching certification. Hallmarks of the program include an expedited route to licensure with graduates completing both degree requirements and licensure requirements in four years, early classroom exposure, and high placement and retention rates upon graduation:

- The UTeach program at the University of Texas, Austin certifies approximately 70 students to teach secondary math, science, or computer science yearly.
- 92% of UTeach graduates are immediately hired as math or science teachers.
- 82% of UTeach graduate hires are still teaching after five years, compared with fewer than 65% nationally (Schools and Staffing Survey, 2004).
- UTeach also increases the number of teachers in hard to staff schools with about 45% of UTeach graduates teaching in schools where 40% or more of students qualify for free or reduced-priced lunch.

The UTeach replication sites are being funded through a collaboration of the Tennessee Higher Education Commission and the Tennessee Department of Education. During the RFP process for the UTeach grants, four Tennessee institutions were selected to submit full applications for the grant and participate in the interview process. Because of the limited funding available, Middle Tennessee State University and the University of Tennessee, Knoxville were the only two eligible for funding. Through Race to the Top funds, the UTeach program would be replicated at the two additional institutions with the goal of significantly increasing the supply of math and science teachers statewide. Both the University of Tennessee, Chattanooga and the University of Memphis have completed the rigorous evaluation process and have laid the foundation for a successful replication of the UTeach program pending available funding.

Table 3 represents enrollment and graduate projections for the four UTeach sites recommended for funding. These numbers are based on production in the fifth year of implementation. These are conservative estimates as they do not represent a fully mature program. Also included are actual numbers from the University of Texas, Austin UTeach

program which represents a more accurate count of UTeach production once the program is fully mature. If all four UTeach programs were implemented, Tennessee would see an increase of over 100 additional secondary math and science teachers yearly – addressing a significant shortage identified in the teacher supply/demand study.

All four Tennessee institutions are ready to begin the planning year in January 2010. The two institutions funded through state allocations will begin in January 2010. If funding is available, the University of Memphis and the University of Tennessee, Chattanooga will be able to join the cohort of Tennessee institutions as late as March 2010 and remain on the same implementation schedule.

**Table 3: UTeach Replication in Tennessee**

	<b>Enrollment</b>	<b>Graduates</b>
<b>University of Texas, Austin</b>	500	70
<b>UTeach Replication Sites Currently Funded (Middle Tennessee State University and the University of Tennessee, Knoxville)</b>	450	50
<b>University of Memphis</b>	240	28
<b>University of Tennessee, Chattanooga</b>	224	24
<b>Total Production of 4 Tennessee UTeach Replication Sites</b>	<b>914</b>	<b>102 (as early as spring 2013)</b>

The interest in the UTeach program and other innovative programs is an indicator of higher education institutions’ eagerness to respond to needs within the state and transform current practices to better meet those needs. This will require a drastic reform in the manner in which math and science teachers are prepared at these schools – a conversation generated in part by the data analyzed in the teacher/supply demand study, as well as the new, more rigorous standards and assessments. For UTeach alone, more than 60 leaders in teacher preparation expressed an interest in replicating the program. Reforms included negotiating combined curriculum decisions between colleges of education and colleges of arts and sciences, rewriting general education requirements to fit within the four year time frame, adopting UTeach courses with fidelity, and allocating resources in a prescribed manner.

Higher education institutions understood the need for change, recognized a proven model of success, and responded by transforming current practices to meet long-term goals. Working together, alternative providers and Tennessee’s higher education partners comprise major parts

of the human capital strategy in Tennessee around providing high-quality pathways for aspiring teachers and leaders.

## **Approval of Teacher Education Programs And Professional Education Units in Tennessee**

Date Standards Adopted or Most Recent Revision: 1988

Date Institutions Must Submit To DOE: Current

Date Candidates Must Meet Standards: Current

### **I. Overview of General Requirements**

The Teacher Education Policy adopted by the Tennessee State Board of Education in January, 1988, calls for a multidimensional approach to the program approval process that includes the following requirements:

- successful completion of review of the teacher education unit using accreditation standards of the National Council for Accreditation of Teacher Education (NCATE);
- successful completion of review of specialty area programs using state licensure standards and guidelines;
- satisfactory performance by teacher candidates prior to licensure; and
- satisfactory performance by teacher education program graduates in performance evaluation systems designed to assess the performance of probationary and apprentice teachers.

In light of the above requirements, Tennessee sought and became an NCATE affiliated state in 1989. The State/NCATE partnership provides that Tennessee will conduct reviews of all teacher education institutions in a manner consistent and compatible with NCATE. All reviewed institutions are expected to address not only programs for teacher preparation, but all programs, initial and advanced, for all school personnel. The state expects all institutions to meet NCATE unit standards and guidelines for both initial and advanced programs.

According to the State/NCATE partnership agreement, the state assumes a primary role in stipulating standards and guidelines for specialty area programs. Curriculum frameworks reflecting the licensure standards adopted by the State Board of Education, since November, 1988, are in place at all institutions of higher education seeking state approval. State teams who are trained in the State Board's licensure standards and guidelines conduct reviews to insure licensure requirements are met.

If an institution is seeking first-time NCATE accreditation and first-time program approval, two separate teams conduct the review. One team is appointed by NCATE to address unit standards; the other team is appointed by the state to address state standards and guidelines for specialty area programs. For institutions seeking state approval only, an appropriately

composed single team is assigned to insure a thorough review of both NCATE standards for the unit and state standards for specialty area programs.

As Tennessee developed a new and comprehensive state policy and standards and guidelines in anticipation of becoming an NCATE partner state, a thorough analysis of current state unit standards and NCATE unit standards occurred, and a high degree of compatibility was found to exist between the two. Consequently, Tennessee relinquished its review of state unit standards in acceptance of NCATE unit standards, thereby eliminating duplication of effort.

In addition, Tennessee conducted an analysis comparing state specialty area standards and guidelines with NCATE approved Specialty Professional Association (SPA) standards. These findings also reflected a high degree of compatibility between the two but favored the state in terms of specific program knowledge and skills and guidelines responsive to the achievement of statewide goals and programs. Further, Tennessee is committed to on-site review of specialty areas in accordance with its established processes to assure quality teacher preparation programs.

All professional education programs must be offered by institutions of higher education that have received Southern Association of Colleges and Schools accreditation.

## **II. Guiding Principles**

### **A. Team Composition and Procedures**

1. Under the Tennessee/NCATE partnership, the unit review team uses NCATE standards and follows established NCATE procedures regarding the chair, membership, training, function, and size. This team is appointed by NCATE for institutions seeking NCATE accreditation and by the state for institutions not seeking NCATE accreditation. At least one staff member, appointed by the Office of Teacher Education and Accreditation, is assigned as site consultant and liaison to the site team(s) during the evaluation visit.
2. The state team for specialty area program review follows established state procedures using state standards and guidelines. These procedures parallel NCATE procedures.
3. State team members are appointed by the Office of Teacher Education and Accreditation from a cadre of state examiners, a pool of experienced professionals trained to serve on visitation teams. Team members have knowledge of both the state and NCATE processes and standards. Team membership is balanced to include representatives from public schools, institutions of higher education, and other groups.

4. The rationale for use of in-state team members to review specialty area programs is derived from the state's commitment to a knowledge and skill-based approach to the program approval process. The process is two-fold: a paper review process and an on-site review of specialty area programs using knowledge and skills that meet the unique requirements of state programs.
5. The team size varies as appropriate and adequate for the size of the institution in terms of the number, scope, and levels of programs submitted for approval.
6. A copy of prior program approval status for the unit and specialty area programs will be available to NCATE and state teams.
7. For first-time State/NCATE visits, the two teams vote separately. Information gathered by the state team is available to the NCATE team, and, in turn, the relevant information gathered by the NCATE team is available to the state team. For institutions seeking NCATE accreditation, the state accepts the unit review results from the nationally appointed NCATE team and NCATE Unit Approval Board.
8. A liaison is designated by the Director of the Office of Teacher Education and Accreditation to represent the State Department of Education for all visits. This individual provides technical assistance to the institution in preparation for the visit and works cooperatively with the institution and NCATE for NCATE accredited institutions in arranging for concurrent NCATE and state on-site visits. In addition, the assigned liaison person supports the work of the state team to include assistance in team orientation, the fact finding process, and final report preparation (editing only).

B. Relationships between NCATE and State Guidelines

1. The NCATE approved standards of SPAs were analyzed and are addressed within existing state licensure standards and induction guidelines. Tennessee will continue efforts to relate national professional guidelines to its standards and guidelines.

C. Approval

1. The Commissioner's Advisory Committee for Unit and Program Approval reviews the institutional report, rejoinder, state team report, the NCATE team report, and information pertaining to the performance of graduates. The committee recommends action relative to approval status to the Commissioner of Education who recommends final action to the State Board of Education.

2. Final approval action by the State Board of Education is transmitted by letter via the Commissioner of Education to the head of the institution of higher education.
  3. The letter indicates the action of the State Board of Education regarding approval status of all specialty area programs for NCATE institutions. For non-NCATE institutions, it indicates approval status for specialty area programs as well as approval status for the unit.
- D. State Policy Related to Graduates of Nationally Accredited Programs in Other States
1. The state policy regarding reciprocity is set forth in State Board of Education rule 0520-2-4-.01 (10).

### **III. Procedures For Evaluation of Teacher Preparation Programs**

#### **A. Official Communications**

1. The State Department of Education, Office of Teacher Education and Accreditation, is responsible for periodic communications with each institution of higher education to define and update the accreditation or approval status of the institution's teacher education unit and the program approval status of the specialty area programs offered by the institution.
2. Official communication is directed to the Dean, Director, or Chair of the teacher education unit with copies going to the President and to the Chief Academic Officer. It is the responsibility of the Dean, Director, or Chair of each teacher education unit to disseminate the information to the respective and appropriate administrative units of the institution: colleges, schools, departments, and offices.

#### **B. Review Processes: First-time and Continuing Program Approval**

1. The Office of Teacher Education and Accreditation conducts a preliminary paper review process by which the specific licensure requirements for each specialty area program are analyzed with respect to their adequacy and congruence with corresponding standards of the state. The Office selects, trains, and assigns individuals for this purpose from the State Department of Education's specialty area professional staff.
2. For institutions seeking accreditation by NCATE, the analysis of the program folios in NCATE approved specialty areas may be made by NCATE as part of the institutional report on

preconditions or the program paper review may be conducted by the state only.

3. For institutions seeking accreditation by NCATE, the analysis of the institutional report on preconditions is made by NCATE, except for those program areas for which there are no NCATE approved SPA standards.
4. Following the initial paper review by Department of Education area specialists, the institution receives a letter from the Office of Teacher Education and Accreditation extending conditional approval for the institution to proceed with implementation of the specialty area program until an on-site visit by a state team of examiners occurs. If the paper review indicates that the program is not in conformity with state licensure standards and guidelines, the institution receives a non-conditional approval letter and is encouraged to revise and re-submit the program.
5. Approved institutions which initiate new programs involving substantial and/or substantive changes during the interim between scheduled site visits are required to submit such programs for review to the Director of Teacher Education and Accreditation. A site visit is conducted by the state if needed, as determined after the initial paper review. If positively reviewed, such programs may be granted conditional approval for the period extending until the next scheduled team visit. Substantial and/or substantive changes include changes in purpose, programs, scope, location, ownership, level of operation and instructional delivery systems. Examples are development of new programs, significant changes in existing programs, and delivery of existing or new programs at off-campus sites. Substantial and/or substantive changes typically include those defined as such by the Commission on Colleges of the Southern Association of Colleges and Schools.
6. It is the policy of the State of Tennessee that programs offered off campus meet the same high standards included in the approval process for on-campus programs.
7. An annual report is required for continuing program approval. The report is sent to the Office of Teacher Education and Accreditation in accordance with a format common to NCATE/AACTE annual reports.

C. Appointment of the team

1. For institutions seeking first-time NCATE accreditation:
  - a. NCATE selects the unit team and the Office of Teacher Education and Accreditation selects and appoints a team

of state examiners appropriate to the number and type of specialty area programs offered by the institution.

- b. The two teams conduct the visit concurrently and cooperatively with each using information derived from the other. The NCATE team's focus is on unit standards; the state team's focus is on specialty area programs.
  - c. The NCATE team has a chair and a co-chair appointed by NCATE. The state team chair and co-chair are appointed by the Office of Teacher Education and Accreditation.
  - d. The size of the NCATE team is five to six, depending upon the institution's program scope. The size of the state team depends upon the size of the institution and number of programs to be evaluated.
2. For non-NCATE institutions:
- a. The Office of Teacher Education and Accreditation appoints the team, composed of state examiners who review both the unit and the specialty area programs, and appoints a chair and co-chair.
  - b. The size of the state team is determined by institutional size and program scope. Typically, a team for unit and program review ranges from five to seven members.
3. State Examiners
- a. State examiners are recommended by the Office of Teacher Education and Accreditation and appointed by the Commissioner of Education to include members representing the following constituencies. Proportionate representation among these groups is maintained:
    - (1) Tennessee Education Association
    - (2) Tennessee Association for Colleges of Teacher Education
    - (3) Other groups, to include:
      - School administrators  
(superintendents, supervisors and principals)
      - School board members
      - Specialty group members (higher education faculty and K-12 practitioners in the specialty areas)
      - Others: Appropriate state agency personnel
  - b. Appointments are for a three year term. Members may serve one additional consecutive term if renominated and reappointed in the manner prescribed for membership.

Individuals previously appointed may not be reappointed earlier than two years after having completed their last eligible term. Vacancies may be filled as they occur in a manner consistent with the provisions for initial appointments.

- c. Additional members may be appointed by the Commissioner of Education upon recommendations of the Office of Teacher Education and Accreditation. Proportionate representatives among the three groups will be maintained.
- d. As part of the application/nomination process for service as a state examiner, a letter must be sent by the individual's employer indicating a willingness to permit the individual to be released from the work assignment to participate in up to two site visits a year without penalty.
- e. All state examiners and staff members of the Tennessee Department of Education responsible for teacher education and approval of teacher education programs are trained by NCATE staff or trained under NCATE staff supervision with regard to unit approval standards and procedures.

D. First-time On Campus Visit

- 1. At least one staff member designated by the Office of Teacher Education and Accreditation is assigned as support staff and liaison during the visits.
- 2. For state-only visits, the team reviews self-study materials prepared by the institution of higher education and conducts an on-campus evaluation to determine whether standards have been met for the approval of the institution's teacher education unit and specialty area programs. The team reviews the materials prepared in the preliminary paper review process.
- 3. For concurrent State/NCATE visits, NCATE team members are responsible for investigations of unit credibility and state examiners are responsible for investigations of specialty area programs and other special conditions mandated by the state. Each team votes separately, but freely utilizes pertinent information and findings from the other team.
- 4. The State Department of Education assumes responsibility for expenses of team members who are employees of the State Department of Education. Expenses for all other team members, whether state appointed team members or NCATE team members, are paid by the institution being visited. In the case of NCATE appointed teams, reimbursement is made by the

institution being visited in a manner consistent with NCATE guidelines.

5. The Office of Teacher Education and Accreditation is responsible for maintaining adequate written communications regarding all visit schedules.

E. Preparation of the Evaluation Report

1. For state-only visits, the staff liaison person designated by the Office of Teacher Education and Accreditation collects written evaluations from each team member. The draft report is typed and edited by the Office of Teacher Education and Accreditation in collaboration with the team chair. The final report of the evaluation team is submitted to the institution by the Director, Office of Teacher Education and Accreditation within 40-50 days of the conclusion of the on-site visit.
2. For State/NCATE visits, the NCATE report is compiled by the team chair and sent to NCATE and the Office of Teacher Education and Accreditation. The state report is typed and edited by the Office of Teacher Education and Accreditation and sent to the institution within 40-50 days. NCATE sends a copy of its report to the Office of Teacher Education and Accreditation and the institution within 30 days of the conclusion of the on-campus visit.

F. Institutional Response

1. For state-only visits, the institution is expected to provide a written response to the team report within 30 days of receipt of the report. The response should address the NCATE standards section related to unit accreditation and the specialty area program approval standards section. The report is sent to the Office of Teacher Education and Accreditation.
2. For State/NCATE visits, institutions send their written responses to NCATE standards to NCATE and the responses to state program approval standards to the Office of Teacher Education and Accreditation within 30 days of receipt of the report.

G. Official Action by the State Board of Education

1. The Director of the Office of Teacher Education and Accreditation forwards to the Commissioner's Advisory Committee for Unit and Program Approval the reports and materials constituting the institutional self study, the report of the evaluation team, and the institutional response to the evaluation report.

2. The Committee reviews these materials and prepares recommendations for consideration by the Commissioner of Education. The Committee makes one of three recommendations: full approval, approval with stipulations, or denial of approval.
3. For institutions participating in national accreditation, the Committee accepts the NCATE decision with respect to the institutional unit for teacher education, but makes its own recommendations about the specialty area programs offered by the institution.
4. Final determination regarding approval of the teacher education unit and the specialty area programs is recommended by the Commissioner of Education and communicated by the Commissioner or designee to the State Board of Education.
5. The State Board of Education takes formal action upon the Commissioner's recommendation regarding approval status.

#### H. Consequences of Official Action by the State Board of Education

1. For all institutions, program approval is issued in one of the following ways:
  - a. Full approval of first-time or continuing approval is unequivocal, but may be accompanied by statements of weakness. All institutions must report annually data required by the Department of Education and the report will address progress on weaknesses cited in the action letter. For NCATE accredited institutions, this progress is reviewed by NCATE's Unit Accreditation Board three years after the visit to determine the viability of full accreditation status. For non-NCATE institutions, this progress is reviewed by the Commissioner's Advisory Committee for Unit and Program Approval.
  - b. Approval with stipulations for first-time or continuing approval specifies critical deficiencies that must be addressed by the institution prior to the granting of full approval along with a time frame for overcoming these critical deficiencies. Full approval may be granted if the identified critical deficiencies are corrected within the stipulated timeline. NCATE or the state (for non-NCATE institutions) specifies the period of time in which the institution must correct the critical deficiencies identified in the action letter. If the critical deficiencies are not corrected within the specified timeline, the institution's approval is revoked. For NCATE accredited institutions, the period during which an institution is accredited with

stipulations is noted in the NCATE Annual List of Accredited Institutions.

- c. Denial of approval prohibits first-time approval of the professional education unit.
  - d. Revocation of approval terminates the current approval.
2. State approval with stipulations may be extended for no more than three years. If return visits are required, these will be at the institution's expense. An initial twelve-month extension may be granted for an additional year at a time if sufficient progress has been made during the initial extension to merit such additional extension, provided the extension does not exceed the three-year period. Following a visit occurring at the end of a three-year period of extension, there are two options: full approval or denial of approval. The Commissioner's Advisory Committee for Unit and Program Approval makes a recommendation to the Commissioner of Education, who makes a recommendation to the State Board of Education. If approval is denied, candidates need to be alerted as early as possible. If approval is denied, the following will occur:
- a. State approval for all licensure programs will be withdrawn.
  - b. No additional students may be admitted effective immediately.
  - c. The institution must inform candidates that only those who successfully complete their licensure programs within six calendar months immediately following denial of approval will receive licensure.
  - d. All other candidates seeking Tennessee licensure or rank changes must transfer to an approved program at another institution in order to receive such.
  - e. An institution may reapply for first-time approval after a period of at least three years.
3. For institutions seeking state approval only, if the State Board of Education has approved a recommendation to deny approval, the institution receives a notice of denial that provides one year to correct deficiencies. Candidates who satisfactorily complete their programs of study during the twelve months covered by the notice of denial receive the appropriate licensure/rank upon the institution's recommendation. Before the end of the twelve months, staff of the Tennessee Department of Education conduct a site visit.

4. In the event an institution seeking NCATE accreditation receives negative team findings on either or both national accreditation standards and state program standards, the State Board of Education may extend approval for one year if there are substantial reasons for doing so. After one year, the state sends in a team to determine the progress made toward removing the stated inadequacies. No more than two additional one year extensions may be granted, after which state approval is withdrawn.

I. Public Disclosure

After all unit and specialty area program approval decisions have become final, the Office of Teacher Education and Accreditation provides an appropriate means of public disclosure which includes all essential information relative to the unit and specialty area programs including standards not met, strengths and weaknesses, dates of approval or denial, and specific listings of approved specialty area programs. In any instance in which an institution is denied full approval, notification by the institution must be provided to candidates as soon as possible.

J. Review Process

The recommendations for unit or program approval from the Commissioner of Education are sent to the institution at least 45 days prior to a regularly scheduled meeting of the Board. The State Department of Education also sends the recommendation and a complete set of the documentation and findings upon which the recommendation is based to the State Board of Education at least 30 days prior to the Board's regularly scheduled meeting.

An institution may submit in writing to the executive director of the State Board of Education a request for review of a recommendation for denial of unit or program approval. A request for review must include the specific reasons and full documentation. The request must be received at least 30 days prior to the regularly scheduled Board meeting at which the recommendation is to be considered.

A request for review of a recommendation of the Commissioner of Education for denial of unit and program approval may be made only on the grounds that prescribed standards were disregarded or stated procedures not followed. The institution will have an opportunity to appear and present its request at the regularly scheduled meeting of the State Board of Education at which the recommendation is considered. The Board will take action on the recommendation at that meeting.

K. State Department of Education Follow Up and Continuing Approval

1. The follow up procedures for continuing state approval and continuing NCATE accreditation will be closely coordinated. After an institution has achieved approval under the new regulations, periodic on-site reviews, annual reports, and updates of prior institutional reports and program descriptions will provide the basis for continuing state approval.
2. The institutions submit an annual report to the Office of Teacher Education and Accreditation staff for use in determining the continuing status of all teacher education programs. This annual report contains information parallel to that provided to AACTE and NCATE with an addendum providing state specific data. Particular attention is given to insure the following information is provided:
  - a. recruitment, graduation and placement rates in teacher education including minority teacher candidates;
  - b. academic measures of teacher education graduates, including GPA and test scores;
  - c. school system feedback on the performance of graduates during probationary and apprentice years using results from local evaluations;
  - d. feedback from graduates using a common instrument; and
  - e. faculty involvement in schools.
3. Three years after an on-site visit, a review of an institution's data bank records is conducted. The review of the unit is conducted by NCATE for NCATE accredited institutions with a copy of the review report sent to the Office of Teacher Education and Accreditation. For state approved institutions (non-NCATE), the review of the unit is conducted by the Office of Teacher Education and Accreditation staff.
4. These reviews of data bank records provide evidence necessary to determine continuing program approval. If continuing approval is determined to be questionable, the Office of Teacher Education and Accreditation staff will visit the institution to determine whether a full program approval visit should take place, or whether a recommendation for continuing approval with stipulations should be made to the State Board of Education.

L. Continuing Approval

Seven years after an institution receives first-time program approval, the institution is reviewed for continuing approval.

1. NCATE Accredited Institutions.

- a. Team. Institutions seeking continuing accreditation by NCATE are visited by one joint state/NCATE team in which the NCATE Board of Examiners members, together with the State Board of Examiners members, decide whether NCATE's unit standards are met and respond to specific state requirements as determined by the state agency.
  - (i) NCATE and state team members participate in a training session on NCATE standards and procedures. State team members are trained regarding state requirements. NCATE team members participate in an orientation session regarding state requirements.
  - (ii) Teams may be smaller in size than teams selected for first-time program approval visits. The number of state members on the joint team will be at least one less than the number of NCATE's Board of Examiners members.
- b. Standards. NCATE standards are applied to the professional education unit and state standards are applied to specific program areas.
  - (i) Institutions are not required to prepare program curriculum folios which respond to the NCATE-SPA standards, but may do so if they wish national recognition of their programs. A program that is approved by the national specialty organization will be nationally recognized. (Also, if the state's program standards have been approved by the relevant SPA, the program will be nationally recognized.)
  - (ii) In addition to examining the overall health of the unit, the state members of the team examine new licensure programs, programs that have been substantially revised since the previous approval visit, weaknesses identified in a previous approval visit, and the institution's response to any changes in state requirements. The NCATE team members do not vote on individual licensure programs.
- c. Institutional Report. Institutions prepare one report in the format prescribed by NCATE.

- (i) The report includes a response to state requirements for any new licensure programs that have been implemented and programs that have been substantially revised since the previous approval visit.
- (ii) The report includes a response to state requirements that have changed since the previous approval visit.

## 2. State Approved Institutions

- a. Team. Institutions which do not seek NCATE accreditation are visited by a state team in which the State Board of Examiners members decide whether NCATE's unit standards are met and respond to specific state requirements.
  - (i) State team members are trained regarding NCATE standards and procedures and state requirements.
  - (ii) Teams may be smaller in size than teams selected for first-time program approval visits.
- b. Standards. NCATE standards are applied to the professional education unit and state standards are applied to specific program areas.
  - (i) In addition to examining the unit, state team members examine new licensure programs, programs that have been substantially revised since the previous program approval visit, weaknesses identified in a previous approval visit, and the institution's response to any changes in state requirements.
- c. Institutional Report. Institutions prepare one report in the format prescribed by the Office of Teacher Education and Accreditation.
  - (i) The report will comply with NCATE guidelines for preparing a report that addresses the NCATE standards.
  - (ii) The report includes a response to state requirements for any new licensure programs that have been implemented and programs that have been substantially revised since the previous approval visit.
  - (iii) The report includes a response to state requirements that have changed since the previous approval visit.

#### **IV. Preparation Guidelines For Institutions of Higher Education Seeking Accreditation/Program Approval**

##### **A. Advance Planning**

Both the teacher education governance unit of the institution and the State Department of Education Office of Teacher Education and Accreditation are responsible for regular communication and liaison with respect to the regulations and procedures relating to teacher preparation. The teacher education unit reports progress and status by means of the annual report.

##### **B. Pre-conditions for Unit Accreditation**

Eighteen months prior to the scheduled campus visit, the teacher education institution submits information documenting fulfillment of preconditions for accreditation of the unit to NCATE.

##### **C. Standards for Unit Accreditation or State Approval**

1. Four to eight weeks prior to the scheduled campus visit of the evaluation team, the institution of higher education prepares and submits a written narrative (Institutional Report) that shows how the institution is meeting the NCATE standards, specific state standards, and state specialty area program requirements.
2. If courses or programs are offered in off-campus settings, faculty, facilities, resources, and requirements must be similar to programs offered on-campus. The institution should provide the same evidence of quality to show that standards are met in off-campus arrangements.

##### **D. Teacher Preparation Program Descriptions**

1. Prior to the scheduled on-campus evaluation visit, the institution of higher education prepares and submits to the Office of Teacher Education and Accreditation, for each conditionally approved specialty area program for which the institution of higher education is seeking approval, the following:
  - a. a concise description of the program indicating how any specific guidelines are met in the curriculum
  - b. a matrix that correlates the standards and guidelines of the state with the required courses and experiences in the program
  - c. a program of study listing the course work and number of hours for each course in the general education core, the professional education core, and the major

- d. brief course descriptions for all course work listed on the matrix.

E. Assembly of Records and Files for the Evaluation Team

The institution of higher education assembles for the team the evidence which supplement the institutional report and which may serve as further documentation.

F. Accommodations for the Evaluation Team

The institution of higher education provides a suitable workroom for the exclusive use of the team for the days and evenings of the visit in accordance with NCATE Guidelines.

G. The Visit

1. The on-campus visit normally extends from Sunday afternoon through Wednesday noon. The template for the NCATE visit is adhered to for both State/NCATE and state-only visits. Reasonable adaptations are made, as needed, to incorporate the state program review process within the template. The Office of Teacher Education and Accreditation liaison person, usually on Sunday afternoon, reviews the Tennessee standards to orient the NCATE team members on a State/NCATE institution visit.
2. The teams also visit off-campus sites where the institution regularly offers courses and programs. If additional time is required for visiting off-campus sites, the team chairs, the institution, and the Office of Teacher Education and Accreditation will negotiate special arrangements.
3. The on-site evaluation process ends with an informal exit report around noon on Wednesday. This report is made by the team chairs and co-chairs to the head of the unit and NCATE coordinator. Since the institution will respond in writing to the team's report, there is no discussion at the time of the completion of the visit.

**V. Commissioner's Advisory Committee For Unit And Program Approval**

A. The Commissioner's Advisory Committee for Unit and Program Approval is a committee of the State Department of Education appointed by the Commissioner. At least seven members representing parity among the following three categories are placed on this Committee:

1. Tennessee Education Association
2. Tennessee Association for Colleges of Teacher Education
3. Other groups, to include:  
School administrators (superintendents, supervisors and principals)

School board members  
Specialty group members (higher education faculty and K-12  
practitioners in the specialty areas)  
Others: Appropriate state agency personnel

- B. Appointments are for a period of three years. Members may serve one additional consecutive term if renominated and reappointed in the manner described for membership. Individuals may be appointed to the board for additional terms only after a lapse in membership of two years following the date they last served on the Committee. Vacancies will be filled as they occur in a manner consistent with provisions for initial appointment.
- C. All members of the Committee will be trained by NCATE or trained under NCATE supervision.
- D. The Commissioner's Advisory Committee for Unit and Program Approval, in consultation with the State Department of Education, will establish a schedule of operations whereby the work flow can be handled expeditiously and with due consideration of the meeting schedule of the State Board of Education. The Director of the Office of Teacher Education and Accreditation will insure there is adequate staff support for the committee.

## Tennessee Value-Added Assessment System

The Tennessee Value-Added Assessment System (TVAAS) is based on SAS's Education Value-Added Assessment System (EVAAS) and the statistical methodology of Dr. William Sanders. TVAAS is a statistical method used to measure the influence of a district or school on the academic progress (growth) rates of individual students or groups of students from year-to-year. It is a statistical analysis of achievement data that reveals academic growth over time for students and groups of students, such as those in a grade level or in a school.

### TVAAS Website

The TVAAS website is a valuable tool that provides data in a user-friendly format. Numerous reports and data sets can be extracted from the TVAAS website.

Two options are available when using the TVAAS website:

- Public (no user name and password required)
- Restricted (user name and password required – available to All TN educators who have been set up as restricted site users)

The TVAAS Public Site can be accessed at the following url:

<http://www.state.tn.us/education/mdata.shtml>

TVAAS reports available on public site are the State Report, School Search, System Value Added Reports, Value Added Summary Reports, System Progress Reports, and School Value Added Reports.

The TVAAS Restricted Site can be accessed at the following url:

<https://tvaas.sas.com/evaas/signin.faces>

Note: All data (student, school, district) found in this document are examples and not actual data.

**TVAAS**  
System Login  
System and School Trend Analyses

TENNESSEE DEPARTMENT OF EDUCATION  
Dr. Tim Webb  
Acting Commissioner

**Reminder:**  
You are responsible for maintaining the confidentiality of the information provided in the TVAAS reports. Please close your browser window when you are through with your session to prevent unauthorized access to the reports.

Forgot your password?  
Having trouble using the system? Contact Us

User Name:   
Password:

Please note, passwords are case sensitive!

It is an individual system-level decision as to whether or not teachers within each system are granted access to the restricted site and to what level of access these teachers receive. The director of each school system is issued a username and password from TDOE and issue user access within their system at their discretion. Directors have access to an administrative function for use in assigning access and the site distributes usernames and passwords. TDOE does not have a list of passwords.

## Website Navigation



- Home – Click on “Home” to return to the home page for your system.
- Search – Click on “Search” to search for a school or student.
- My Account – Click on “My Account” to change password.
- Help – Click on “Help” to receive a tutorial for the screen you are viewing at that point or to view/print the complete resource guide.
- Contact Us – Click on “Contact Us” to ask a question or leave a comment. All questions/comments are sent to SAS.
- Logout – Be sure to logout when you are through with your session to prevent unauthorized access to reports.
- Back – Use “Back” button when maneuvering back within the site. Do not use the back button on your browser.
- Print – If printing is desired, click “Print” on the website. Then click print on the browser.

## Tabs

- Reports – Click on “Reports” Tab to see selection of different reports available.
- Systems – Select other systems to view system value added only, usage comes with rights.
- Tests – Select from all TCAP tests administered within your system/school.
- Subjects – (Dependent upon what test is selected) Click on “Subjects” to navigate the different subjects within the same report.

- Grade – (Dependent upon grade levels within a test) Click on “Grade” to navigate the different grades within the same report.
- Projections – (Only available when viewing an individual student record) Click on “Projections” to view a projection for an individual student.

## TVAAS Reports

The SAS® EVAAS® methodology used for this reporting uses up to five years of available test scores for individual students, merged longitudinally, to provide the best estimates of student achievement for a school or system. The TVAAS database includes scores from the following tests, for the years in which they have been administered:

- Tennessee Comprehensive Assessment Program (TCAP) achievement scores for students in grades three through eight for years 1991 through 2004
- TCAP CRT - Grades three through eight
- Writing Assessment - Eleventh grade
- PLAN®
- EXPLORE®
- ACT®
- EOC - Math Foundations, English I, Physical Science, US History. EOC Math Foundations and Physical Science were not administered in 2009.
- Gateway - Algebra I, Biology I, English II

Scores for all students, even those with partial data, are included in the analyses. Test scores for math, reading, language, science, and social studies are analyzed at the same time, improving the precision of the estimates.

## Growth Standard

In 2003, Tennessee set state growth standards for each tested academic subject based on the progress rate of the state’s students in 1998. Since that time, all TCAP Criterion Referenced Test (CRT) scale scores have been converted into state normal curve equivalents (NCEs) consistent with the base year. This conversion provided a way for the TVAAS analyses to measure achievement and academic gain for each system and each school against a consistent metric, expressed in 1998 State NCEs as students moved from grade to grade.

Over the past decade, the state has made some progress in raising academic achievement and this progress has been documented, not only in the TVAAS results, but also in the state’s student performance on NAEP and ACT. Over time, many systems and schools have regularly met the state’s growth standard.

However, in 2010, Tennessee is implementing new curriculum and assessment standards more reflective of national and international student performance in the 21st Century. To meet these standards, new expectations for student academic progress will be necessary. Therefore, in the delivery of the 2009 TVAAS results, the Tennessee Department of

Education has reset the growth standard to reflect the state's average student performance in 2009. These new standards should be viewed as the minimal expectation for student academic progress.

For the 2009 TVAAS analyses, prior scale scores from the 2005, 2006, 2007 and 2008 administrations, as well as those from 2009, were converted to state NCEs within the administration year. In subsequent years, the scale scores will be converted into state NCEs that reflect the performance of the state's students in 2009. This will allow the possibility for all schools to meet these new and higher standards in the future years.

The effect of systems, schools, and teachers on the rate of academic progress is estimated from the massive TVAAS database. Tennessee statute requires the public release of the system and school TVAAS reports and excludes the TVAAS teacher report from public release. Individual teachers and their appropriate administrators receive TVAAS teacher reports.

### Understandings

- Gain is the difference between the performance of a student or cohort of students in consecutive years.
- Growth Standard is the minimal acceptable measure of growth for experience from one year of schooling for each student.
- NCE (Normal Curve Equivalent) Score is a score that indicates position of a scaled score from any distribution on a reference scale so that comparisons between different scores from different years can be made.

### Elementary/Middle Value-Added Report

Estimated System Mean NCE Gain								
Grade:	3	4	5	6	7	8	Mean NCE Gain over Grades Relative to	
Growth Standard:		0.0	0.0	0.0	0.0	0.0		
State 3-Yr-Avg:		-0.3	-0.1	0.3	0.1	-0.4	Growth Standard	State
2007 Mean NCE Gain:		0.3 G	0.2	0.9 R	0.3	0.2	1.2	1.3
Std Error:		1.0	0.0	0.8	0.7	0.7	0.4	0.4
2008 Mean NCE Gain:		-0.2 Y	0.0	0.6 R	0.2	-2.2 R	0.6	0.7
Std Error:		1.0	0.9	0.8	0.7	0.7	0.4	0.4
2009 Mean NCE Gain:		-0.2 R	0.1	-1.0 R	0.2	0.2	0.3	-0.2
Std Error:		0.9	0.9	0.8	0.7	0.7	0.4	0.4
3-Yr-Avg NCE Gain:		-1.7 R	0.2	-1.2 R	0.2	0.4 G	0.6	0.6
Std Error:		0.5	0.5	0.5	0.4	0.4	0.2	0.2
Estimated System Mean NCE Scores								
Grade:	3	4	5	6	7	8		
New State Baseline:	50.0	50.0	50.0	50.0	50.0	50.0		
State 3-Yr-Avg:	49.9	48.4	48.3	47.9	48.1	47.9		
2006 Mean:	48.2	50.9	48.7	48.7	49.9	51.0		
2007 Mean:	48.4	48.6	53.5	47.8	51.4	51.4		
2008 Mean:	51.4	48.2	52.2	52.6	50.5	49.1		
2009 Mean:	45.8	46.2	50.6	50.4	53.9	52.5		

Each year, systems and schools add value to student achievement. Effective ones add at least a year's worth of growth in every grade. Some systems and schools in Tennessee are very effective, while others need to improve. The Tennessee Comprehensive Assessment Program (TCAP) provides estimates of student achievement in grades three through Tennessee, Appendix D-2-1

eight. The Tennessee Value Added Assessment System uses the results from the math, reading/language, science, and social studies tests to measure the progress students make from one grade to the next.

The Elementary/Middle Value-Added Report can be viewed for the system or school and contains information for grades levels in the school that tested using TCAP Achievement. Data for achievement is shown in NCE scores. NCE scores are represented on a scale of 1 – 99. This scale coincides with a percentile rank scale at 1, 50, and 99. Unlike percentile rank scores, the interval between scores is equal. NCE scores can be averaged to compare groups of students or schools.

The Elementary/Middle Value-Added Report can be read:

- Horizontally – how the school/system did for a particular year
- Vertically – how a particular grade level did for that current year
- Diagonally – tracks a group of students as they pass through a school/system

Mean NCE Gain over Grades measures the progress of a system's average student in grades four through eight. This value represents the average gain across grades compared to either the Growth Standard or the State 3-Year Average. 3-Year Average NCE Gain provides a robust estimate of how well the system or school helps students progress. Mean NCE Gain is shown for the current year and one for the three years prior. Standard Errors appear below each individual year and 3-year average. If the 3-Year Average is greater than zero, the average student in this system or school has achieved a year's worth of academic growth in a year. If the 3-Year Average is less than zero, the average student in the system or school has achieved less growth than expected.

The Growth Standard represents the minimum amount of progress you should expect students in a system or school to make in a grade. The State 3-Year Average provides an additional reference point. Mean Gains for the system or school appear immediately below these references. Standard Errors for each gain appear below each estimated mean. Compare the Growth Standard with the gain in an individual year or the average of three years to see how well the system or school helps students learn.

	G* - Estimated mean NCE gain above the growth standard by at least 1 standard error.
	G - Estimated mean NCE gain equal to or greater than growth standard but by less than 1 standard error.
	Y - Estimated mean NCE gain below the growth standard by 1 standard error or less.
	R - Estimated mean NCE gain more than 1 standard error below the growth standard but by 2 standard errors or less.
	R* - Estimated mean NCE gain below the growth standard by more than 2 standard errors.

- G\* (Dark Green): students made more than a year's worth of growth (gain is one or more standard errors above the Growth Standard). The system is highly effective with this grade.
- G (Light Green): students made at least a year's worth of growth (gain is equal to or above the Growth Standard, but by less than one standard error). The system is effective with this grade.

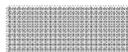
- Y (Yellow): students achieved somewhat less progress than expected (gain is below the Growth Standard by one standard error or less). The yellow shading provides a caution warning to the system.
- R (Light Red): students in this system fell behind their peers in this grade (gain is more than one but less than two standard errors below the Growth Standard). Light red is a stronger caution than yellow.
- R\* (Dark Red): students made little progress (gain is more than two standard errors below the Growth Standard). Dark Red is the most serious of all warnings.

Student achievement levels appear at the bottom of the report in the Estimated Mean NCE Scores section. The State Baseline is by definition set at 50.0. The State 3-Year Average shows the achievement level of students throughout Tennessee. Estimated Means for the system for specific years follow. Compare the estimated grade/year mean for a system or school to either the State Baseline or the State 3-Year Average. If the system or school mean is greater, the average student in the system or school is performing at a higher achievement level than the average student in the comparison group.

### High School Value-Added Report

Test	Year	N	Mean Student Score	Mean Score %ile	Mean Pred Score	Pred. Score %ile	System Effect	System Effect %ile	System vs State Avg
Biology I	2007	622	538.5	52	545.3	57	-6.7	18	Below
	2008	623	546.4	55	543.7	54	2.6	69	NDD
	2009	597	550.4	58	546.3	54	10	71	Above
	3-Yr-Avg	1842	545.0	55	545.1	55	-0.0	52	NDD

The High School Value-Added Report offers a conservative estimate of a school's effectiveness. This report compares each school to the average school in the state. This comparison is made for each subject tested in the given year and indicates how a school influences student progress in the subjects tested.

-  - Progress significantly Above the average school in the state.
-  - Progress Not Detectably Different from the average school in the state.
-  - Progress significantly Below the average school in the state.

Above, Below, or NDD (Not Detectably Different) indicate how much progress students at this school made compared to other schools in the state. The Above, Below, and NDD designations are based on the School Effect. This value is a conservative estimate of how effective the school has been in the selected test and subject.

- To be labeled Above, a school must have a School Effect significantly higher than the average.

- Likewise, to be labeled Below, a school must have a School Effect significantly lower than the average.
- Schools with School Effects within 2 standard errors of the state average are labeled NDD (Not Detectably Different from the average).

The School Effect is the difference between the Mean Student Score and the Mean Predicted Score. The Mean Predicted Score is what we would expect this school's students to score, on average, based on their past performance. The Mean Student Score indicates what the students actually achieved, on average, in the most recent test administration.

Compare the Mean Predicted Score to the Mean Student Score to see if the students' average scores are in line with what they were expected to score. If the Mean Student Score is significantly higher than the Mean Predicted Score, then students at this school scored higher than expected, indicating that the school is doing a good job on average with this subject.

School Effect is not always exactly the difference between the Mean Student Score and Mean Predicted Score. The reason is that the School Effect is estimated using a methodology that ensures greater statistical precision and reliability.

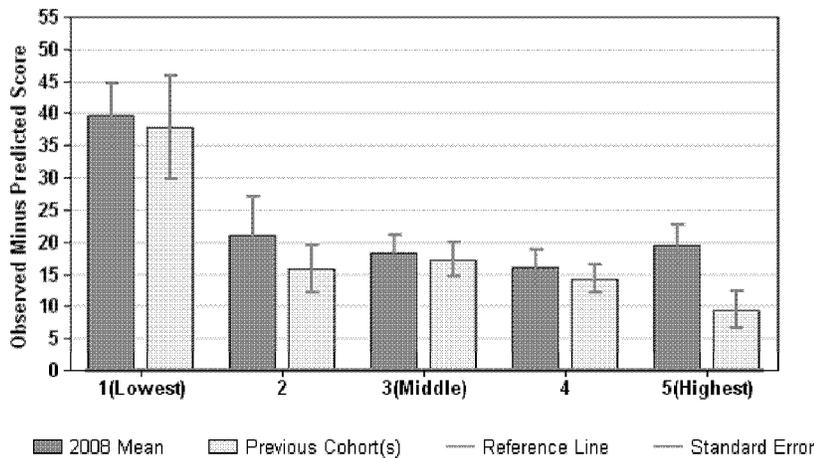
Among the NDD schools, there will be a range of School Effects. Some of the NDD schools will have very large positive or negative School Effects, while others will be closer to zero. Consider the size of this number in conjunction with local knowledge about the school when drawing conclusions about its effectiveness.

### Diagnostic Report

► Select Subgroups

Yes  No

2008 Diagnostic Report for  
Josephine High School in Gamma School District  
Gateway Algebra I



			Observed minus Predicted Score by Predicted Score Quintile				
			1 (Lowest)	2	3 (Middle)	4	5 (Highest)
Physical Science	2008	Mean	25.6	23.5	13.2	15.5	9.6
		Std Err	14.5	2.9	2.3	1.5	2.2
		Nr of Students	14	43	61	95	90
		% of Students	4.6	14.2	20.1	31.4	29.7
	Previous Cohort(s)	Mean	24.1	20.9	15.7	10.1	8.7
		Std Err	4.7	2.6	1.6	1.2	1.1
		Nr of Students	38	128	199	265	337
		% of Students	3.9	13.2	20.6	27.4	34.9

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 View Performance Diagnostics Report

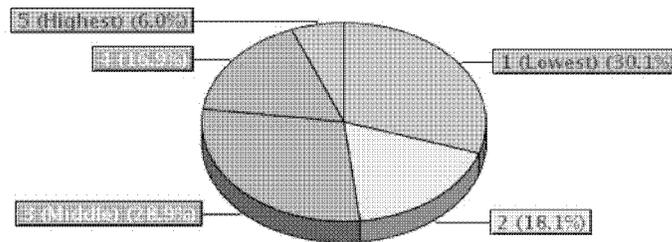
The Diagnostic Report is divided into 5 quintiles. This report disaggregates progress for students at different levels of previous achievement. A student becomes a member of a prior-achievement subgroup based on the average of his or her current and previous year scores. A single student score contains measurement error. Using the average of two years allows a more appropriate assignment. The chart at the top offers a visual representation of the data presented in the table below.

On the graph, the reference line in green represents the state growth standard or the amount of progress students in each subgroup must make in order to maintain their level of achievement from year to year. When Gain is reported in NCE scores, as it is here, the growth standard is 0.0. If a group is below the green line, the average student in the group fell below the state growth standard. Blue bars show the gain in the most recent year. Gold bars show the gain for up to three previous cohorts, when data are available. No bar is presented for subgroups with fewer than eight students. The red vertical line that intersects each bar indicates one standard error above and below the gain. The standard error allows the user to establish a confidence band around the estimate. Familiarity with the curricular standards in prior, current and future grades by subject is critical to success for all students. The goal should be "all students make excellent progress every year."

In the table, the observed gain for students in each achievement level, for the current year and for up to three previous cohorts, is displayed in the rows labeled Gain. This is a measure of the relative progress of the school's students in each Prior-Achievement Subgroup compared to the state's growth standard. Progress is shown in State NCE units, basis 2009. A large negative value indicates that students within a subgroup made less progress than the state growth standard. A large positive value indicates that students within a subgroup made more progress than the state growth standard. A value of approximately 0.0 indicates that students within a subgroup made about the same amount of progress as the state growth standard. The Nr of Students row shows the number of students in a subgroup. Some subgroups may contain more students than others because students are assigned to groups on a statewide basis. The assignment pattern shows

schools how their students are distributed compared to other students in the same grade across the state.

To see a pie chart of the data, click on the % of Students link in the table. The Pie Chart shows the percent of students in each subgroup and compares their progress to that of students in the average school in the state.



### Selecting Subgroups within Diagnostic Report

Select Subgroups  Yes  No

By selected race(s)

American Indian |  Asian |  Black |  Hispanic |  White |  Multi-Racial |  Other |  Unknown (Race)

By selected sex

Male |  Female |  Unknown (Sex)

By selected demographic(s)

Gifted |  Migrant |  English Language Learner |  Economically Disadvantaged |  Special Ed

You may choose to see this report for a subset of students based on race, sex, or other demographics. You may also select the specific students that you want to graph by creating a Student Pattern Report. To see a subset of students, click “Yes” at the top of the report. Then, check the boxes for all characteristics you would like to select. You may choose any combination of characteristics. If you choose Black and Hispanic, then the report will include only Black students and Hispanic students. If you also choose Male, then the report will include only Black and Hispanic boys. If you choose Black, Hispanic, Male, and Gifted, then the report will include only Black and Hispanic Males who are designated Gifted.

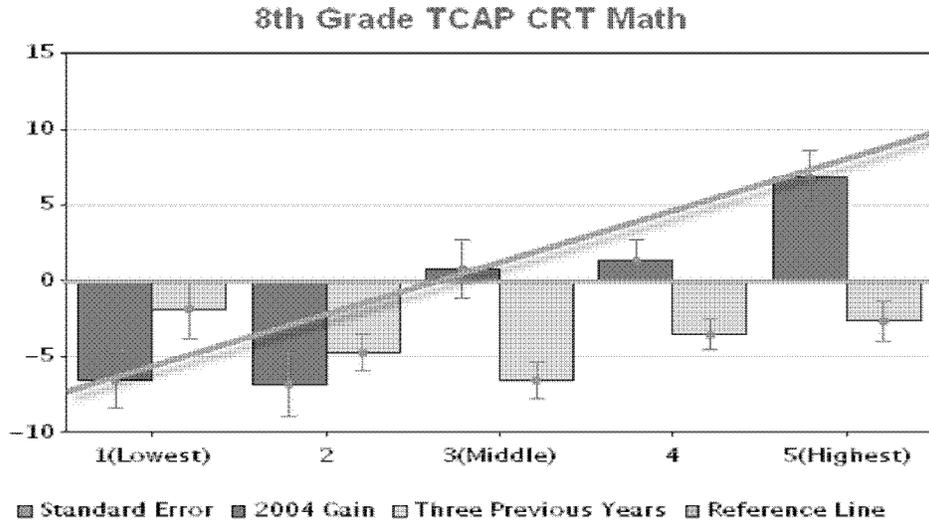
When you have made your selections for a subset of students, click the Submit button. To erase your selections and return to the default state, which includes all students, click the Reset button.

## Patterns of Growth within Diagnostic Report

The Diagnostic Report can be used to identify patterns or trends.

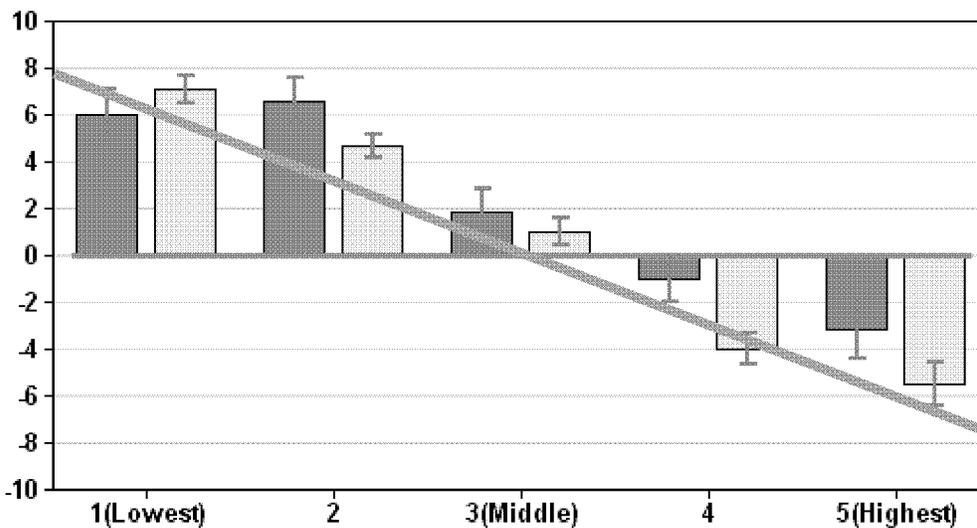
### Reverse Shed Pattern

In this pattern, low achieving students have not maintained a year's growth, while high performing students have made more than a year's growth. Narrow curricular focus can cause a reverse shed pattern like this report.



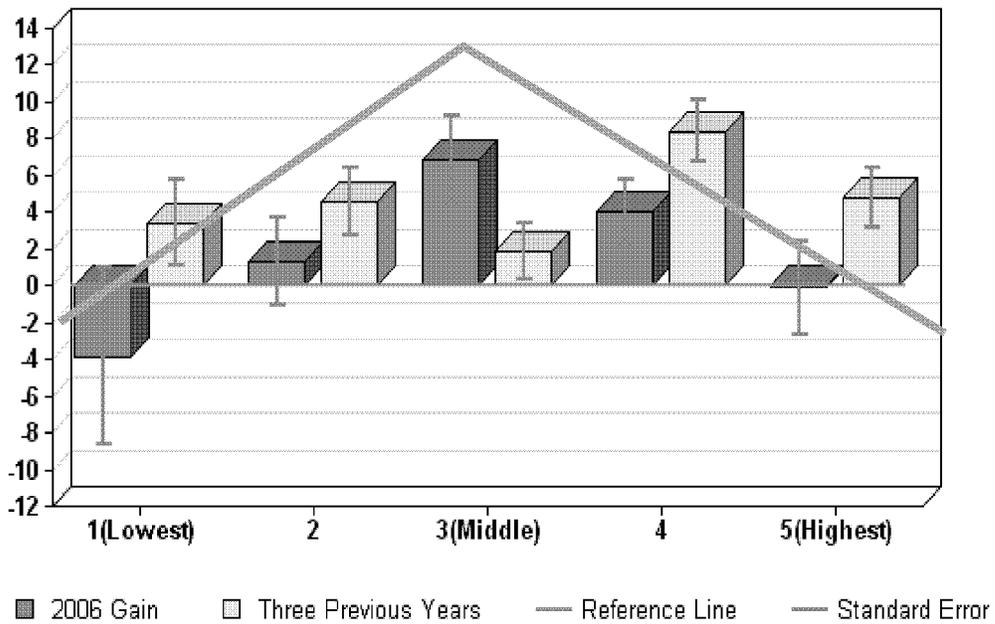
### Shed Pattern

In this pattern, high performing students have not maintained a year's growth, while low performing students have made more than a year's growth.



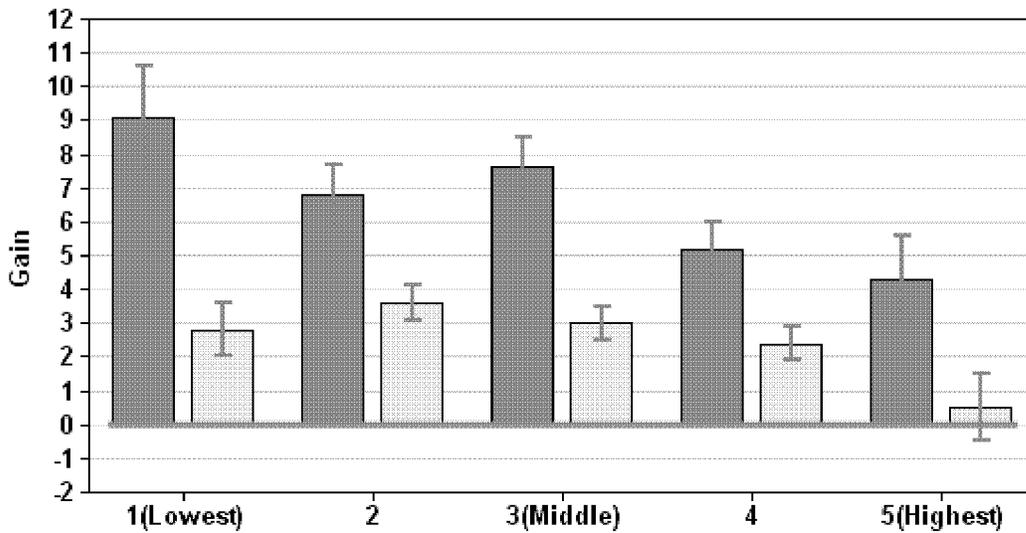
### Tent Pattern

In this pattern, high and low performing students are not maintaining a year's growth.

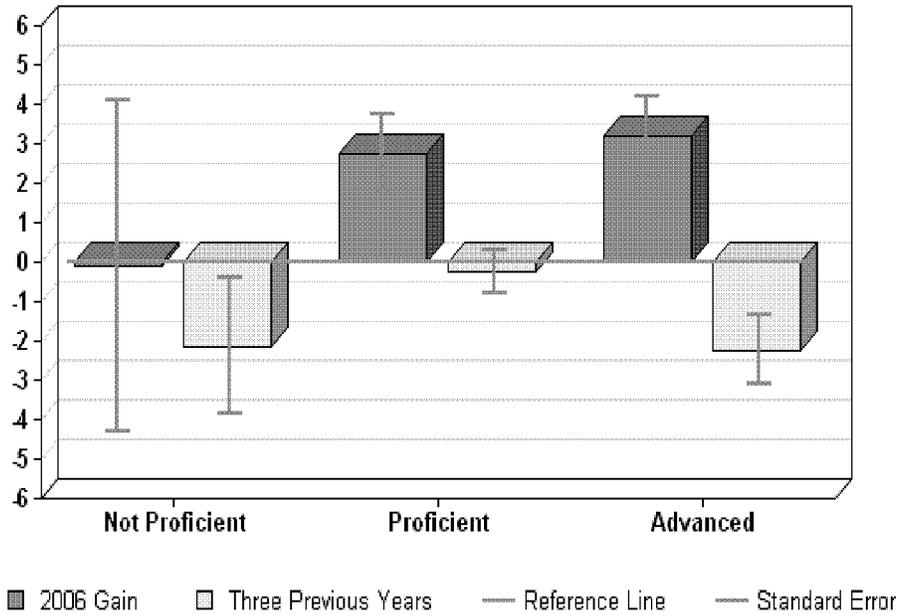


### Optimal Pattern

In this pattern, all students are making positive gains with the low achieving students making the most gain.



### Performance Diagnostic Report



The Performance Diagnostic Report can be used to identify patterns or trends of progress among students at different projected proficiency levels. When interpreting this report, use caution; the subgroup gains come from a liberal statistical process and are less conservative than the estimates of a school's influence on student progress found in the Value-Added Report.

As a part of the analyses, students are assigned to Predicted Proficiency Groups based on their predicted state NCE scores. A student's predicted score is an expected score, based on his or her performance on previous tests, assuming the student is in an average school.

Both the Diagnostic and the Performance Diagnostic Reports can be viewed by subset of students in a Student List.

### Student List

#### Student List – Achievement

<u>Student Name</u>	<u>State NCE</u>	<u>Perf Level</u>	<u>School Name</u>
ARENDS, BLANCA	76	AD	Celia Elementary School
FERRANTE, NOBLE	61	P	Celia Elementary School
HITCHMAN, SIMONE	55	P	Celia Elementary School
HOLLOWAY, CHERRY	65	P	Celia Elementary School
KLOSINSKI, LUISA	65	P	Celia Elementary School
LANGLEY, CONNIE	59	P	Celia Elementary School
LANZETTA, BRUNO	76	AD	Celia Elementary School

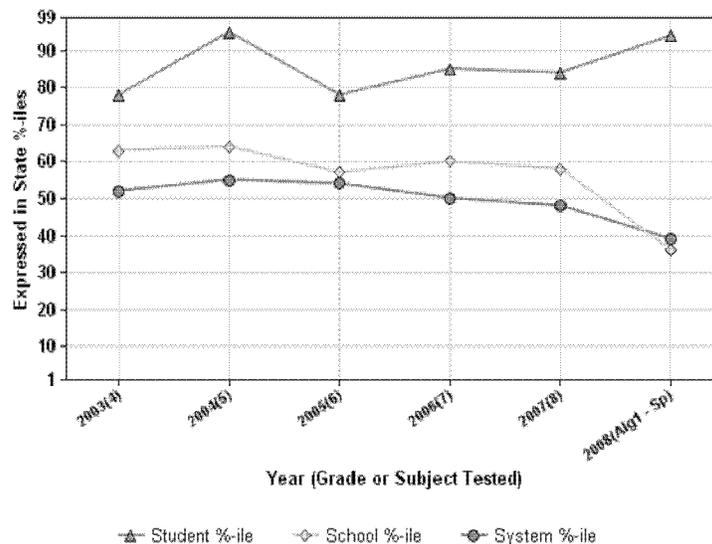
## Student List - High School

<u>Student Name</u>	<u>Predicted Score</u>	<u>Observed Score</u>	<u>Perf Level</u>	<u>School Name</u>
BABBS, COLE	570.6	566	AD	Ana High School
BEMRICH, BENITO	587.3	592	AD	Ana High School
CHITTESTER, SAMMY	613.3	603	AD	Ana High School
COZZOLINO, MYRA	568.4	603	AD	Ana High School
CRUMMETT, DELLA	571.1	592	AD	Ana High School

The student list allows you to drill down to academic achievement information about individual students. Columns with underlined headings allow sorting.

The list includes students tested in the most recent year in the selected grade or prior-achievement subgroup within a grade. For the elementary tests, the student's observed State NCE score for the subject appears next to his or her name, along with the performance level and the name of the school in which the student was enrolled during the most recent testing window. For EOC, Writing, and ACT, the student's predicted test score for the subject appears next to his or her name, followed by the student's observed score, performance level, and the name of the school in which the student was enrolled during the most recent testing window. A student's predicted score is an expected score, based on his or her performance on previous tests, assuming the student is in the average school in the state. Performance levels are also shown for these tests, when available.

## Individual Student Report



Subject: Algebra I						
	Year (Grade or Subject Tested)					
	TCAP CRT (Math)					Gateway (Algebra I)
	2003(4)	2004(5)	2005(6)	2006(7)	2007(8)	2008(Alg1 - Sp)
State NCE \ Score	65	89	63	71	76	603
%-ile	78	95	78	85	84	94
Perf Level				AD	AD	AD

The Student Report contains all available test scores for an individual student, along with the student's Tennessee Percentile for each test and subject. The accompanying graph provides the student's state percentile and the system's mean state percentile for each test administered. The graph provides a picture of the student's history in the subject selected. The year and grade in which the test was administered appear below the graph.

For TCAP CRT, the student's State NCE is listed for each year. For high school tests, the score the student earned is listed. The student's percentile ranking within Tennessee appears in the row below the State NCEs and scores. Students tested with TCAP-ALT or Portfolio will show only the achieved Performance Level.

For high school tests, the season in which the test was administered, Fall (F), Spring (Sp), or Summer (Su), is also indicated. The year of the test refers to the school year to which the test was attributed. For example, tests administered in the summer and fall of 2007 will be labeled 2008 because they are attributed to the 2007-2008 school year.

The bottom row of the table indicates the State Proficiency Level the student has achieved for each test and year for which this measure is available. The State Proficiency Levels are Not Proficient (NP), Proficient (P), and Advanced (AD).

### School Search

School Name:		Tested Grade Data: 6-8							
% Free/Reduced Price Lunch: 58%		% Minority: 12%							
% Tested ELL: 0%		% Tested SP ED: 9%							
Nr of Students Tested: 442									
To find comparable schools, select from these options and click Search:									
Same System only: <input type="checkbox"/> yes <input type="checkbox"/> no									
% Free/Reduced Price Lunch:		% Minority:							
% Tested ELL:		% Tested SP ED:							
Nr of Students Tested:									
<input type="button" value="Search"/>									
School	System	Cum Gain Index	6 Mean	6 Gains	7 Mean	7 Gains	8 Mean	8 Gains	
Selected School									
...	Middle School	County	8.9	5	5	4	3	3	2

The School Search feature allows for the comparison of progress of schools with similar characteristics. Identifying schools that are facing similar challenges may help you pinpoint best practices that can be shared across schools.

The first table lists the school's demographics, including the percentage of students eligible for free or reduced meals, the percentage of minority (non-Caucasian) students, the percentage of students who are English language learners, the percentage of students tested who are receiving special education services, and the number of students tested. The demographic information for this search was extracted from the testing documents. The table also lists the grades served. In order to appear on the list of comparable schools

for TCAP CRT, a school must have at least three years of TVAAS reporting. Schools with only one or two years of value-added results will not be included in the listing.

All schools in Tennessee were assigned to an achievement group, according to the rank of their observed Mean NCE for a grade and subject. A "1" indicates the lowest achievement group and a "5" indicates the highest achievement group. Schools in higher achievement groups have students scoring at higher levels than schools in lower achievement groups.

All schools in the state were also assigned to a progress group according to the rank of their estimated Mean NCE Gain for a grade and subject. A "1" indicates the lowest progress group and a "5" indicates the highest progress group. Students completing grades or subjects at schools with higher progress rates will tend to score at higher achievement levels than their previous achievement would have indicated.

The Cumulative Gain Index is a measure of student progress for the selected test and subject. For schools serving students in grades 3-8, the 3-Yr. Average Mean NCE Gain Over Grades Relative to the Growth Standard was divided by the corresponding standard error.

### Custom Student Report

The Custom Student Report assists with identifying at-risk students (tutoring), applying resources based on student need (advanced classes), accessing students' probabilities for success in future years (projections), viewing students' historical data, and sharing students' information with students and parents (parent conferences, discipline, goal setting, IEP meetings).

The screenshot shows a search interface for a Custom Student Report. At the top, there is a dropdown menu labeled "Student Last Name:" with a search icon. Below this is a text input field. Underneath the input field are several filter options, each with a radio button for "Yes" and "No", and a search icon. The filters are:

- Restrict Search by Grade? (Radio buttons: Yes, No)
- Restrict Search by District and/or School? (Radio buttons: Yes, No)
- Restrict Search to Selected Races (Radio buttons: Yes, No)
- Restrict Search to Selected Sexes (Radio buttons: Yes, No)
- Restrict Search to Selected Demographics (Radio buttons: Yes, No)
- Restrict on Projected Proficiency Level: (Radio buttons: Yes, No)

At the bottom of the form is a "Search" button.

The Custom Student Report allows you to select students by searching on the student's last name or generating a list that may be restricted by grade, district, school, race, sex, demographics, and projected proficiency level.

**Search Results: 1 - 100 out of 134**  
Students who last tested in the 6th grade at Chris Middle School

Next >>

Add	<u>Student</u>	<u>System</u>	<u>School</u>	<u>Sex</u>	<u>Race</u>	<u>Grade</u>	<u>LEP</u>	<u>SpED</u>	<u>Gifted</u>	<u>FRPL</u>	<u>Migrant</u>
<input type="checkbox"/>	<a href="#">AHRENS, BERT</a>	Alpha School District	Chris Middle School	M	B	6	N	Y	N	Y	N
<input type="checkbox"/>	<a href="#">ALLAIN, ELHORA</a>	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
<input type="checkbox"/>	<a href="#">ALLBRIGHT, ALISSA</a>	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
<input type="checkbox"/>	<a href="#">AMINI, NATHANIEL</a>	Alpha School District	Chris Middle School	M	B	6	N	Y	N	Y	N
<input type="checkbox"/>	<a href="#">ANHALT, JERROD</a>	Alpha School District	Chris Middle School	M	B	6	N	N	N	Y	N
<input type="checkbox"/>	<a href="#">ANTHONY, DOLORES</a>	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
<input type="checkbox"/>	<a href="#">BEDNARCZYK, LINWOOD</a>	Alpha School District	Chris Middle School	M	B	6	N	Y	N	Y	N
<input type="checkbox"/>	<a href="#">BERNACCHI, QUINTON</a>	Alpha School District	Chris Middle School	M	B	6	N	Y	N	Y	N
<input type="checkbox"/>	<a href="#">BOEDECKER, WESTON</a>	Alpha School District	Chris Middle School	M	B	6	N	Y	N	Y	N
<input type="checkbox"/>	<a href="#">BONCIORNO, KARLA</a>	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
<input type="checkbox"/>	<a href="#">BOTHMAN, TREVA</a>	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
<input type="checkbox"/>	<a href="#">BOWLING, BONNIE</a>	Alpha School District	Chris Middle School	F	B	6	N	N	N	Y	N
<input type="checkbox"/>	<a href="#">BRUCKNER, MARILYNN</a>	Alpha School District	Chris Middle School	F	B	6	N	Y	N	Y	N

By default, the students are listed alphabetically by last name. Underlined column headings allow sorting. Click on a student's name to link to the Student Report for that student. The students' Achievement Probabilities for the test(s) and proficiency level(s) you selected appear in the last column on the right. Click on the student's probability of success to link to the Projection Report for that student.

**Custom Student Report (Saved)**

**Gateway Algebra I (Proficient)**

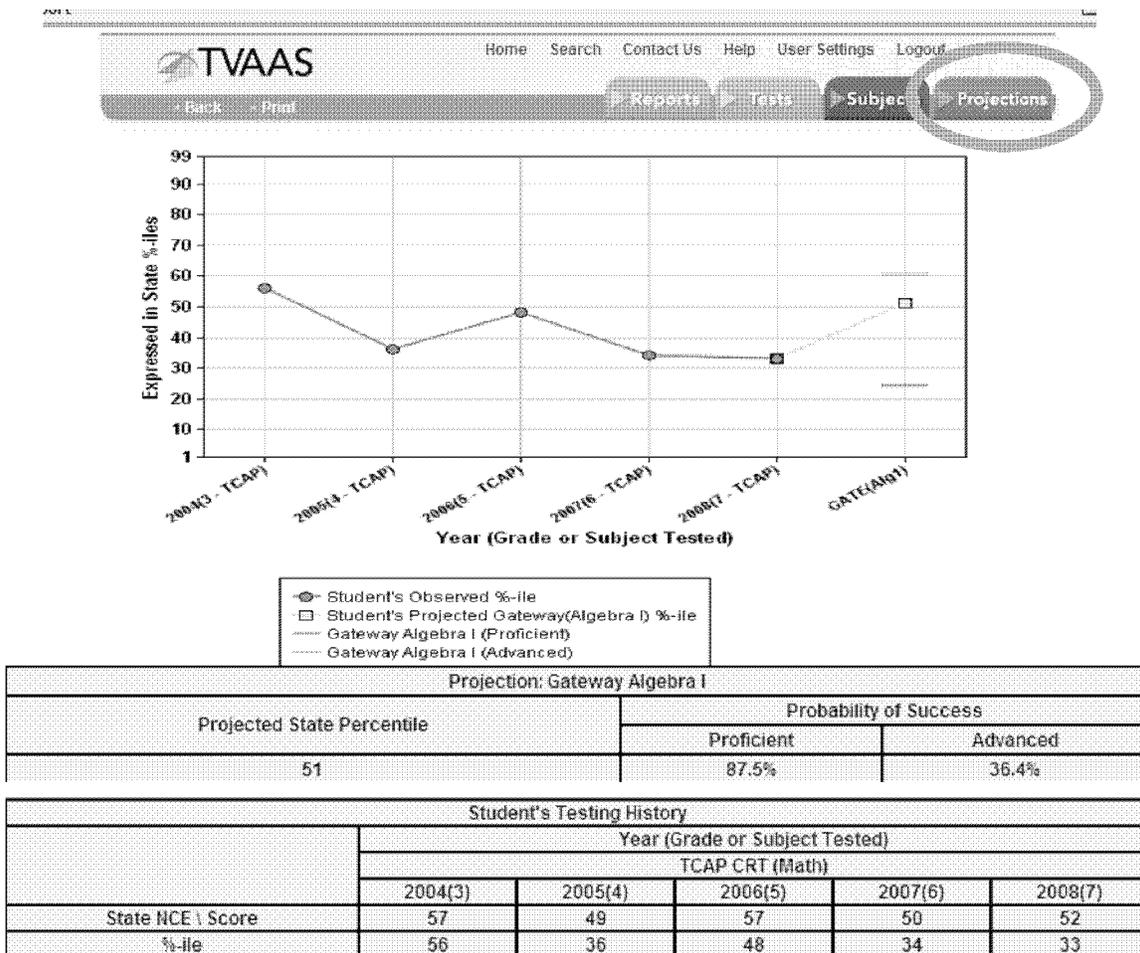
Remove	<u>Student</u>	<u>System</u>	<u>School</u>	<u>Sex</u>	<u>Race</u>	<u>Grade</u>	<u>Gift</u>	<u>Mig</u>	<u>ELL</u>	<u>ED</u>	<u>SpED</u>	<u>Achievement Probability</u>
1.	<input type="checkbox"/>	<a href="#">AILES, THANH</a>	Beta School District	Debby Middle School	F	W	7	N	N	N	Y	<a href="#">0.4</a>
2.	<input type="checkbox"/>	<a href="#">ALTROGGE, BUFORD</a>	Beta School District	Debby Middle School	M	W	7	N	N	N	N	<a href="#">99.1</a>
3.	<input type="checkbox"/>	<a href="#">ARNZEN, COLE</a>	Beta School District	Debby Middle School	M	W	7	Y	N	N	N	<a href="#">100.0</a>
4.	<input type="checkbox"/>	<a href="#">ASP, PETER</a>	Beta School District	Debby Middle School	M	W	7	N	N	N	Y	<a href="#">21.5</a>
5.	<input type="checkbox"/>	<a href="#">BEASON, KARA</a>	Beta School District	Debby Middle School	F	W	7	N	N	N	Y	<a href="#">45.8</a>
6.	<input type="checkbox"/>	<a href="#">BELLUS, ALEC</a>	Beta School District	Debby Middle School	M	B	7	N	N	N	Y	<a href="#">85.9</a>
7.	<input type="checkbox"/>	<a href="#">BICKFORD, JANET</a>	Beta School District	Debby Middle School	F	B	7	N	N	N	Y	<a href="#">69.2</a>
8.	<input type="checkbox"/>	<a href="#">BORKOWSKI, ROSS</a>	Beta School District	Debby Middle School	M	W	7	N	N	N	N	<a href="#">6.1</a>
9.	<input type="checkbox"/>	<a href="#">BORNER, RORY</a>	Beta School District	Debby Middle School	M	W	7	N	N	N	N	<a href="#">95.9</a>
10.	<input type="checkbox"/>	<a href="#">BOTTO, ALVA</a>	Beta School District	Debby Middle School	M	B	7	N	N	N	Y	<a href="#">88.0</a>
											Mean:	<b>61.2</b>
											Std Err:	<b>12.5</b>

Students are listed alphabetically with demographic and other information listed by column. To sort by any of the student information provided, click on the blue, underlined column heading. To see a Student Report, click on the student's name.

The last column on the right lists each student's probability of achieving the future academic milestone currently selected. NA is shown for students who have already taken the test you are projecting to and for students without projections due to insufficient data. Mean probability for this list of students along with the standard error is provided at the bottom of the report. Click on the value in the Achievement Probability column to see a student's Projections report.

Students may be added to or removed from the custom report at any time.

### Student Projections (Tab)



Use the Projections tab to see a student's probability for meeting different academic milestones. Options may vary according to the test data available for the student.

This report is useful in placing students in courses and determining long-term strategies for ensuring that your school provides the best opportunity for academic growth for a student during the K-12 years. For example, if a student has a high probability for being proficient in Gateway Algebra I, consider placing the student in that course rather than EOC Math Foundations.

The number in ( ) is the probability that the student will score at that projection. These projections are best done at the beginning of the school year. Remediation, interventions, etc. can start immediately for those students who are projected not to be proficient.

### Student Pattern List

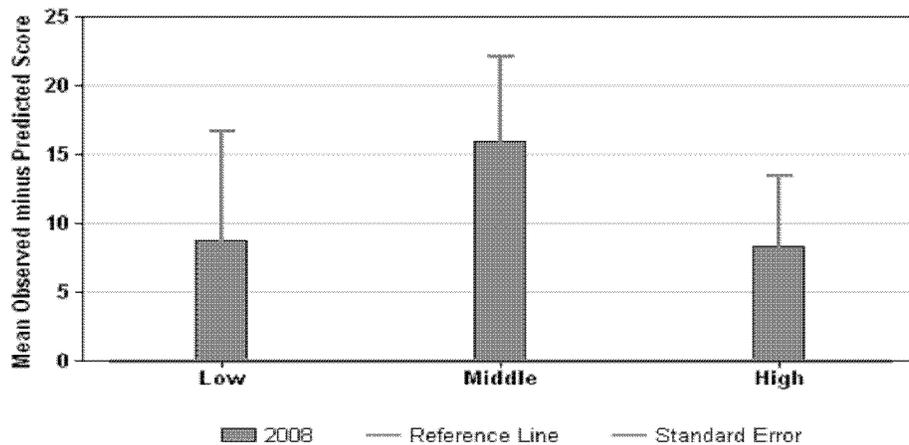
#### 2008 TCAP CRT (Grade 4): Math Students

Select	Student Name	2007 State NCE	2008 State NCE	Avg State NCE	2008 Percentile	Perf Level	School Name
<input type="checkbox"/>	ABBATE, CARSON	57	59	58.0	62	P	Celia Elementary School
<input type="checkbox"/>	AGUADA, MARYBETH	81	65	73.0	72	P	Celia Elementary School
<input type="checkbox"/>	ANTONAKOS, GILDA	21	15	18.0	4	NP	Celia Elementary School
<input type="checkbox"/>	APICELLA, JAVIER	44	43	43.5	31	P	Celia Elementary School
<input type="checkbox"/>	ARENDS, BLANCA	62	76	69.0	86	AD	Celia Elementary School
<input type="checkbox"/>	AUGUSTIN, VELMA		65		72	P	Celia Elementary School
<input type="checkbox"/>	BARANOSKI, ANGELINA	38	47	42.5	37	P	Celia Elementary School
<input type="checkbox"/>	BARKHURST, PHIL	9	25	17.0	8	NP	Celia Elementary School
<input type="checkbox"/>	BEAUSOLEIL, LOYD	57	55	56.0	53	P	Celia Elementary School

This report disaggregates progress for groups of students that you choose. The Student Pattern Report enables you to see how effective the school has been with the lowest, middle, and highest achieving students in the group you have selected. A minimum of fifteen students with two consecutive years of data must be chosen to generate a report.

The Student Pattern List provides the following information for each student on the list: Name, Previous Year NCE, Current Year NCE, Average State NCE, the State Percentile for the most recent test year, the student's performance level, and the name of the school where the student was most recently tested. Each of these columns may be sorted in ascending order by clicking on the column heading. You can access an individual student's testing history by clicking on the student's name. To the left of each student's name is a box that allows you to select the student for inclusion in your Student Pattern Report.

### Student Pattern List



Mean Observed minus Predicted Score		
Low	Middle	High
8.8	15.9	8.3

Students by Subgroup		
Low	Middle	High
<a href="#">HORACIO GWALTNEY</a>	<a href="#">HARLAN YZAGUIRRE</a>	<a href="#">DEANN AUBIN</a>
<a href="#">KENYA GEITNER</a>	<a href="#">TROY ZOLLO</a>	<a href="#">BERRY GUGEL</a>
<a href="#">RICO CHUKES</a>	<a href="#">ESMERALDA DORNFIELD</a>	<a href="#">ALMA HUDY</a>
<a href="#">DEIDRA KEATE</a>	<a href="#">SHANA BUEHRLE</a>	<a href="#">DEON SCHWEGKE</a>
<a href="#">CHELSEY McDERMOTT</a>	<a href="#">ISABELLE TUEY</a>	<a href="#">ESTER FERANDEZ</a>
<a href="#">MARGO LEPPER</a>	<a href="#">JEWELL CLAEYS</a>	<a href="#">MAXWELL JAHDE</a>
<a href="#">TARYN FALTERMAN</a>	<a href="#">JUNIOR BLUMENTHAL</a>	<a href="#">EVERETTE DIMLER</a>

After students are selected for the Student Pattern List, students are assigned to one of three groups: Low, Middle, and High. A student becomes a member of the Low, Middle, or High group based on the average of his or her current and previous year scores. The selected students are then split into three equal groups depending upon whether their average score falls in the lowest, middle, or highest third of the resulting distribution. A single student score contains measurement error. Using the average of two years allows a more appropriate assignment.

A chart demonstrating mean gains for each group is provided. The chart at the top offers a visual representation of the data presented in the table below. The blue bars on the graph represent the mean gain for each of the three groups of students. The names of students included in each subgroup are presented in a table below the Mean Gains. Click on a Student's Name to see the testing history for the student.

When interpreting this report, use caution; the subgroup means come from a liberal statistical process and are less conservative than the estimates of a school's influence on student progress found in the School Value Added Report.

#### Feeder Pattern Report

Elementary School		Middle School			High School			
TCAP		TCAP		GATE	GATE	EOC	ACT	
(NCEs)		(NCEs)		(SS)	(SS)			
4	5	6	7	8	Alg1	Alg1	Math	Math

The Feeder Pattern Report allows you to observe and compare opportunities for student academic progress within specific sequences of schools. Using this report, you can assess strengths and weaknesses in educational delivery across grades and determine whether access to effective schooling is distributed equitably to students assigned to different sequences. This report is largely used by the district office in making decision about student equity.

### Third Grade Percentages

#### 2008 TCAP CRT 3rd Grade Math Students

Student Name	Sex	Race	LEP	SpED	Gifted	FRPL	Migrant	%ile	School Name
ANDERMAN, TEODORO	M	B	N	Y	N	Y	N	8	Dora Elementary School
BARNOSKI, OMA	F	B	N	N	N	N	N	56	Dora Elementary School
BEBOUT, MA	F	B	N	N	N	Y	N	56	Dora Elementary School
BECZE, MAXINE	F	B	N	N	N	Y	N	35	Dora Elementary School
BEIEN, NATHAN	M	B	N	N	N	Y	N	96	Dora Elementary School
BIAGIONI, STEWART	M	B	N	N	N	N	N	39	Dora Elementary School
BLACKERBY, MICAH	M	B	N	N	N	N	N	87	Dora Elementary School
BOOTON, MAXINE	F	B	N	N	N	Y	N	67	Dora Elementary School
BRACKENS, BEAU	M	B	N	N	N	Y	N	42	Dora Elementary School
BRICK, LATRICE	F	B	N	N	N	Y	N	79	Dora Elementary School
BRIGNOLO, KIM	M	W	N	N	N	Y	N	67	Dora Elementary School
BRINKERHOFF, JACKLYN	F	B	N	N	N	N	N	75	Dora Elementary School
BROADFOOT, ANTONIA	F	W	N	N	N	Y	N	71	Dora Elementary School
CABANILLA, LUKE	M	B	N	N	N	Y	N	32	Dora Elementary School

The Third Grade Percentages report lists all third grade students at the school who were tested in the most recent year with the TCAP CRT in the chosen subject. It provides demographic information for these students, in addition to their observed state percentile ranking on the third grade test. The last column identifies the school in which they were tested.

You may sort any column by clicking on the column heading. Rolling over the column headings for demographic data reveals a description of the contents of that column.

### Conclusion

Educators have a responsibility to utilize the student information that is available to them. Value-added provides a missing piece of data that can and should be used when evaluating student achievement and addressing student needs. TVAAS empowers all schools and districts with the benefits of rigorous statistical analyses that produce the results in an easily understood format. Reporting is at the fingertips of users, available in a secure-access web delivery.

As sound instructional decisions are based on multiple measures of student performance, TVAAS reports should be used complementary to information yielded from other student data reports.

**Table 1: Timeline for Implementing New Approaches to Teacher and Principal Effectiveness Based on Performance  
Reform Plan Criterion D(2)**

<b>Goal: To ensure that the state has a high-quality plan to improve teacher and principal effectiveness through new evaluation systems that will affect all human capital decisions.</b>			
<b>For all of these activities, the responsible party will be the Tennessee Department of Education (TDOE), in coordination the State Board of Education, SAS, and LEAs.</b>			
Year 1 2010-11	Year 2 2011-12	Year 3 2012-13	Year 4 2013-14
Teacher Evaluation Advisory Committee to conclude its work and deliver recommendations to the State Board no later than July 1, 2010.	LEAs continue to set annual improvement goals.	LEAs continue to set annual improvement goals.	LEAs continue to set annual improvement goals.
The State Board to adopt, no later than July 1, 2011, the policies necessary to implement the recommended guidelines and criteria in preparation for implementation.	Board to gather data and input for any additional policy development to guide districts in their work.	Board to gather data and input for any additional policy development to guide districts in their work.	Board to gather data and input for any additional policy development to guide districts in their work.
TDOE work with contractors and LEAs to design and begin conducting training on new evaluation system.	Continued training at the LEAs to launch and support evaluation system usage.	Continued training at the LEAs to launch and support evaluation system usage.	Continued training at the LEAs to launch and support evaluation system usage.

LEAs to solicit teacher and principal input on the evaluation system for implementation at the local level.	LEAs to begin implementation. Share local innovations with TDOE and State Board to inform future direction/policymaking.	LEAs to continue implementation. Share local innovations with TDOE and State Board to inform future direction/policymaking.	LEAs to continue implementation. Share local innovations with TDOE and State Board to inform future direction/policymaking.
TDOE develop reporting mechanisms to disseminate data on performance of LEAs and schools in developing more effective teachers and principals.	Issue report on performance of LEAs and schools in developing more effective teachers and principals along with first-year observations and recommendations for action.	Issue report on performance of LEAs and schools in developing more effective teachers and principals along with observations and recommendations for action.	Issue report on performance of LEAs and schools in developing more effective teachers and principals along with observations and recommendations for action.
Use annual evaluation results to inform teacher and principal professional development (see Appendix D-5-1).	Use annual evaluation results to inform teacher and principal professional development (see Appendix D-5-1).	Use annual evaluation results to inform teacher and principal professional development (see Appendix D-5-1).	Use annual evaluation results to inform teacher and principal professional development (see Appendix D-5-1).
Provide financial support for significant statewide training related to TVAAS data and the use of data dashboards as well as advanced training on using data to differentiate instruction (see Appendix D-5-1)	Data training continues on smaller scale.	Data training continues on smaller scale.	Data training continues on smaller scale.

### **REPORTING OF TEACHER EFFECTIVENESS**

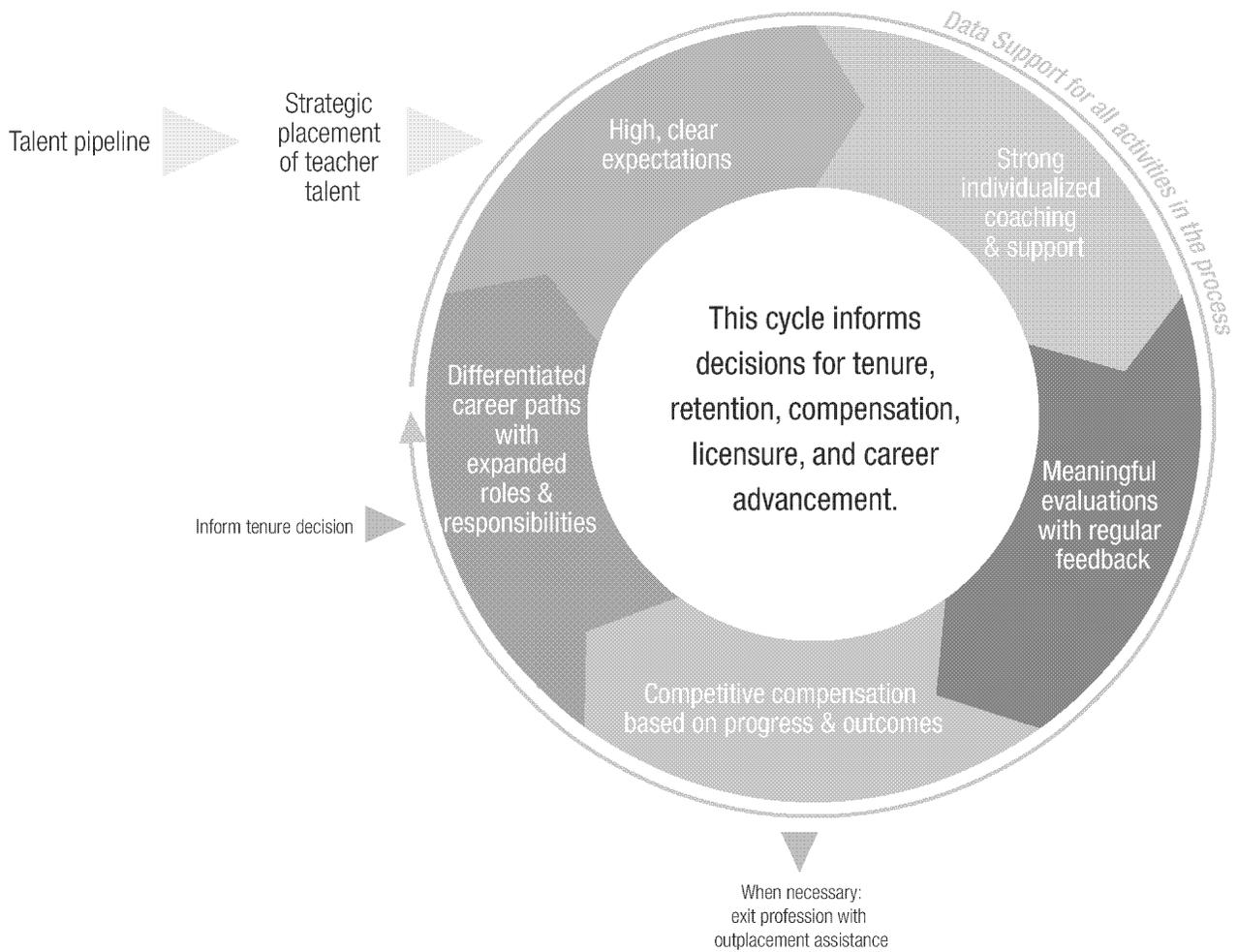
Tennessee will begin reporting teacher effectiveness in 5 levels in order to determine the impact any teacher has on student learning growth in a school year. The TVAAS calculations will compare teachers over the course of this grant to the average learning gain exhibited by Tennessee students during the 2008-2009 school year.

Level 1 teachers are the least effective teachers compared to the average amount of learning growth a student should gain in a year. These teachers will be described as ineffective. Level 2 teachers also do not produce an average amount of learning gains in a single year. However, compared to Level 1, these teachers are closer to providing the required amount of knowledge gain in students and will be referred to as Approaching Average Effectiveness. Level 3 teachers do a good job of providing a years worth of knowledge gain among the students in their class. Tennessee refers to these teachers as obtaining Average Effectiveness in the classroom.

Level 4 and 5 teachers both do a great job of providing above average learning gains in a single year for their students. Level 4 teachers provide slightly more gains than a level 3 average effective teacher. Level 5 teachers provide a tremendous amount of growth in student learning among the students in their classroom.



# Tennessee Teacher Effectiveness Cycle





## TEI Overview

(b)(6)



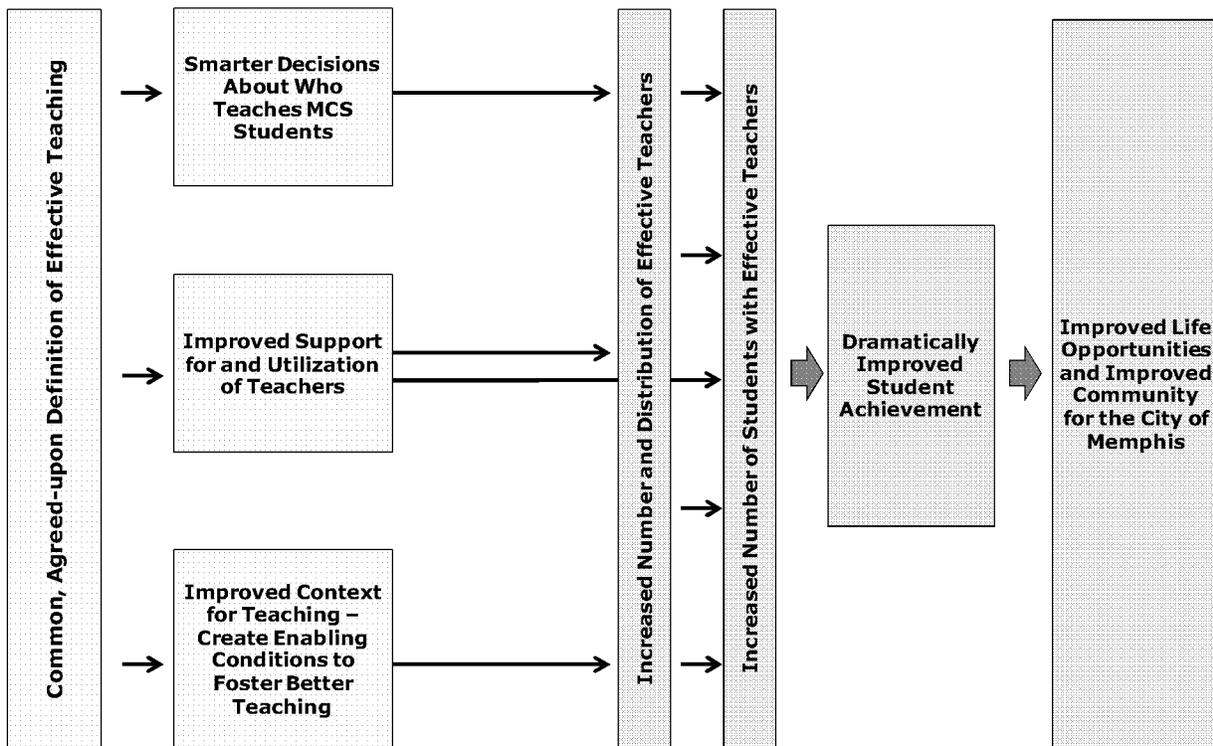
# TEACHER EFFECTIVENESS INITIATIVE: AN OVERVIEW

## VISION OF SUCCESS

The Memphis City Schools Teacher Effectiveness Initiative (TEI) will deepen and accelerate our existing aggressive reform agenda. It will provide the additional fuel necessary to drive dramatically improved student achievement. While many poor and minority youth achieve at the very highest academic levels, the achievement gap—and its impact—is real. This gap (currently narrowing much too slowly) must be closed. Of course, this achievement gap is a matter of access and experience—not ability. We envision every child being taught by an effective teacher every day, every year. With such access to high quality learning experiences, our students’ lives will be changed, and our city will be transformed.

To realize this vision, our overall strategy must be implemented as seamlessly as the following causal model implies:

### *MCS TEI Vision and Theory of Change*



## DISTRICT BASELINE

The conditions at present in Memphis City Schools (MCS) offer a unique combination of need, opportunity, and momentum. Our students (of whom 92% are minority and 83% are eligible for

free and reduced-priced meals) require a quantum leap in academic achievement: only 6% of MCS students who elect to take the ACT (i.e. 3-4% of total students) are deemed “college-ready” in all four subject areas. There is new, determined energy to change this, and there is clearly momentum. After one year of new district leadership, accelerated reforms have laid the groundwork for a laser-like focus on teacher effectiveness. Additionally, MCS is well-positioned to tackle this difficult work due to a productive and collaborative relationship with the Memphis Education Association and a Board of Commissioners that is deeply engaged in the policy work needed to sustain education reform. Finally, MCS is in a position of strength due to experience with value-added measures (i.e. TVAAS; Mathematica) and successful implementation of an incentive pay plan.

While MCS has seen some tremendous successes over the past year, there is clearly much work to be done—especially in regards to how we think about our teachers. As The New Teacher Project’s recent report suggests, we (like many districts) largely treat our teachers as “widgets.” We operate as if one teacher is as good for students as another. This is evidenced in and driven by our lack of a common definition of “effective teaching.” We lack an informative teacher evaluation process, and we pass by many potentially crucial human capital decisions. We fail to recognize and reward excellence, and we do not respond appropriately to teachers who may need assistance. From our least effective teachers to our very best—all are provided the same professional development opportunities, and all are compensated on the same longevity and degree-based scale.

This will change. The district is positioned to successfully implement this Teacher Effectiveness Initiative. The current momentum in the district demonstrates our capacity to conceive and implement a reform agenda at scale. Memphis City Schools is uniquely poised to set new patterns of achievement for an urban district in the Mid-South.

## STRATEGIC INITIATIVES

---

To be successful, we must execute each aspect of our strategy with intentionality and fidelity:

***We will use a common, agreed-upon process to define and measure what we deem to be effective teaching.***

Our entire strategy rests upon being able to speak in an intelligent and common language about teacher effectiveness. Thus, we will create a Teacher Effectiveness Measure (TEM) that consists of the following measures:

***Growth in student learning:*** We will leverage two existing sources of value-added data (i.e. TVAAS and Mathematica) for many core subject areas. We will create assessments as needed in order to obtain value-added data for additional high impact subjects.

***Observation of teachers’ practice:*** We will pilot multiple methods for conducting classroom observations, including video reviews and classroom visits by professional, trained evaluative observers (including principals and peers).

***Stakeholder perceptions:*** We will survey students, parents, and colleagues in order to learn important insights about critical teacher characteristics, such as effort, professionalism, citizenship, teamwork, and academic and non-academic care for students.

**Teacher knowledge:** We will ascertain how well our teachers understand their subject area content and pedagogy.

***We will make smarter decisions about who teaches our students.***

We know that all teachers are not the same. The “who” is important. To ensure that all of our students have the most knowledgeable, talented, and dedicated teachers possible, we will do the following:

***Improve recruitment and hiring of “high potential” teachers***

We will bolster our teacher pipeline by better leveraging existing partnerships that specialize in recruiting and staffing teachers for urban school systems.

***Raise the bar and improve the process for granting tenure***

Working within our current policy and legal frameworks, we will develop a robust tenure process that is based on our new Teacher Effectiveness Measure.

***Increase the retention of effective teachers, particularly early in their careers***

We will bolster efforts to retain our best teachers through the early years of their teaching careers (when they are mostly likely to leave). A performance-based retention bonus, vesting over three years, will be provided to our most effective first and second-year teachers to signal the district’s commitment to and need for these teachers.

***Increase the turnover of the most ineffective teachers***

We will implement a new career management process which brings attention to underperformance, supporting teachers where appropriate and dismissing when necessary.

***We will better support, utilize, and compensate our teachers.***

We will improve the experiences of our teachers in terms of the support they are provided and the opportunities they are given:

***Improve the teacher evaluation process***

We will develop a trusted teacher evaluation process, based on the new Teacher Effectiveness Measure, which is objective, meaningful, and useful.

***Connect professional support opportunities to individual need***

We will focus professional support efforts on frequent, individualized formative observations conducted by peers. Additionally, teachers will be provided individualized support via targeted on-line professional learning opportunities.

***Create new and differentiated career paths that promote teachers to increasing levels of influence based on their effectiveness and accomplishment***

Based on the TEM, high performing teachers will be eligible for promotions along a new career path comprised of the following teacher roles:

- **Beginning Teacher:** For their first three years of teaching, non-tenured teachers will receive significant formal mentorship and teaching support from Master Teachers.

- Professional Teacher: A Professional Teacher will be similar to the standard role of an MCS classroom teacher today. However, the various changes that accompany this Teacher Effectiveness Initiative will cause this role to be more substantial than has previously been the case.
- Master Teacher: Our very best teachers will be charged with expanding their influence to larger numbers of students (and teachers).

***Compensate teachers based on differentiated roles and performance***

We will implement a new base compensation structure that is determined by teacher role/performance rather than service time and degree attainment. Additionally, all teachers will be provided performance-based group bonus opportunities for group attainment of student learning growth goals.

***Strategically place our best teachers where they are most needed***

To ensure that our highest-need students are taught by the most effective teachers, we will: 1) place Master Teachers in the schools where they are most needed, 2) assign Master Teachers to the highest-need students in their existing schools, and 3) cluster “high potential” teacher recruits in high-need schools.

***We will improve the surrounding contexts for teachers and students to foster effective teaching.***

We will intentionally craft the kinds of environments that help facilitate improved teaching and learning. We will:

***Improve principal leadership capacity***

We will improve our principals’ capacity through multiple avenues, including targeted recruitment, rigorous performance management, strategic placement, and intensive training and development.

***Improve school culture to create conditions that foster effective teaching and learning***

In order to establish school climates that support effective teaching, we will strive to raise the expectations of teachers and administrators regarding 1) the capabilities of children and 2) the personal responsibility of teachers and administrators for student achievement.

***Develop a new technology platform that will support the data-driven decision-making that is crucial for the success of the Teacher Effectiveness Initiative***

New technology systems will enable real-time queries of human capital data linked to student achievement and budget information.



RESEARCH BRIEF  
March 2007

## Tennessee's Most Effective Teachers

Are they assigned to the schools that need them the most?

On December 14, 2006, the U.S. Department of Education approved Tennessee's Teacher Equity Plan. The plan included a comprehensive analysis of teacher experience and education levels across schools that serve high versus low proportions of students in poverty and in schools that serve high versus low proportions of minority students. In keeping with findings from similar analyses in other states, Tennessee identified pervasive disparities in teacher experience and education levels across schools:

- High-poverty schools and high-minority schools have a larger percentage of beginning teachers than low-poverty schools and low-minority schools, and
- High-poverty schools and high-minority schools have a smaller percentage of teachers with master's degrees than low-poverty schools and low-minority schools.

In the plan, Tennessee committed to taking this analysis one crucial step further to examine the disparity in teacher effectiveness across schools based on student poverty and race/ethnicity.

It is important to measure teacher effectiveness because teacher experience and education do not always predict impact in the

classroom. Some beginning teachers with bachelor's degrees, for example, may be as or more effective at improving student achievement than experienced teachers with master's degrees.

It is also essential to study the distribution of teacher effectiveness across schools. In Tennessee, students in poverty and minority students are less likely to be meeting grade-level standards than other students. While they make about the same rate of academic progress each year as other students, they are more likely to start out below grade level. They need effective teachers – teachers who have the ability to accelerate their rate of academic progress – to reach grade level expectations and beyond.

Tennessee is uniquely positioned to carry out this analysis. For more than 14 years, the state has been harnessing its longitudinal student assessment database – which includes links between students and their teachers – to measure teacher effectiveness. Its "value-added" statistical model, developed by Dr. William L. Sanders, isolates the impact each teacher has on individual students' academic growth. This impact is captured in a "teacher effect" score.

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Teacher effect scores are reported in normal curve equivalent (NCE) scores relative to the average growth of students statewide in a given grade and subject. A teacher effect score below zero indicates that the average student in the teacher's class made less growth than the statewide average, while a teacher effect score above zero indicates that the average student in the teacher's class made more growth than the statewide average. All teacher effect scores include a standard error, which is a measure of the uncertainty around the score.

This report uses statewide teacher effect scores in math for 2005-06. For purposes of this analysis, teachers were divided into one of three categories based on their teacher effect scores: "least effective", "most effective", or between:

- If a teacher's effect score was below zero, and one and a half standard error above the score was still negative, the teacher was categorized as "least effective."
- If a teacher's effect score was positive, and one and a half standard error below the score was still positive, the teacher was categorized as "most effective".
- All other teachers were classified as between.

The report compares the distribution of teachers in the "least effective" and "most effective" categories.

It first compares teacher effectiveness in schools that serve high proportions of students in poverty and minority students (high poverty/high minority)

versus teacher effectiveness in schools that serve low proportions of students in poverty and minority students (low poverty/low minority).<sup>1</sup> It makes two separate comparisons across the two types of schools:

- The percent of the schools' teaching staff that falls in the "least effective" category and the percent that falls in the "most effective" category, and
- The average effectiveness of the teachers who fall in the "least effective" category and of the teachers who fall in the "most effective" category.

It then makes the same comparison, but differentiates by the teacher's experience level. This indicates how the correlation between teacher experience and effectiveness differs between the two types of schools.

The report has serious implications for education policies designed to match effective teachers with the students who need them the most. It finds a clear equity problem. Low-income and minority children have the least access to the state's most effective teachers and more access to the state's least effective teachers. Although many of the beginning teachers in high poverty/high minority schools are among the state's most effective, many of them do not stay in these schools or lose their effectiveness over time.

These patterns must be eliminated or reversed to achieve national, state, and local education goals for all students to reach challenging grade-level standards.

<sup>1</sup> High poverty/high minority schools have at least 75% students who qualify for free or reduced price lunch and at least 75% students who are African-American, American Indian/Alaska Native, Asian/Pacific Islander, or Hispanic/Latino. Low poverty/low minority schools have less than 25% students who qualify for free or reduced price lunch and less than 25% students who are African-American, American Indian/Alaska Native, Asian/Pacific Islander, or Hispanic/Latino.

## Teacher Effectiveness Comparison by School Type

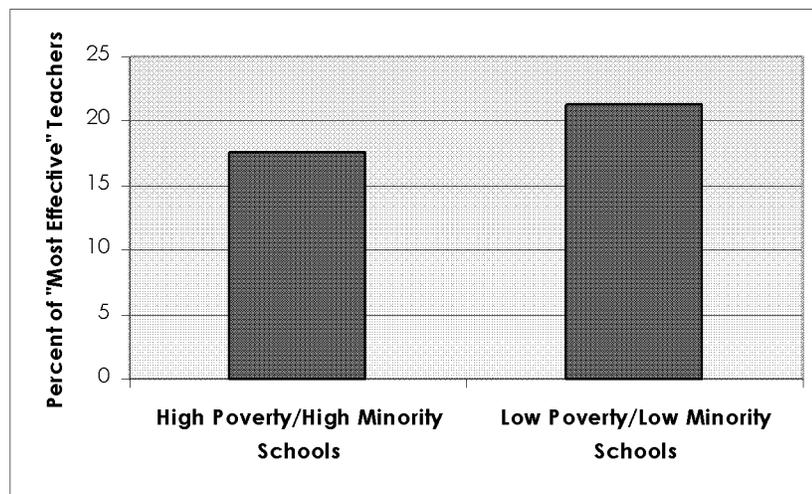
Tennessee's teacher effectiveness data indicate that students in high poverty/high minority schools have less access to the "most effective" teachers and more access to the "least effective" teachers than students in low poverty/low minority schools.

In high poverty/high minority schools, teachers who fall into the "most effective" category make up 17.6 percent of the teaching staff. In low

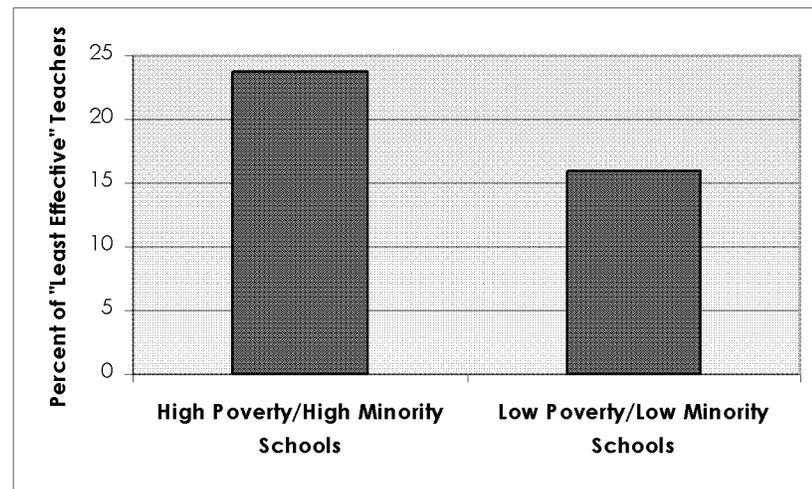
poverty/low minority schools, meanwhile, these teachers comprise 21.3 percent of the teaching staff (Figure 1).

In high poverty/high minority schools, teachers who fall into the "least effective" category make up 23.8 percent of the teaching staff. In low poverty/low minority schools, these teachers comprise 16 percent of the teaching staff (Figure 2).

**Figure 1: Distribution of the "Most Effective" Teachers**



**Figure 2: Distribution of the "Least Effective" Teachers**



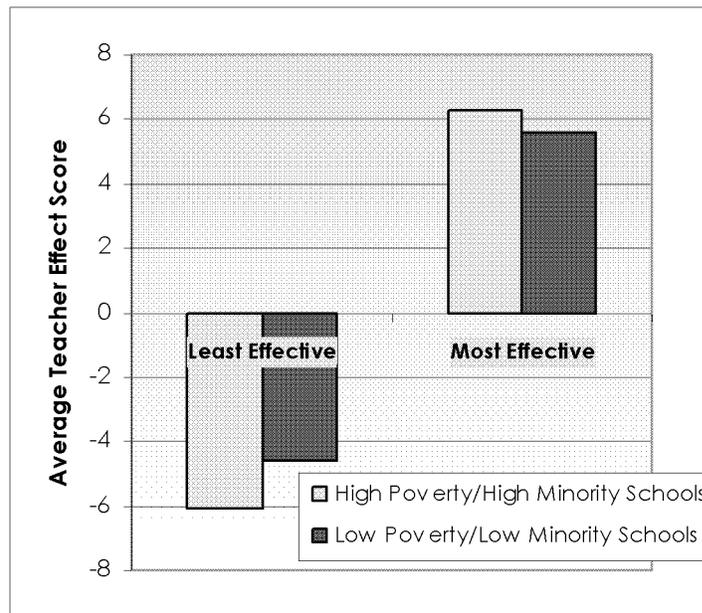
Tennessee’s data also show that the average effectiveness of teachers within the categories differs by the type of school (Figure 3). The “least effective” teachers in high poverty/high minority schools are even less effective than the “least effective” teachers in low poverty/low minority schools.

schools are even more effective than the “most effective” teachers in low poverty/low minority schools.

These results confirm the importance of teacher effectiveness in high poverty/high minority schools, and further underscore the need for their students to have equal access to effective teachers.

Meanwhile, the “most effective” teachers in high poverty/high minority

**Figure 3: Average Effectiveness of Teachers**



**Teacher Effectiveness Comparison by School Type and Experience Level**

The above data clearly identify an inequity in student access to effective teachers, but to develop policies that could eliminate the inequity, policymakers and educators need to know more about how these types of schools differ in their ability to retain and attract effective teachers throughout their careers.

indicating that high poverty/high minority schools have larger percentages of teachers with few years of experience and smaller percentages of teachers with many years of experience.

The analyses in Tennessee’s Teacher Equity Plan and in numerous other studies show that high poverty and high minority schools have a disproportionate number of beginning teachers. The current data analysis confirms this relationship (Table 1),

**Table 1: Teacher Years of Experience**

Teacher Years of Experience	High Poverty/High Minority Schools	Low Poverty/Low Minority Schools
0-2	17.3	13.9
3-5	20.0	13.5
6-10	25.0	22.1
11-20	18.3	24.2
21+	19.4	26.3

**Figure 4: Distribution of the “Most Effective” Teachers by Experience**

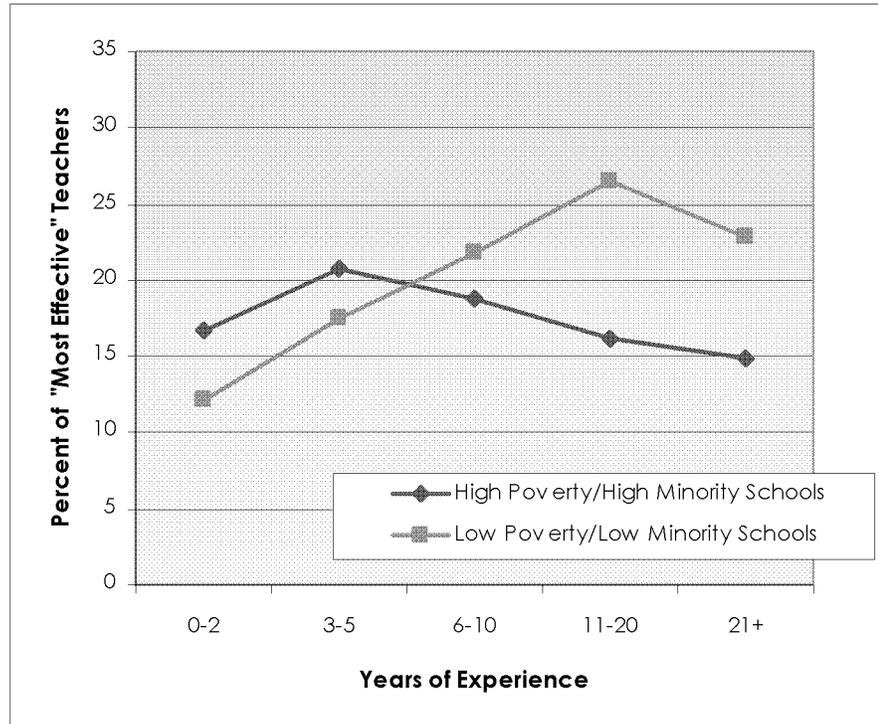


Figure 4 compares the percentage of “most effective” teachers by experience level in high poverty/high minority schools to the percentage of “most effective” teachers by experience level in low poverty/low minority schools.

It finds that among teachers with up to 5 years of experience:

- High poverty/high minority schools have a larger percentage of “most effective” teachers than low poverty/low minority schools.
- For both types of schools, teachers with 3-5 years of experience are more likely to fall into the “most effective” category than teachers with up to 2 years of experience.

Among teachers with 6 or more years of experience:

- High poverty/high minority schools have a smaller percentage of “most effective” teachers than low poverty/low minority schools.
- In low poverty/low minority schools, teachers are more likely to fall into the “most effective” category as they gain more experience (up to 20 years). In high poverty/high minority schools, however, teachers are less likely to fall into the “most effective” category as they gain more experience.

**Figure 5: Distribution of the “Least Effective” Teachers by Experience**

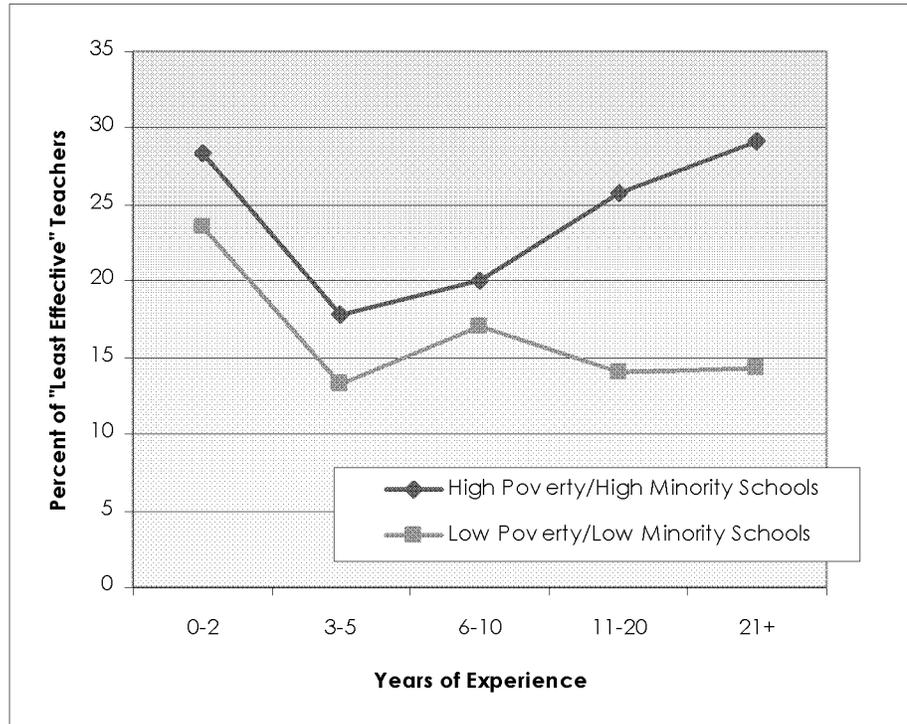


Figure 5 compares the percentage of “least effective” teachers by experience level in high poverty/high minority schools to the percentage of “least effective” teachers by experience level in low poverty/low minority schools.

It shows that across all levels of experience:

- High poverty/high minority schools have a larger percentage of “least effective” teachers than low poverty/low minority schools.

Among teachers with up to 5 years of experience:

- In both types of schools, teachers with 3-5 years of experience are much less likely to fall into the “least effective” category than teachers with up to 2 years of experience.

Among teachers with 6 or more years of experience:

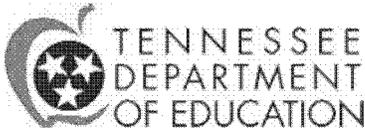
- In high poverty/high minority schools, teachers are more likely to fall into the “least effective” category as they gain more experience.

## Conclusion

These comparisons find that students in Tennessee's high poverty/high minority schools have less access to the state's most effective teachers and more access to the state's least effective teachers. They suggest that while many of the beginning teachers in high poverty/high minority schools are among the state's most effective, many of them do not stay in these schools or lose their effectiveness over time.

The analyses also validate that Tennessee's efforts to ensure an

equitable distribution of teachers to low-income children and minority children must be focused on teacher effectiveness as well as teacher qualifications such as experience and education. Tennessee has a treasure of data to support these efforts. Through continuous evaluation at the state, district, school, and classroom levels, these data can guide policymakers and educators alike in improving instruction and matching teachers to the students who need them the most.



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## Distribution of Effective Teachers in Tennessee Schools

### Research Brief: December 2009

Tennessee's 2006 Teacher Equity Plan's review of 2004-05 data revealed that high poverty and high minority schools had a larger percentage of beginning teachers, a smaller percentage of teachers with master's degrees, and a lower percentage of core academic courses taught by highly qualified teachers (HQTs) than low poverty and low minority schools. In 2007, through follow-up analyses using 2005-2006 teacher effect data, Tennessee found that students in high poverty/high minority schools had less access to the state's most effective teachers and more access to the state's least effective teachers. The state concluded that a clear equity problem existed.

This 2009 report seeks to update the 2007 teacher effectiveness study by analyzing teacher effectiveness in high priority schools. Using teacher effect data for 2007-08, the report concludes that an equity gap exists and varies by subject. Students in Tennessee's high priority schools have less access to the state's most effective teachers in reading/language arts, English II, and Algebra I and more access to the state's least effective teachers in reading/language arts and math than students in other schools across the state.

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### Teacher Effectiveness

This report use statewide teacher effect scores to examine teacher effectiveness in high priority and other Tennessee schools. The teacher effect score measures student progress on statewide achievement assessments for the school year 2007-2008. Teachers whose students' progress on achievement assessments exceeds the growth standard on average have positive teacher effect scores. Teachers whose students' achievement results fail to meet the state's growth standard on average have negative teacher effect scores. The teacher effect score is zero for teachers whose students' assessment results met the state's growth standard on average. For the purposes of this analysis, teachers are divided into one of three categories based on their teacher effect scores: "Least Effective", "Most Effective", or "Average Effectiveness". The "Least Effective" teachers have teacher effect scores that are strongly negative (at least one and a half standard errors below zero). The "Most Effective" teachers have teacher effect scores that were strongly positive (at least one and one half standard errors above zero). Teachers of "Average Effectiveness" have teacher effect scores that are close to zero (within one and a half standard errors from zero). The analysis that follows reports results for the most and least effective teachers by subject and grade span for high priority and all schools in Tennessee.

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## High Priority Schools vs. All Schools

High priority schools in Tennessee are schools whose students did not meet performance benchmarks for two consecutive years and include both Title I and non-Title I schools. High priority schools are not all high poverty schools but are all schools in need of highly effective teachers to help their students meet performance benchmarks.

**Figures 1 through 4** examine the distribution of the most and least effective teachers in high priority schools and all schools statewide by subject and grade span. **Figure 1** explores the distribution of most effective teachers in reading/language arts and math in grades 3-8. **Figure 2** examines the distribution of most effective teachers in English II and Algebra I in high school. **Figure 3** shows the percentage of least effective teachers in reading/language arts and math in grades 3-8, and **Figure 4** reveals the percentage of least effective teachers for English II and Algebra I in high school.

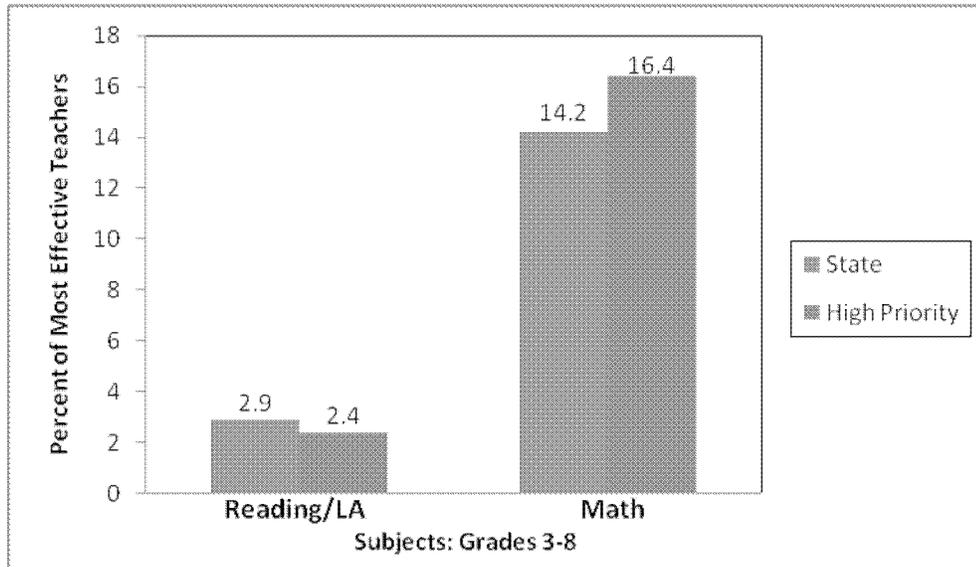
These figures indicate that students in high priority schools have less access than students in schools across the state to the most effective teachers in English II, Algebra I, and reading/language arts, and more access to the least effective teachers in reading/language arts and math. Only in math do students in high priority schools have more access than students in schools across the state to the most effective teachers, and only in Algebra I do students in high priority schools have less access to the least effective teachers.

The results also show that the inequitable distribution of least effective teachers was most significant for reading/language arts: 5.2 percentage points (7.4% for high priority schools compared to 2.2% for all schools). Similarly, the equity gap affecting most effective teachers was greatest for English II: 5.6 percentage points (10.2% in high priority school compared to 15.8% in all schools).

Equally troubling, the percentage of most effective teachers was much lower in reading/language arts (2.4% - 2.9%) than in math (14.2% - 16.4%), English II (10.2% - 15.8%), and Algebra I (25.6% - 28.5%), indicating the need to improve the quality of reading/language arts teachers across Tennessee schools.

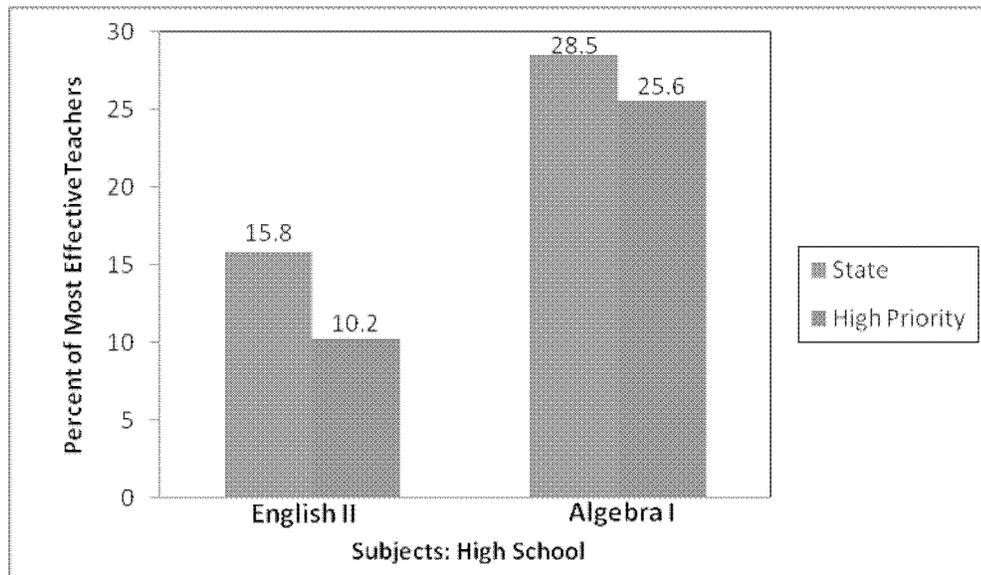
These findings are important as Tennessee works towards an equitable distribution of highly effective teachers. Students in Tennessee's high priority schools need highly effective teachers to help them improve their rate of academic progress.

**Figure 1: Distribution of the Most Effective Teachers: Grades 3-8**



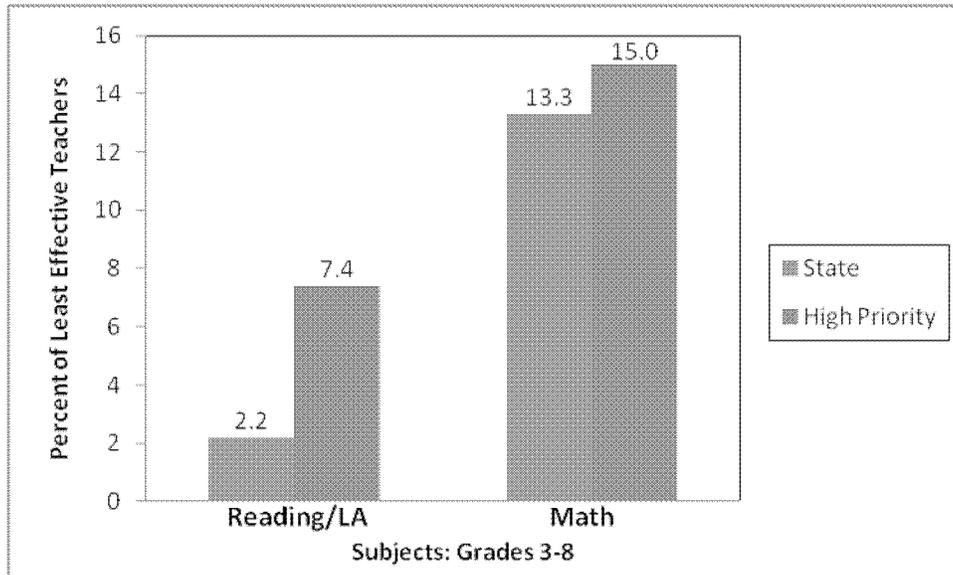
(SAS Institute Inc., 2009)

**Figure 2: Distribution of the Most Effective Teachers: High School**



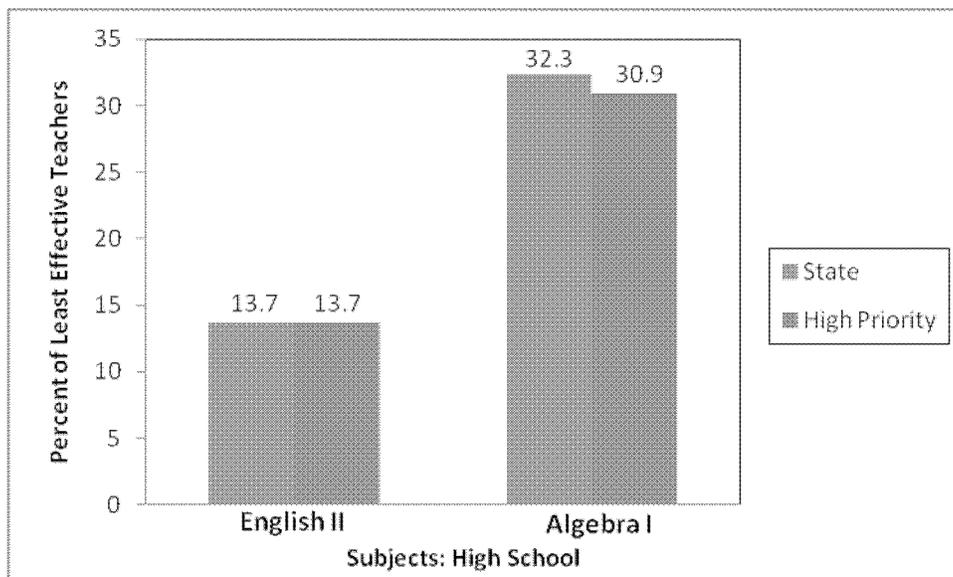
(SAS Institute Inc., 2009)

**Figure 3: Distribution of the Least Effective Teachers: Grades 3-8**



(SAS Institute Inc., 2009)

**Figure 4: Distribution of the Least Effective Teachers: High School**



(SAS Institute Inc., 2009)

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## Conclusion

This study finds that students in Tennessee’s high priority schools have less access to the state’s most effective teachers and more access to the state’s least effective teachers. The results indicate a disparity in teacher effectiveness across schools in Tennessee and point to the need for continued efforts to analyze and correct this disparity.<sup>1</sup> Through continuous evaluation at the state, district, school, and classroom levels, these data can guide policymakers and educators alike in improving instruction and matching teachers to the students who need them the most.

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<sup>1</sup> These results support those from the 2007 study, which concluded that students in Tennessee’s high poverty/high minority schools have less access to the state’s most effective teachers and more access to the state’s least effective teachers. (See the Appendix for a detailed discussion of teacher effectiveness in high poverty/ high minority schools and low poverty/low minority schools.).

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## Appendix

### Teacher Effectiveness Comparison for Math in Grades 3-8 by School Type and Experience Level

This section uses 2007-08 data to compare the distribution of teachers in the “least effective” and “most effective” categories. Using statewide teacher effect scores in math (elementary level), it first compares teacher effectiveness in schools that serve high proportions of students in poverty and high proportions of minority students (high poverty/high minority) versus teacher effectiveness in schools that serve low proportions of students in poverty and low proportions of minority students (low poverty/low minority).<sup>1</sup> The final sections examines variation in teacher experience levels across high poverty/high minority and low poverty/low minority schools.

High poverty/high minority schools have at least 75% students who qualify for free or reduced price lunch and at least 75% students who are African-American, American Indian/Alaska Native, Asian/Pacific Islander, or Hispanic/Latino. Low poverty/low minority schools have less than 25% students who qualify for free or reduced price lunch and less than 25% students who are African-American, American Indian/Alaska Native, Asian/Pacific Islander, or Hispanic/Latino.

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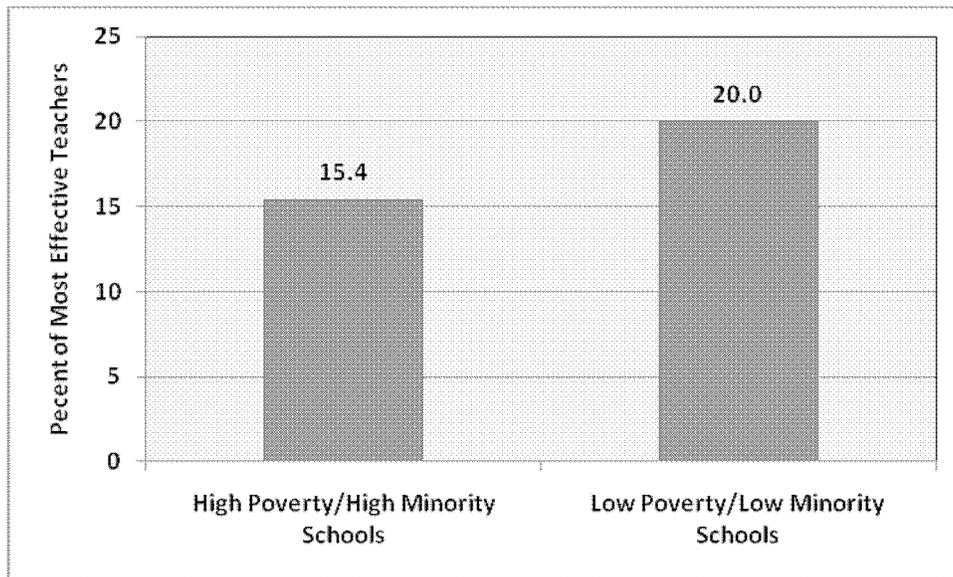
### Teacher Effectiveness Comparison by School Type

Tennessee’s teacher effectiveness data indicate that students in high poverty/high minority schools have less access to the most effective teachers and more access to the least effective teachers than students in low poverty/low minority schools.

### Distribution of the Most Effective Teachers

In high poverty/high minority schools, teachers who fall into the “most effective” category make up 15.4 percent of the teaching staff. Meanwhile, in low poverty/low minority schools, these teachers comprise 20.0 percent of the teaching staff (**Figure 1A**).

**Figure 1A: Distribution of the Most Effective Teachers**

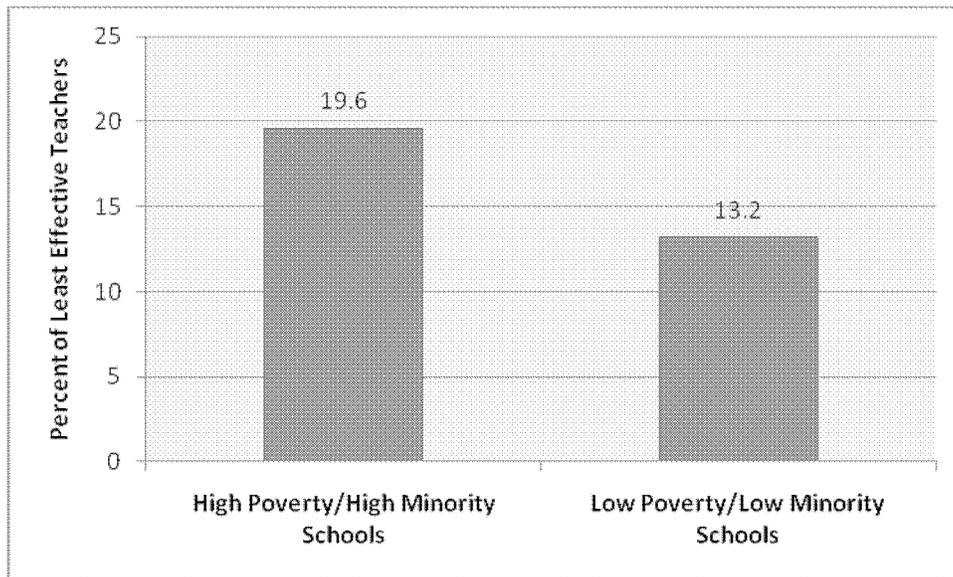


(SAS Institute Inc., 2009)

### Distribution of the Least Effective Teachers

In high poverty/high minority schools, teachers who fall into the “least effective” category make up 19.6 percent of the teaching staff. In low poverty/low minority schools, these teachers comprise 13.2 percent of the teaching staff (Figure 2A).

**Figure 2A: Distribution of the Least Effective Teachers**



(SAS Institute Inc., 2009)

**Figure 3A** compares the percentage of most effective teachers by experience level in high poverty/high minority schools to the percentage of most effective teachers by experience level in low poverty/low minority schools.

Among teachers with 5 years of experience or less:

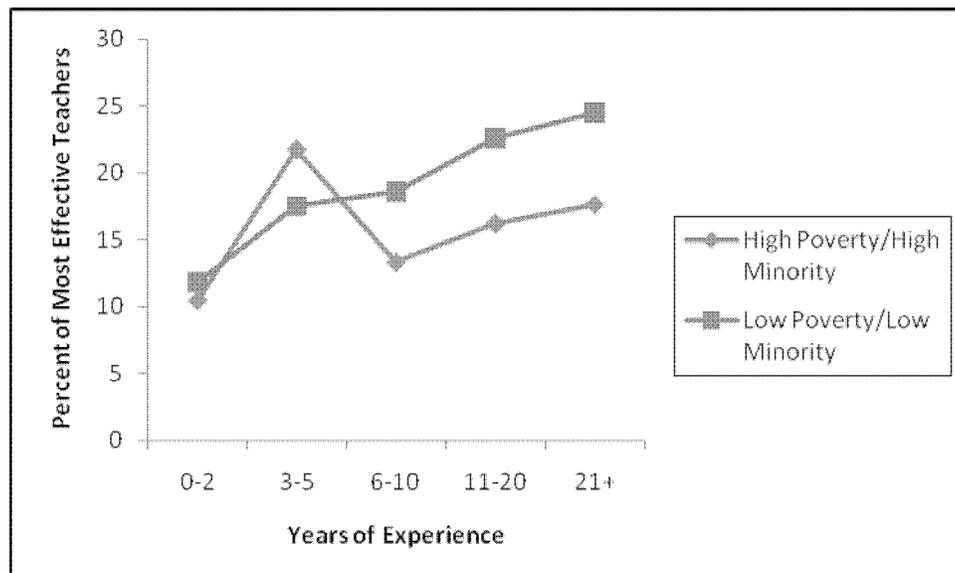
- Low poverty/low minority schools have a slightly larger percentage (1.3%) of most effective teachers with 0-2 years of experience than high poverty/high minority schools.
- High poverty/high minority schools have a larger percentage (4.2%) of most effective teachers with 3-5 years of experience than low poverty/low minority schools.
- For both types of schools, teachers with 3-5 years of experience are more likely to fall into the most effective category than teachers with up to 2 years of experience.

Among teachers with 6 or more years of experience:

- High poverty/high minority schools have a significantly smaller percentage of most effective teachers than low poverty/low minority schools. And the gap widens over time because:
- In low poverty/low minority schools, as teachers gain experience, they are more likely to fall into the most effective category.

In high poverty/high minority schools, however, teacher effectiveness declines among teacher with between 5 and 10 years of experience and increases more slowly thereafter than in low poverty/low minority schools.

**Figure 3A: Distribution of the Most Effective Teachers by Experience**



(SAS Institute Inc., 2009)

**Figure 4A** compares the percentage of least effective teachers by experience level in high poverty/high minority schools to the percentage of least effective teachers by experience level in low poverty/low minority schools.

It shows that among teachers with 0-2 years of experience as well as among teachers with over 5 years of experience:

- High poverty/high minority schools have a larger percentage of least effective teachers than low poverty/low minority schools.

Among teachers with 3-5 years of experience:

- Low poverty/low minority schools have a slightly larger percentage (0.3%) of least effective teachers than high poverty/high minority schools.

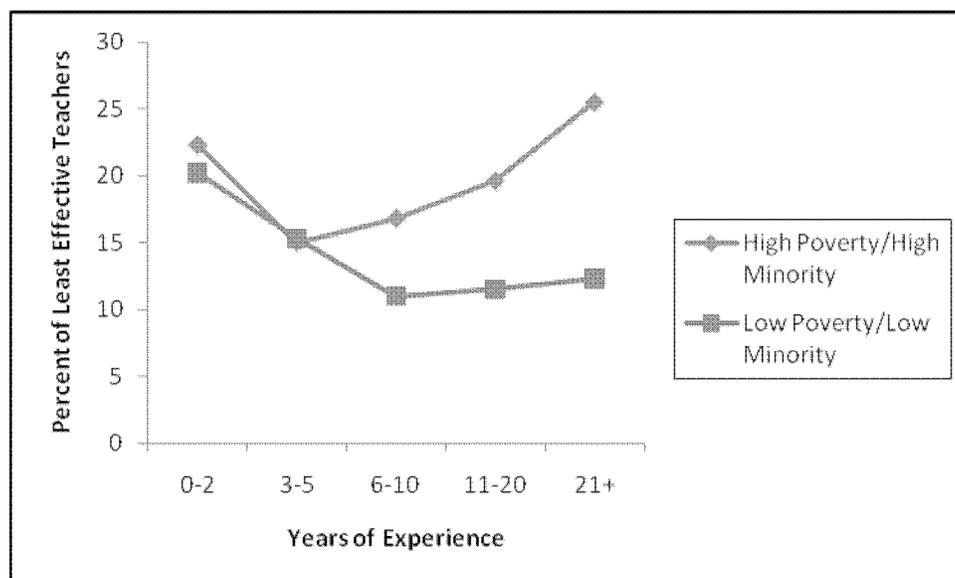
Among teachers with up to 5 years of experience:

- In both types of schools, teachers with 3-5 years of experience are much less likely to fall into the least effective category than teachers with up to 2 years of experience.

Among teachers with 6 or more years of experience:

- In high poverty/high minority schools, teachers are more likely to fall into the least effective category as they gain more experience. In low poverty/low minority schools, the percentage of teachers in the least effective category increases slightly. However, paralleling the trend discussed above for most effective teachers, the gap between teachers in high poverty/high minority schools and teachers in low poverty/low minority schools who fall into the least effective category widens as the teachers gain more experience.

**Figure 4A: Distribution of the Least Effective Teachers by Experience**



(SAS Institute Inc., 2009)

# Tennessee Race to the Top Appendix D-3-3



Tennessee Department of Education Official TVAAS Report 2010

Sample School System  
Sample School

Example Teacher  
Grade/Subject 4<sup>th</sup> Math

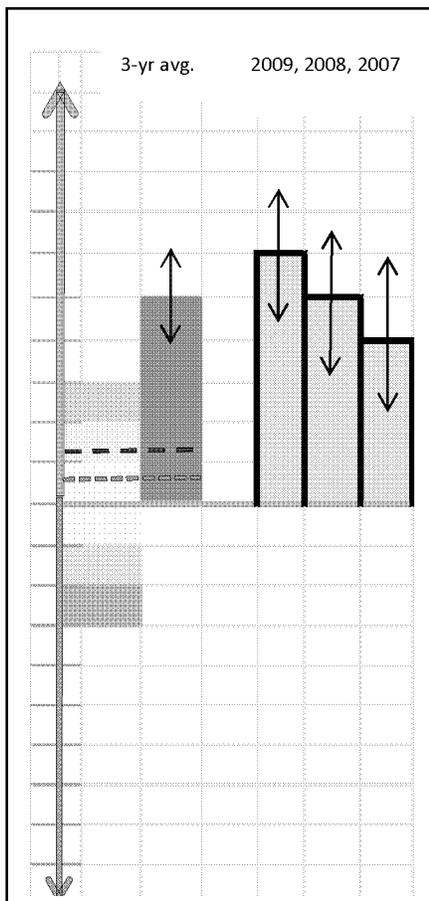
3-Year Average Estimated Progress = 5.0  
(Standard Error = 0.5)

3-Year Average Effectiveness, Level = Five

TVAAS Teacher Graph

TVAAS Teacher Table

STATE  
NCE  
UNITS



State  
Growth  
Standard

Legend	
	State Average
	System Average
Effectiveness Levels	
5	Teacher
4	3-yr 1-yr 2 Std Err
3	
2	1 unit = 1 NCE
1	

State 3-yr Avg	0.6
System 3-yr Avg	1.2
Teacher Progress Estimates and Standard Errors	
• Teacher 3-yr Avg	5.0(0.5)
• Teacher 2008	6.0(0.7)
• Teacher 2007	4.0(1.6)

(All metrics expressed in state NCE's reflecting a base year of 2009)

A teacher's value-added estimate is an indicator of how much the teacher influences his or her students' academic progress.

A teacher's standard error is a measure of the uncertainty around the teacher's estimate. The ratio of the teacher's estimate to the standard error of that estimate determines the teacher's effectiveness level. The areas of the teacher's graph to the left are shaded relative to the distance from the State 2009 Growth Standard.

The teacher's Effectiveness Level is Five, the highest level, because the teacher's estimate is more than twice the teacher's standard error. The educational outcome for the average student taught by this Level 5 teacher is that the student made decidedly more progress than the state growth standard of 2009.

**Rules for Level Determination**

- Level Five, Highly Effective: The ratio of the teacher's estimate to the teacher's standard error is 2 or greater.
- Level Four, Moderately Effective: The ratio of the teacher's estimate to the teacher's standard error is greater than 1 but less than 2.
- Level Three, Similar to the Tennessee Average in the reported subject: The teacher's estimate is near the state growth standard. The ratio of the teacher's estimate to the teacher's standard error is greater than -1 but less than +1.
- Level Two, Moderately Ineffective: The ratio of the teacher's estimate to the teacher's standard error is greater than -2 but less than -1.
- Level One, Ineffective: The ratio of the teacher's estimate to the teacher's standard error is less than -2)

**2009 Level Frequencies in the Reported Subject/Grade**

Level Five, Highly Effective	[N]
Level Four, Moderately Effective	[N]
Level Three, Average Effectiveness	[N]
Level Two, Moderately Ineffective	[N]
Level One, Ineffective	[N]

Small Rural  
XYZ Elementary

	Below Reference, Ineffective			Below Reference, Moderately Ineffective			At Reference, Average Effectiveness			Above Reference, Effective			Above Reference, Highly Effective	
	I			II			III			IV			V	
	2007	2008	2009	2007	2008	2009	2007	2008	2009	2007	2008	2009	2007	2008
	35%	17%	20%	0%	0%	0%	5%	44%	15%	5%	11%	0%	55%	28%
	35%	17%	20%	0%	0%	0%	5%	44%	15%	5%	11%	0%	55%	28%
	15%	15%	16%	15%	15%	14%	43%	43%	42%	13%	13%	13%	14%	15%

Reference for high school teachers is the state average teacher. For grades 4-8, it is the gain based on the state growth standard set in 2008-2009. Percentages are based on the number of teacher/subjects across grades. Teachers who teach in multiple tested subjects are counted separately for each subject in this report. The public report is an estimate based on all of the teacher's tested subjects.

**Level Determination**

- Highly Effective: The ratio of the teacher's estimate to the teacher's standard error is 2 or greater.
- Moderately Effective: The ratio of the teacher's estimate to the teacher's standard error is greater than 1 but less than 2.
- Average Effectiveness in the reported subject: The teacher's estimate is near the state growth standard.
- Approaching Average Effectiveness: The ratio of the teacher's estimate to the teacher's standard error is greater than -1 but less than +1.
- Below Average Effectiveness: The ratio of the teacher's estimate to the teacher's standard error is greater than -2 but less than -1.
- Ineffective: The ratio of the teacher's estimate to the teacher's standard error is less than -2)

**REPORTING**

Small Rural  
XYZ Elementary

Teachers by Teaching Effectiveness Category Across All Subjects and Grades, 2007 - 2009

	Level 1	Levels 2 and 3	Levels 4 and 5
	24%	21%	55%
	24%	21%	55%
	15%	57%	28%

Tennessee Race to the Top – Appendix D-3-5

**Table 1: Tennessee’s Plan for Equitable Distribution of Effective Teachers  
Reform Plan Criterion D(3)(i)**

<b>Goal: To ensure the equitable distribution of teachers and principals in high-poverty schools by developing a plan to ensure that students in high poverty schools have equitable access to highly effective teachers and principals and are not served by ineffective teachers and principals at higher rates than other students.</b>				
<b>For all of these activities, the responsible party will be the Tennessee Department of Education, in coordination with LEAs.</b>				
	Year 1 2010-11	Year 2 2011-12	Year 3 2012-13	Year 4 2013-14
<b>Teachers</b>	<p>Teacher effect scores reported electronically to teachers across the state (see example in Appendix D-3-3).</p> <p>Train teachers and principals on the interpretation of their electronic score reports.</p> <p>Recommend teachers and principals analyze teacher effect scores to measure progress.</p> <p>Training on new teacher evaluation system that includes student academic growth.</p>	<p>Train teachers and principals on the interpretation of their electronic score reports.</p> <p>Recommend teachers and principals analyze teacher effect scores to measure progress.</p>	<p>Provide teachers individualized professional development linked to their diagnostic component on teacher effect score report.</p>	<p>Provide teachers individualized professional development linked to their diagnostic component on teacher effect score report.</p>

	<p>Electronic dashboard provided to teachers to analyze student data for interventions with initial training.</p> <p>Training on dashboard: Incorporate training on State's Electronic Learning Center (ELC).</p>	<p>Continue training on electronic teacher effect scores and dashboard.</p> <p>Provide teachers individualized professional development linked to their diagnostic component on teacher effect score report.</p>	<p>Additional training as needed.</p>	<p>Additional training as needed.</p>
	<p>Participate in teacher working conditions survey (TWC) statewide.</p>	<p>Participate in second TWC survey statewide.</p> <p>Conduct TWC survey statewide, analyze results, and evaluate interventions.</p>	<p>Conduct TWC survey statewide, analyze results, and evaluate interventions.</p>	<p>Conduct TWC survey statewide, analyze results, and evaluate interventions.</p>

<p><i>Principals</i></p>	<p>Train principals on the interpretation and use of these electronic score reports and how they can inform evaluation, tenure, differentiated pay and roles, assignments, professional development, and dismissal.</p> <p>Implement school-level report of distribution of teacher effectiveness.</p> <p>Train principals on the interpretation and use of the school-level teacher effectiveness distribution reports.</p> <p>Training on new principal evaluation system that includes student academic growth.</p>	<p>Implement new teacher evaluation system, which includes use of teacher effect scores, and evaluate impact of teacher performance.</p> <p>Train principals on analyzing TWC survey results to improve working conditions to recruit, retain, and develop effective teachers and allow them to actualize their potential.</p> <p>Train principals on the interpretation and use of these electronic score reports and how to track changes in teacher performance after receiving interventions.</p> <p>Additional training as needed.</p>	<p>Implement second TWC survey statewide.</p> <p>Continue training on the interpretation and use of the school-level teacher effectiveness distribution reports and evaluate interventions.</p> <p>Continue to implement new teacher evaluation system, which includes use of teacher effect scores, and evaluate impact of teacher performance.</p> <p>Additional training as needed.</p>	<p>Continue training on the interpretation and use of the school-level teacher effectiveness distribution reports and evaluate interventions.</p> <p>Continue to implement new teacher evaluation system, which includes use of teacher effect scores, and evaluate impact of teacher performance.</p> <p>Additional training as needed.</p>
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<p><i>District Staff</i></p>	<p>Appropriate training on the interpretation and use of teacher effect score reports, school level teacher equity distribution reports, dashboard, and TWC survey to help support improved teacher and school effectiveness.</p> <p>Provide training to district staff on new teacher evaluation system.</p> <p>Training for new teacher and principal evaluation system that includes student academic growth.</p> <p>Provide technical assistance to participating LEAs identified with deficiencies in equitable distribution to incorporate strategies to address these deficiencies in their RTTT plans.</p> <p>Collaborate with federally funded resource centers to identify best district-level practices for improving inequitable distribution,</p>	<p>Require participating LEAs to evaluate principal assignments in light of AYP results, school value-added, and TWC survey results.</p> <p>Require districts to analyze district school-level teacher effectiveness distribution charts and evaluate progress to improve equitable distribution across the state and within individual schools. Revise strategies in RTTT plan when needed.</p> <p>Require participating LEAs identified with deficiencies in equitable distribution to implement strategies to address the deficiencies in their RTTT plans.</p> <p>Train district staff on analyzing TWC survey results to improve working conditions to recruit, retain, and develop</p>	<p>Require participating LEAs to evaluate principal assignments in light of AYP results, school value-added, and TWC survey results.</p> <p>Require districts to analyze district school-level teacher effectiveness distribution charts and evaluate progress to improve equitable distribution across schools. Revise strategies in RTTT plan when needed.</p> <p>Require participating LEAs identified with deficiencies in equitable distribution to implement strategies to address the deficiencies in their RTTT plans.</p> <p>Ensure that participating LEAs have high-quality induction programs for new teachers with mentoring and other support structures.</p> <p>Require districts to analyze school-level per pupil salary expenditure data to examine</p>	<p>Require participating LEAs to evaluate principal assignments in light of AYP results, school value-added, and TWC survey results.</p> <p>Require districts to analyze district school-level teacher equity distribution charts and evaluate progress to improve equitable distribution across schools. Revise strategies in RTTT plan when needed.</p> <p>Require participating LEAs identified with deficiencies in equitable distribution to implement strategies to address the deficiencies in their RTTT plans.</p> <p>Ensure that participating LEAs have high-quality induction programs for new teachers with mentoring and other support structures.</p> <p>Require districts to analyze school-level per pupil salary expenditure data to examine the extent to which school-level resources are</p>
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	<p>such as strategies for recruiting, hiring, assigning, and retaining effective teachers, as well as providing effective professional development. Disseminate to LEAs.</p> <p>Require participating LEAs to ensure that all teachers participate in the TWC survey.</p> <p>Ensure that participating LEAs have high-quality induction programs for new teachers with mentoring and other support structures.</p> <p>State will request from SAS (TVAAS) teacher effect data and analyze the distribution of teachers by effectiveness in high poverty and in low poverty schools in targeted districts.</p> <p>Require districts to analyze school-level per pupil salary expenditure data to</p>	<p>effective teachers and allow them to actualize their potential.</p> <p>Ensure that participating LEAs have high-quality induction programs for new teachers with mentoring and other support structures.</p> <p>Require districts to analyze school-level per pupil salary expenditure data to examine the extent to which school-level resources are distributed equally within their districts</p> <p>Additional training as needed.</p>	<p>the extent to which school-level resources are distributed equally within their districts.</p> <p>Additional training as needed.</p>	<p>distributed equally within their districts.</p> <p>Additional training as needed.</p>
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	examine the extent to which school-level resources are distributed equally within their districts.			
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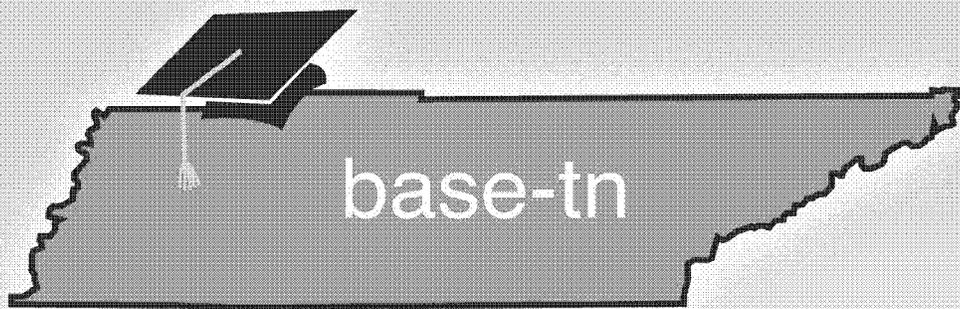
**Table 2: Tennessee’s Plan for Increasing the Numbers of Effective Teachers in Shortage Areas  
Reform Plan Criterion D(3)(ii)**

<b>Goal: To increase the number and percentage of effective teachers teaching hard-to-staff subjects and specialty areas (mathematics, science, special education and English as a Second Language (ESL)) and to decrease the number and percent of waivers in those four areas.</b>				
<b>For all activities, the responsible party will be the Department of Education</b>				
	<b>Year 1 2010-11</b>	<b>Year 2 2011-12</b>	<b>Year 3 2012-13</b>	<b>Year 4 2013-14</b>
<b><i>Math and Science</i></b>	Provide training to all teachers on dashboard and teacher effect score reports.  Encourage participating LEAs to provide incentives allowable under the state’s differentiated pay law to attract and retain teachers in these hard-to-staff subjects.	Continue differentiated pay strategies and evaluate.  Continue training on electronic teacher effect scores and dashboard.	Continue differentiated pay strategies and evaluate.  Continue training on electronic teacher effect scores and dashboard.	Continue differentiated pay strategies and evaluate.  Continue training on electronic teacher effect scores and dashboard.

<p><b><i>ESL and Special Education</i></b></p>	<p>Provide training to all teachers on dashboard.</p> <p>Develop teacher effectiveness measures for both special education and ESL teachers.</p> <p>Encourage participating LEAs to provide incentives allowable under the state's differentiated pay law to attract and retain teachers in these hard-to-staff subjects.</p>	<p>Continue differentiated pay strategies and evaluate.</p> <p>Continue training on electronic dashboard.</p> <p>Implement teacher effectiveness scores for ESL and special education teachers and disseminate results and provide training on use and interpretation.</p>	<p>Continue differentiated pay strategies and evaluate.</p> <p>Continue training on teacher effectiveness scores.</p> <p>Continue training on electronic dashboard.</p>	<p>Continue differentiated pay strategies and evaluate.</p> <p>Continue training on teacher effectiveness scores.</p> <p>Continue training on electronic dashboard.</p>
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**BASE-TN**

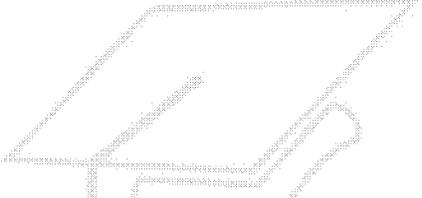
Become A  
**Special Educator**  
in Tennessee



**BASE-TN**  
**Teaching Program**

As Amended, November 2009

**TENNESSEE DEPARTMENT OF EDUCATION**  
**DIVISION OF SPECIAL EDUCATION**



**BASE-TN**

# Become A Special Educator in Tennessee

*Become A Special Educator in Tennessee Teaching Program* is a program that provides limited financial support for persons who meet the eligibility criteria and desire to earn an initial Tennessee teacher license in special education or an endorsement in special education. This support involves a commitment to teach in a Tennessee public school two years for each academic year of financial support received, serving students with disabilities ages birth through twenty-one.



Tennessee Department of Education, Division of Special Education  
Joseph Fisher, Assistant Commissioner  
7th Floor, Andrew Johnson Tower  
710 James Robertson Parkway  
Nashville, TN 37243-0380



# **BASE-TN Teaching Program**

## **As Amended, November 2009**

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- I. Introduction: Purpose of the BASE-TN Teaching Program, Participating Universities and Application Submittal by Interested Scholars
- II. General - Definitions as Used in the BASE-TN Teaching Program
- III. General - Terms of the Traineeships, Fellowship Grants and Application Submittal
- IV. Eligibility
- V. Method of Selection
- VI. Amounts and Terms of Awards
  - Student Service Agreements
  - Tuition Payments
  - Cancellation
  - Repayment
- VII. Appeals Procedure
- VIII. Precedence of the Acts
- IX. How to Apply for BASE-TN Assistantships and Scholarships
- X. For Additional Information

Appendix A - List of College and University Representatives or Contact Persons

Appendix B - BASE-TN Teaching Program Application

## **OVERVIEW**

In an effort to recruit professional personnel to the field of special education who are interested in teaching in the Tennessee public schools and serving students with disabilities, the Division of Special Education within the Tennessee Department of Education is offering financial assistance to post-baccalaureate and undergraduate students who meet the eligibility criteria presented in Section IV of this document. This financial assistance is in keeping with the provisions of Part B of the Individuals with Disabilities Education Act, as amended (IDEA or ACT) and T.C.A., Title 49-10-110, hereinafter referred to as the **BASE-TN Teaching Program** or The Program.

### **I. INTRODUCTION**

- A. The BASE-TN Teaching Program** provides limited financial assistance in the form of **tuition remission** for either part-time or full-time study to professional personnel who desire to work in programs for the education of children with disabilities. The **purpose** of the program is to help professional personnel meet licensure requirements in the area of Special Education. Participation in the program is limited to (a) post-baccalaureate candidates admitted to teacher education programs (or eligible to be admitted and/or have provided written intent to seek admission) in approved Tennessee colleges and universities, and (b) educational assistants or para-professionals with at least two years of transferable college credit in an area of special education who are currently employed by a Tennessee public school and serve students with disabilities ages birth through twenty-one. These candidates must seek Tennessee initial licensure in Special Education or an endorsement in Special Education. The financial award entails a commitment to full-time teaching two years in a Tennessee public school for each academic year the award is received. The **goal** of the BASE-TN Teaching Program is to help increase the number of fully licensed Tennessee teachers, including speech-language pathologists, serving students with disabilities in Tennessee public schools. See also Section IV (Eligibility) and Section V (Method of Selection).

**BASE-TN Teaching Program funds may not be used to support out-of-state tuition/fees, other student fees (e.g., parking fees, laboratory fees, online/distance education/technology fees, etc.) or purchase textbooks.**

- B. The following Tennessee colleges and universities have approved teacher education programs**, including special education, and participate in the BASE-TN Teaching Program under these guidelines and criteria developed jointly by the Tennessee Department of Education, Division of Special Education, and the Tennessee Interagency Professional Educators Consortium (TIPEC):

Cumberland University  
East TN State University

Lebanon  
Johnson City

Fisk University	Nashville
Freed-Hardeman University	Henderson
Lambuth University	Jackson
LeMoyne-Owen College	Memphis
Middle Tennessee State University	Murfreesboro
Tennessee State University	Nashville
Tennessee Technological University	Cookeville
University of Memphis	Memphis
University of Tennessee - Chattanooga	Chattanooga
University of Tennessee - Knoxville	Knoxville

All participating universities and colleges will, at the end of each semester, provide the Department of Education, Division of Special Education, with rosters of program participants, including students completing the special education programs, type Tennessee special education license the participants have applied for and received, efforts made by the scholars to find employment in a Tennessee public school, and/or written employment verification. All program participants will be advised to search for Tennessee teaching positions as well as post their resumes on the Tennessee Department of Education’s online recruitment service, *Teach Tennessee* ([www.tnteachingjobs.org](http://www.tnteachingjobs.org)), during the last semester of their programs. Tennessee schools will be encouraged to use *Teach Tennessee* to post job announcements and to view resumes of potential teacher candidates and speech-language pathologists who have participated in this program.

See Appendix A for a list of the college and university representatives and relevant contact information.

- C. **Aspiring special education teachers and post-baccalaureate level speech-language professionals interested in applying for BASE-TN Teaching Program financial assistance are encouraged to submit applications** to one of the participating colleges or universities in keeping with the deadlines and other requirements as set forth by that institution. See Appendix A for a list of the participating institutions, the representatives, and other contact information. See also Section IX: How to Apply for BASE-TN Assistantships and Fellowships.

## II. GENERAL - Definitions as Used in the BASE-TN Teaching Program

- A. **“Academic year of BASE-TN financial support”** consists of 30 semester hours of support - typically eight or nine months - composed of two semesters, three quarters or two trimesters of instruction. However, the 30 semester hours may be completed during 12 months, 18 months or some other time frame in keeping with the student's approved Plan of Study or Individualized Licensure Plan. **“One academic year of BASE-TN financial support”** consists of 27 semester hours of support for Master’s level speech-language pathology (SLP) students. (Amended 7.25.06)
- B. **“Act”** refers to the Individuals with Disabilities Education Act, as amended, 20 U.S.C. 1400 et seq.

- C. **"Areas of Special Education"** include Preschool/Early Childhood PreK-1; Hearing PreK-12; Vision PreK-12; Speech/Language PreK-12; Modified K-12; and Comprehensive K-12.
- D. **"Certification of Eligibility for Federal Assistance"** refers to the written certification by the applicant indicating ( a ) that he/she does not owe a debt, is current in repaying a debt, or is not in default (as the term is used in 34 CFR Part 668) on a debt to the Federal Government under a procurement transaction (e.g., a previous loan, scholarship, grant, or cooperative agreement) or for a fellowship, scholarship, stipend, discretionary grant or loan in any program of the Education Department (ED) that is subject to 34 CFR 75.60, 75.61 and 75.62; OR (b) that he/she has made arrangements satisfactory to the ED to repay the debt; and (c) that he/she has not been declared by a judge, as a condition of sentencing under section 5301 of the Anti-Drug Abuse Act of 1988, ineligible to receive Federal assistance for the period of the requested funding.

Programs subject to 34 CFR 75.60, 75.61 and 75.62 include the following:

- √ Federal Pell Grant Program (20 U.S.C. 1070a, et seq.);
- √ Federal Supplemental Educational Opportunity Grant (SEOG) Program (20 U.S.C. 1070(b), et seq.);
- √ State Student Incentive Grant Program (SSIG) 20 U.S.C. 1070c. et seq.);
- √ Federal Perkins Loan Program (20 U.S.C. 1087aa. Et seq.);
- √ Income Contingent Direct Loan Demonstration Project (20 U.S.C. 1087a, note);
- √ Federal Stafford Loan Program, Federal Supplemental Loans for students [SLS], Federal PLUS, or Federal Consolidation Loan Program (20 U.S.C. 1071, et seq.);
- √ William D. Ford Federal Direct Loan Program (20 U.S.C. 1087a, et seq.);
- √ Cuban Student Loan Program (20 U.S.C. 2601, et seq.);
- √ Robert C. Byrd Honors Scholarship Program (20 U.S.C. 1070d-31, et seq.);
- √ Jacob K. Javits Fellows Program (20 U.S.C. 1134h-1134i);
- √ Patricia Roberts Harris Fellowship Program (20 U.S.C. 1134d-1134g);
- √ Christa McAuliffe Fellowship Program (20 U.S.C. 1105-1105i);
- √ Bilingual Education Fellowship Program (20 U.S.C. 3221-3262);
- √ Rehabilitation Long-Term Training Program (29 U.S.C. 774(b));
- √ Paul Douglas Teacher Scholarship Program (20 U.S.C. 1104, et seq.);
- √ Law Enforcement Education Program (42 U.S.C. 3775);
- √ Indian Fellowship Program (29 U.S.C. 774(b));
- √ Teacher Quality Enhancement Grants Program (20 U.S.C. 1021, et seq.)

- E. **"Eligible schools"** are those state-approved Tennessee *public schools*, including the State Special Schools, where recipients may teach for credit toward their service obligations, serving children with disabilities ages birth through 21.

- F. “Exit Certification”** refers to the process wherein a certificate is provided scholars who complete their Plans of Study and satisfy special education licensure requirements. The certificate is provided by the institution and must identify (a) the number of years the scholar must work to fulfill his or her work requirements; (b) the total amount of the BASE-TN financial assistance received subject to the work-or-repay requirements; (c) the time period during which the scholar must satisfy the work requirements; and (d) employment related information indicating the scholar’s intent to work in a Tennessee public school serving students with disabilities two years for each year of financial report received under the Program. The Exit Certificate ***MUST*** be signed by the student and the institution representative.
- G. “Full time student”** is a student admitted to (or has provided written intent to seek admission) the teacher education program of one of the approved participating Tennessee colleges or universities and is enrolled in and making satisfactory progress in a minimum of **12 semester hours (undergraduate program) and 9 semester hours (graduate program). (Amended 7.25.06)**
- H. “Full-time teaching”** is instruction (teaching) wherein a minimum of 80% of the recipient’s weekly workload is devoted to teaching students with disabilities who are enrolled in an approved Tennessee public school, exclusive of administrative, counseling or other assigned duties.
- I. “Full year of teaching service”** shall be the ten-month contract period or its equivalent (two complete semesters) of full-time teaching service in an approved Tennessee public school.
- J. “Grace period”** is a period of SIX months that shall begin on the date the student completes his/her Plan of Study in which repayment is not required. If the recipient does not fulfill his/her obligation to teach special education or serve as a speech-language pathologist in accordance with the written agreement, the traineeship or fellowship grant will be treated as a loan, with interest accruing from the date of original award.
- K. “Letter of recommendation”** is a letter attesting to (a) the student's perceived potential to successfully complete the coursework and other requirements leading to initial Tennessee licensure in special education or to an endorsement in special education, (b) the student’s perceived or stated commitment to teaching in an area of special education in a Tennessee public school following the completion of the program, and (c) the student's perceived or demonstrated potential for success as a teacher or related services provider in a Tennessee public school.
- L. “Payback” or “repayment”** refers to monetary repayment of BASE-TN financial assistance received in lieu of completion of a service obligation.
- M. “Plan of study”** is a plan of enrollment in specific coursework not to exceed **three academic years** in which the scholar will complete all coursework and other requirements for an initial Tennessee teacher license in special education or an endorsement in special education.

- N. **“Repayment period”** is a period in which the award will be repaid and shall begin at the end of the grace period or whenever the awarding Tennessee university or college determines that the recipient has not complied with the requirements of the Program.
- O. **“Promissory Note” (as used in the BASE-TN Program) is a legal financial document between the BASE-TN scholarship recipient and the State of Tennessee that sets forth the amount of funds the scholar will repay the State of Tennessee should he or she default in his/her responsibilities and work obligations as defined in the Student Service Agreement and the BASE-TN Guidelines. The Note defines the conditions that constitute default. Upon fulfillment of the agreed upon responsibilities and work obligations, the note becomes null and void.**
- P. **“Satisfactory progress”** is a standard of progress toward completion of the pursued approved Plan of Study during which time the scholar maintains the standards set by the participating university's Teacher Education Program/Speech-Language Department. (“Student Progress Forms” will be provided by the involved college or university, and these forms must be completed at the end of each semester by the BASE-TN supported students. Copies will be forwarded to the TN Department of Education, BASE-TN Office.)
- Q. **“Scholar”** refers to an individual who is pursuing a special education degree, license, or endorsement and who receives scholarship or financial assistance through the BASE-TN Teaching Program.
- R. **“Service obligation”** refers to a scholar’s employment\* obligation to serve in an approved Tennessee *public* school two years for each 30 semester hours of financial support (or portion thereof) serving students with disabilities ages birth through twenty-one. **“Service obligation” for Master’s level speech-language pathology scholars** refers to a scholar’s employment\* obligation to serve in an approved Tennessee public school two years for each 27 semester hours of financial support (or portion thereof) serving students with disabilities ages birth through twenty-one.
- \*Scholar must be fully licensed as a teacher of special education or a speech-language pathologist. Employment while serving on a permit, waiver, interim license or alternative license does not enable the scholar to fulfill his/her service obligation under BASE-TN.**
- S. **“Statement of intent”** is a signed statement from a candidate certifying his or her intent (a) to become a special education teacher or speech-language pathologist in a public state-approved Tennessee school system serving children with disabilities ages birth through 21, and (b) to comply with the requirements of the BASE-TN Teaching Program as set forth in these Guidelines.

- T. “Student Service Agreement” is a signed and notarized formal agreement between the scholar who is a BASE-TN Teaching Program award recipient, the involved university or college and the Tennessee Department of Education. This Agreement, which consists also of a Promissory Note by reference, delineates the scholar’s service obligations in a Tennessee public school serving students with disabilities ages 0 – 21 upon completion of the approved Plan of Study leading to teacher licensure in special education or speech-language pathology. The SSA defines the “work or repayment” requirements of the BASE-TN Program. The scholar is required to work full-time in a Tennessee public school as a fully licensed teacher/speech-language pathologist two years for each year of tuition support received. The service obligation requirement cannot be satisfied by scholars serving on an Alternative Teacher License, permit or waiver.
- U. “The BASE-TN Teaching Program” is the Become A Special Educator in Tennessee Program, sponsored by the Tennessee Department of Education, Division of Special Education, in keeping with the mandates of IDEA, and T.C.A. §49-10-110 designed to help increase the number of properly licensed Tennessee teachers, including speech-language pathologists, who serve students with disabilities ages birth through twenty-one.

### III. GENERAL - Terms of the Traineeships, Fellowship Grants and Application Submittal

- A. To be eligible for an award, all participating students *MUST* attend one of the Tennessee colleges or universities listed in (I-B) above and make satisfactory progress in keeping with the students' approved Plans of Study or Individualized Licensure Plans as determined by the institutions' written policies.
- B. Funds received from this program are considered financial assistance for purposes of determining student aid eligibility under programs authorized by Title IV of the Higher Education Act of 1965, as amended.
- C. All such grants or awards shall be evidenced by signed and notarized Student Service Agreements (SSAs) and signed Promissory Notes in amounts equivalent to the tuition expended on the scholar’s behalf. The Notes will be conditioned upon the scholar providing two years of service as a fully licensed speech-language pathologist or teacher of students with disabilities ages 0 – 21 for each academic year of BASE-TN financial support received or portion thereof as a participant in the Become A Special Educator in Tennessee Program (BASE-TN Program) with all service being provided in a Tennessee public school as an employee of the said district, including the State Special Schools. *(See Part II of this document for the definition of “academic year of BASE-TN financial support.”)* **Upon fulfillment of the aforementioned condition, the obligation of the scholar will be discharged and the note will be voided.**

The original copies of the Student Service Agreements and the Notes must be maintained by the teacher education program or speech-language department of the Tennessee colleges or universities where the recipients are enrolled with copies of the Notes forwarded to the Tennessee Department of Education, Division of Special Education, at the end of each semester (fall, spring and summer).

The Student Service Agreement and the Promissory Note will be provided by the participating college or university as part of each applicant's admission requirements. The Promissory Note *MUST* be signed EACH semester that the scholar receives BASE-TN support.

- D. All applications received and approved shall be subject to the availability of funds. BASE-TN funds are designed to provide financial ASSISTANCE in the form of tuition remission.
- E. Applications must be submitted to the college and university representatives by the designated deadlines as determined by the participating colleges and universities. See Appendix B for a copy of the BASE-TN Teaching Program Application. See Appendix A for the application due dates at the participating institutions.
- F. Upon program completion, the BASE-TN scholar *MUST* submit written employment verification to the BASE-TN Director at the end of each semester, ceasing when the service obligation has been satisfied.

#### IV. ELIGIBILITY

The successful applicant *MUST* meet the following criteria:

- A. Citizen, national or permanent resident of the United States and resident of Tennessee. Successful applicants may also reside in a contiguous state; however these applicants who reside in contiguous states *MUST* be *CURRENTLY* employed in a Tennessee school system. All full time BASE-TN supported students must reside in Tennessee.



Applicants who seek BASE-TN support through participating private and independent colleges and universities must also satisfy the residency requirement. These applicants must reside in the state of Tennessee a minimum of 12 consecutive months prior to receiving BASE-TN Support. (Amended 03.27.09)

- B. Satisfy the eligibility criteria for a First Priority or a Second Priority candidate as defined in Section V of these Guidelines.
- C. Admitted to the undergraduate or graduate program of one of the participating Tennessee colleges and universities listed in (I-B) above, depending upon the student's current status. A candidate with less than a Bachelor's degree should be admitted to the undergraduate program as a degree seeking student in an area of special education. A candidate with a Bachelor's degree should be admitted to the graduate school as a degree seeking or non-degree seeking student.
- D. Admitted to the teacher education program during the second semester of enrollment to continue receiving BASE-TN financial support. Preference will be given to candidates whose Plans of Study reflect intended admission to the teacher education program by the beginning of the second semester of enrollment. Preference will also be given to candidates who have successfully passed PRAXIS I, meet the ACT/SAT requirements and/or satisfy the GPA, MAT and/or GRE requirements of the involved university or college.

- E. Not hold a Tennessee teacher's license in an area of special education. (**NOTE:** Speech-Language Pathology candidates *MUST* hold a minimum of a Bachelor's degree in Speech-Language.) Also, see item (O) of this Section that clarifies the relationship between financial support through the Tennessee Special Education Institutes and financial support through the BASE-TN Teaching Program. (Amended 08.20.04)
- F. Submit a signed and notarized Student Service Agreement to the Tennessee college or university where admitted to the undergraduate or graduate program, indicating intent to teach in a state-approved Tennessee public school, serve children with disabilities ages birth through 21 on a full-time basis two years for each year (FTE) an award is received, and express intent to comply with all other requirements as delineated in the guidelines and regulations that govern the BASE-TN Teaching Program.
- G. Submit a signed Promissory Note each semester tuition remission is received, with the understanding that the Notes will be voided upon fulfillment of the service obligations to the State of Tennessee as defined in the BASE-TN Guidelines.
- H. Submit a copy of the approved Plan of Study developed cooperatively with the certification officer (or other such representative of the college or university) where the candidate intends to study. The approved Plan of Study must include the signature of the certification officer or other such representative of the college or university.
- I. Not accept any other financial aid that carries with it a conflicting service obligation. For the purposes of the BASE-TN Teaching Program, participation in the Minority Teaching Fellows Program shall be considered as accepting aid which carries a conflicting service obligation. Prior recipients of the Teacher Loan/Scholarship Program, the Teacher Loan Program for Disadvantaged Areas of Tennessee, and Tennessee's Special Education Institutes may be eligible for the BASE-TN Teaching Program, although funds may not be received from two or more programs during any one academic year. Students may receive BASE-TN Teaching Program support from one college or university only. Also, see item (O) of this Section. (Amended 8.20.04)
- J. Submit a complete application to the representatives of the college or university of choice by the established deadlines as determined by the participating colleges and universities. See section (I-B) above for a list of the participating colleges and universities. See Appendix A for a list of the college and university representatives and the application due dates. The application must include all required supporting documents (e.g., copies of college transcripts).

**NOTE: Applicants should not send the BASE-TN Teaching Program Applications to the Tennessee Department of Education.**

See Appendix B for a copy of the BASE-TN Teaching Program Application. The application may also be obtained from the college and university representatives

listed in Appendix A of this document, or it may be downloaded at the following site: [www.state.tn.us/education/speced/](http://www.state.tn.us/education/speced/)

- K** Agree to inform the Tennessee college or university (where enrolled) and the Tennessee Department of Education, Division of Special Education, in writing when any significant change in status occurs and provide documentation to support it. This shall include, but is not limited to, changes in name, address, and enrollment. After obtaining teacher licensure, the recipient shall also inform the Tennessee college or university where a Plan of Study was completed when a teaching position has been obtained, when there are changes in teaching assignments, or if/when the teaching service is terminated. The recipient is required to submit written employment verification each semester, ending when the service obligations have been satisfied.
- L.** Shall not be in default on any loan received to attend a postsecondary institution and can provide written evidence.
- M.** Shall complete and sign a Certification of Eligibility for Federal Assistance. (Form will be provided by the grantee institution.) Also, see item (D) in Part II – General Definitions.
- N.** Upon completion of Program of Study and meeting requirements for Tennessee teacher licensure, including speech-language pathology, participants **MUST**:
  - 1.** Post their resumes with the Department of Education's online teacher recruitment service, *Teach Tennessee* ([www.tnteachingjobs.org](http://www.tnteachingjobs.org)).
  - 2.** Send a copy of their resumes to: TN Department of Education; Division of Special Education; Attn: Dr. Cleo Harris; 7<sup>th</sup> Floor, Andrew Johnson Tower; 710 James Robertson Parkway; Nashville, TN 37243-0380. These resumes will be distributed to Tennessee public school systems and State Special Schools.
  - 3.** Complete and sign the BASE-TN Program Exit Certificate. The institution where the scholar completed the program must provide the following information on the Exit Certificate:
    - a.** The number of years the scholar needs to work to satisfy the work requirements;
    - b.** The total amount of BASE-TN scholarship or financial assistance received subject to the requirements of this Program;
    - c.** The time period during which the scholar must satisfy the work requirements/service obligation; and
    - d.** All other obligations of the scholars as defined by the institution.

Upon receipt of the information listed immediately above, the scholar must provide written certification to the grantee institution that the information included in the Exit Certificate is correct.

The Exit Certificate will be retained by the institution where the student completed his or her Plan of Study, with a copy provided the scholar. A copy MUST also be forwarded to the Tennessee Department of Education.

**NOTE:** If a scholar elects not to fulfill his/her service obligation under the BASE-TN Teaching Program, the grantee institution must notify the State of Tennessee, Department of Education.

- O. Shall not be receiving, or eligible to receive, support through the Tennessee Special Education Institutes.
  - 1. Individuals currently employed as special education teachers or related services personnel (e.g. speech-language pathologist, OT, PT, etc.) and serving on a permit, waiver, or interim/alternative license are NOT eligible for BASE-TN Teaching Program financial support. (Amended 8.20.04)
  - 2. Scholars currently receiving BASE-TN Teaching Program tuition support who are offered employment in a Tennessee public school serving students with disabilities ages birth through twenty-one PRIOR to completion of their Plans of Study remain eligible for BASE-TN support provided the scholars continue satisfying all other requirements of the college or university where they are enrolled as BASE-TN Teaching Program recipients. (Amended 8.30.05)
  - 3. Individuals who are currently eligible for financial support through the Tennessee Special Education Institutes are NOT eligible for BASE-TN Teaching Program financial support. (Amended 8.20.04)
  - 4. Individuals currently receiving, or eligible to receive, support through the Tennessee Special Education Institutes are not eligible to "switch to" the BASE-TN Teaching Program for financial support. (Amended 8.20.04)
  - 5. Individuals currently receiving support through the BASE-TN Teaching Program are not eligible to "switch to" the Tennessee Special Education Institutes. Should BASE-TN recipients elect to "switch to" support through the Tennessee Special Education Institutes, such recipients will be required to comply with the repayment provisions of the BASE-TN Guidelines as defined in Section VI, Part D. (Amended 12.01.07)
- P. Participate in BASE-TN Information sessions provided by the grantee institutions at least once per semester.

## V. METHOD OF SELECTION

- A. Each year that funds are available, preliminary ratings of applications will be made two or more times per year by the College and University Selection Committees based upon established criteria for participation in the BASE-TN Teaching Program. The College and University Selection Committees will review the top rated candidates to determine the final selections. Each Selection

Committee **MUST** include at least one representative from the Tennessee Department of Education. The Tennessee Department of Education, BASE-TN Office, may request copies of the applications to determine funding needs and trends critical to the efficiency of The Program.

- B.** The following priority groups have been established for the BASE-TN Teaching Program:
- 1.** **First priority** shall be given to candidates with a Bachelor's degree or higher whose approved Plans of Study indicate intent to complete all remaining course work and other requirements for Tennessee licensure in an area of special education within 12 to 24 calendar months from effective date of original award. This first priority includes "career switchers" or persons with a major other than an area of special education who now seek to obtain Tennessee teacher licensure in an area of special education (e.g., persons who hold a degree in general psychology, English, or elementary education). Speech-language pathology applicants **MUST** hold a minimum of a Bachelor's degree in speech-language pathology or have completed 21 hours of prerequisite coursework in speech-language pathology. The BASE-TN Teaching Program will provide financial support in the form of tuition remission to complete licensure requirements as reflected in each student's Plan of Study. The extent of the tuition support provided will be determined by the availability of funds at the participating institutions.
  
  - 2.** **Second priority** shall include persons who (a) are currently working full-time as an educational assistant or para-professional in a Tennessee approved public school, (b) have earned at least two years of transferable college credit in an area of special education, (c) are currently serving students with disabilities on a full-time basis, and (d) submit written intent to earn a Bachelor's degree in special education **within a maximum of three calendar years**. The BASE-TN Teaching Program will provide financial support in the form of tuition remission, assisting the scholar in completing graduation requirements leading to an initial Tennessee teacher license in special education as reflected in the scholar's Plan of Study. Second priority students will be required to begin fulfilling their service obligations as full-time teachers of special education in keeping with the BASE-TN Guidelines upon completion of the Bachelor's degree. Second priority program completers (i.e., scholars with a Bachelor's degree) will be ineligible for additional BASE-TN financial support. The extent of the tuition support provided will be determined by the availability of funds at the participating institutions. BASE-TN funds may not be used to support scholars in pursuit of a Bachelor's degree in speech-language pathology, nor the pre-requisite courses required of speech-language pathology majors.

- C. The **ranking of applicants** must consider grade point average, prior teaching experience with children with disabilities, number of semester hours required to satisfy requirements for a Tennessee teacher license in special education, and teacher shortage areas within the field of Special Education. Criteria for applicant rankings may also include standardized test scores, evidence of commitment (e.g., experiences that would indicate an interest in teaching students with disabilities), and other such factors that shall be identified as relevant to meeting the goals and interests of the BASE-TN Teaching Program.

## VI. AMOUNTS AND TERMS OF BASE-TN TEACHING PROGRAM AWARDS



- A. The BASE-TN Program is designed to **prevent** students from needing to obtain loans. If the students/BASE-TN recipients nonetheless obtain a loan, the BASE-TN support will be reduced in the amount of the loan. (The specific award adjustments will be determined by the BASE-TN Directors/Principal Investigators.) Each BASE-TN Grantee Institution must stipulate on the Financial Authorization Form that the BASE-TN awardees **cannot** receive BASE-TN monies as a refund. (Amended 01.01.09)
- B. **All such grants or awards shall be evidenced by signed and notarized Student Service Agreements and Promissory Notes\*** maintained by the Teacher Education Program, Special Education Department, and/or Speech-Language Department of the Tennessee college or university where the recipients are enrolled with a roster of the students forwarded to the Tennessee Department of Education, Division of Special Education, at the end of each semester (fall, spring and summer). The maximum award available to any student shall be established each semester consistent with the student's approved Plan of Study. *The BASE-TN Teaching Program will provide support in the form of tuition remission. BASE-TN Teaching Program funds may not be used to pay out-of-state fees/tuition, and other fees such as parking fees, lab fees, online/distance education fees or pay for textbooks. (\*For additional information pertaining to the Promissory Note requirements and how the financial obligations of the scholar may be voided, see Part III, item "C" above.)*

The amount of the BASE TN Teaching Program award shall be determined by the number of semester hours carried by the student and the amount of funds available for the BASE-TN Teaching Program at the participating institution where the student is enrolled. The participating institution determines the specific amount of BASE-TN Teaching Program funds that may be awarded to the eligible students for *tuition support*. Students awarded BASE-TN Teaching Program support will be responsible for other matriculation costs, including textbooks, fees (e.g., parking fees, on-line fees, computer lab fees, technology fees, laboratory fees, etc.), meals, out-of-state-fees/tuition, housing, copying, and other related expenses. BASE-TN Teaching Program assistance will be awarded in keeping with the current requirements and provisions of the granting agency, the Tennessee State Department of Education.

- C. **Payments\*\* for the eligible students' tuition will be provided one semester at a time** payable to the college or university where the students are enrolled. Prior to disbursing the funds for a student, the institutions shall ensure that (1) the recipient continues to be enrolled in a teacher education program for the number of hours outlined in the students' approved Plan of Study; (2) the student has signed a Promissory Note for the tuition amount required in the current semester; and (3) that the recipient is making satisfactory progress in accordance with the goals of the BASE-TN Teaching Program and the written requirements of the institutions' teacher education programs/speech-language department.

**\*\*The amount of the BASE-TN Teaching Program awards for tuition at participating private and independent colleges and universities SHALL NOT exceed the current rate at the Tennessee Board of Regents' Universities. BASE-TN Teaching Program candidates MAY be encouraged to seek other financial assistance through application for Pell Grants, student loans, and other sources to account for the difference between the BASE-TN award and the tuition at the involved private or independent college or university, consistent with the requirements of that institution of higher education.**

D. **Cancellation**

1. For each two years of creditable full-time teaching service, as defined in these Guidelines, the recipient/scholar shall receive cancellation credit of one academic year's award (i.e., the equivalent of 30 semester hours for special education teachers, and the equivalent of 27 semester hours for speech-language pathologists).
2. Cancellation shall apply only if the recipient/scholar **completes** a Plan of Study leading to a Tennessee teacher license in an area of special education/speech-language pathology (i.e., initial teaching license or an endorsement) and subsequently teaches special education or serves as a speech-language pathologist in an approved Tennessee public school serving students with disabilities ages birth through 21. ***(NOTE: Scholars who are employed by private agencies who are in a contractual arrangement with a Tennessee public school system or State Special School are NOT eligible for cancellation. The recipient/scholar must be employed by an approved Tennessee public school system or Tennessee State Special School.)***
3. A grace period of SIX months may be granted to allow the recipient the opportunity to secure employment to begin cancellation credit. When a recipient has obtained a creditable teaching position, some or all of the grace period may be waived at his or her written request forwarded to the teacher education program or speech-language department of the college or university where the scholar completed the approved Plan of Study.
4. Recipients who believe that they are employed in teaching positions which qualify them for cancellation credit must notify the Tennessee college or university where the program was completed of that teaching status. Those individuals the institutions determine to be in a creditable full-time teaching

position shall be granted a postponement on repayment to allow them the opportunity to complete two full years of teaching for each year of BASE-TN Teaching Program financial support. Upon completion of said years of teaching, cancellation credit will be applied upon receipt of the verification of such service.

5. Fractions of a year of less than one semester as a teacher of special education/speech-language pathologist will not be credited toward cancellation. Recipients who have completed a single semester of creditable full-time teaching service may request a postponement of up to one year to allow them the opportunity to secure another special education teaching position in Tennessee. Cancellation credit will then be applied upon receipt of verification of the completion of such service.
6. The debt shall be canceled in case of the death of the recipient.
7. If a recipient is determined to be totally and permanently disabled under the standards established by T.C.A. for determining disability for members of the Tennessee Consolidated Retirement System, the outstanding debt shall be canceled. A recipient is not considered totally and permanently disabled on the basis of a condition that existed prior to his/her application unless the recipient's condition has substantially deteriorated since he/she submitted the application. If at any time subsequent to an initial determination of disability the recipient's condition improves to the point where a total and permanent disability no longer exists, the institution may reinstate any outstanding obligations previously canceled.
8. The amount of this award plus interest may not be discharged in a bankruptcy filed during the first seven years after the repayment of the award first becomes due (exclusive of any periods of deferment or other authorized suspension of the repayment period).

#### **E. Repayment**

1. The award must be repaid should the recipient choose not to honor the terms and conditions of the Student Service Agreement and the guidelines that govern the BASE-TN Teaching Program.
2. The amount of the award or scholarship that has not been retired through eligible service will constitute a debt to the State of Tennessee that **MUST** be repaid by the scholar and may be collected by the State of Tennessee. Repayment will include the full amount of the award received plus interest, in an amount proportional to the service obligation not completed as follows:
  - a. The State of Tennessee charges the scholar interest on the unpaid balance owed.

- b. Interest on the unpaid balance accrues from the date the scholar is determined to have entered repayment status.
- c. Any accrued interest is capitalized at the time the scholar's repayment schedule is established.
- d. No interest is charged for the period of time during which repayment has been deferred.
- e. The State of Tennessee may impose reasonable collection costs.
- f. A scholar enters repayment status on the first day of the first calendar month after the earliest of the following dates, as applicable:
  - i. The date the scholar informs the grantee institution that he/she does not plan to fulfill the service obligation under these Guidelines;
  - ii. Any date when the scholar's failure to begin or maintain employment makes it impossible for the individual to complete the service obligation within the number of years required to satisfy his/her obligations under this program; or
  - iii. Any date on which the scholar discontinues enrollment in the course of study as described in these guidelines.
- g. The scholar must make payment(s) to the State of Tennessee that cover(s) principal, interest, and collection costs according to a schedule established by the Tennessee State Department of Education.

Repayment may be in whole or in monthly installments in accordance with a schedule established by the Tennessee State Department of Education.

**Communications from the scholars regarding repayments *MUST* be sent to the grantee institution as specified by the grantee institution with copies to the Tennessee Department of Education.**

- 3. Repayment by **recipients who complete the Plan of Study** shall begin on the first day of the month following the end of the grace period.
- 4. Repayment by **recipients who fail to complete the Plan of Study** shall begin on the first day of the month after the college or university has determined that the students are no longer enrolled in its teacher education program/speech-language pathology program or otherwise fail

to comply with the terms of the agreement. Interest shall begin to accrue immediately after termination of the award.

5. The college or university where the candidate received the BASE-TN scholarship or financial support **MUST** inform the Tennessee Department of Education if a scholar fails to fulfill or chooses not to fulfill the service obligations of the BASE-TN Teaching Program. This notice **MUST** be sent within 30 days of the grantee's awareness that the scholar does not intend to satisfy service obligations consistent with the requirements of the BASE-TN Program.

## **VII. APPEALS PROCEDURE**

- A. Generally, the rulings of the Director of the BASE-TN Initiative, Tennessee Department of Education, Division of Special Education, in conjunction with the university or college BASE-TN Director, Certification Officer, and/or Dean of Education - as deemed appropriate by the Director of the BASE-TN Initiative - shall apply.
- B. An individual who believes that the ruling was not in accordance with the published Guidelines and the goals and intent of the BASE-TN Teaching Program may appeal to the Assistant Commissioner, Tennessee Department of Education, Division of Special Education, for relief. The ruling of the Assistant Commissioner shall be the last administrative remedy.

## **VIII. PRECEDENCE OF THE ACTS**

These Guidelines are subordinate to IDEA and T.C.A. §§49-10-110 and are intended to facilitate their implementation. Any portions of these Guidelines which are adjudicated as contrary to law are to be considered null and void. All other portions of these guidelines shall be severed therefrom and considered in full force.

## **IX. HOW TO APPLY FOR BASE-TN ASSISTANTSHIPS AND FELLOWSHIPS**

Interested persons who meet the eligibility criteria shown in Part IV above should contact the appropriate college or university representatives listed in Appendix A of this document. BASE-TN Teaching Program Applications may be obtained from these representatives. Also refer to Appendix B for a copy of the BASE-TN Teaching Program Application. **The completed application MUST be submitted to the college or university where the applicant intends to enroll by the appropriate deadlines indicated by the participating colleges and universities.** {See Section (I-B) of this document as well as the BASE-TN Teaching Program Application form for a list of the participating institutions.} The applicant **MUST** also satisfy other requirements of the participating colleges and universities (e.g., admission to undergraduate or graduate school) as designated by the institutions.

**NOTE:** The BASE-TN Teaching Program financial awards are competitive and **MUST** be coordinated with other financial assistance received by the applicant before and/or after being awarded in keeping with the requirements of the college or university where the applicant seeks to enroll. This includes - but is not limited

to - employer and/or agency tuition reimbursement programs, loans and grants from other sources.

**X. FOR ADDITIONAL INFORMATION**

For additional information regarding these Guidelines or the BASE -TN Teaching Program, contact:

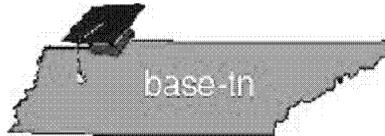
Dr. Cleo J. Harris, Director of the BASE-TN Initiative  
Tennessee Department of Education, Division of Special Education  
7<sup>th</sup> Floor, Andrew Johnson Tower  
710 James Robertson Parkway  
Nashville, TN 37243-0380  
Telephone: 615-532-3259  
E-mail: cleo.harris@state.tn.us

**OR**

**Contact the appropriate college or university representative shown in Appendix A.**

## APPENDIX A

### BASE-TN TEACHING PROGRAM College and University Representatives or Contact Persons



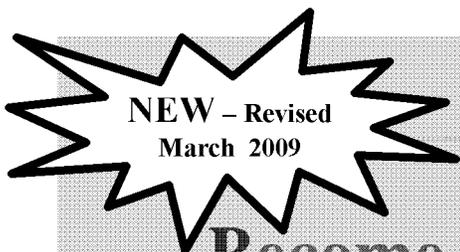
Rev. 11-04-09

NAME / E-MAIL ADDRESS	UNIVERSITY	ADDRESS	AREAS OF CONCENTRATION, MAJOR OR LICENSURE	TEL / FAX	APPLICATION DUE DATES
<b>DR. K. CHARLES COLLIER</b> <a href="mailto:ccollier@cumberland.edu">ccollier@cumberland.edu</a>  <b>MS. KAREN HOBSON</b> <a href="mailto:khobson@cumberland.edu">khobson@cumberland.edu</a>	Cumberland University	School of Education One Cumberland Square Lebanon, TN 37087	Modified K-12 Comprehensive K-12	615-547-1310 1-877-217-5284  615-547-1313 Ext 1173	04-18-09 (Sum-09) 07-25-09 (Fall-09) 12-14-09 (Spr-10)
<b>DR. LORI MARKS</b> <a href="mailto:marks@etsu.edu">marks@etsu.edu</a>  <b>MRS. CYNTHIA HALES</b> <a href="mailto:hallesc@etsu.edu">hallesc@etsu.edu</a>	East TN State University	HDAL Box 70548 Johnson City, TN 37614	Modified K-12 Comprehensive K-12	423-439-7685  423-439-7675 423-439-7790	03-27-09 (Sum-09) 06-26-09 (Fall-09) 10-30-09 (Spr-10)
<b>MR. RICHARD BOWERS</b> <a href="mailto:rbowers@fisk.edu">rbowers@fisk.edu</a>	Fisk University	1000 17 <sup>th</sup> Avenue North Nashville, TN 37208-3051	Modified K-12	615-329-8745	04-16-09 (Sum-09) 06-30-09 (Fall-09) 11-06-09 (Spr-10)
<b>DR. MARIE C. JOHNSON</b> <a href="mailto:mcjohnson@fhu.edu">mcjohnson@fhu.edu</a>  <b>MS. GLORIA SNEED</b> <a href="mailto:gsneed@fhu.edu">gsneed@fhu.edu</a>	Freed-Hardeman University	School of Education 158 East Main Street Henderson, TN 38340-2399	Modified K-12 Comprehensive K-12	731-989-6781 731-989-6959  731-989-6074	05-18-09 (Sum-09) 08-12-09 (Fall-09) 01-06-10 (Spr-10)
<b>MS. PAULA BROWNYARD</b> <a href="mailto:brownvard@lambuth.edu">brownvard@lambuth.edu</a>  <b>MS. JAN KELLEY</b> <a href="mailto:jkelly@lambuth.edu">jkelly@lambuth.edu</a>	Lambuth University	School of Education 705 Lambuth Blvd. Jackson, TN 38305	Modified K-12 Comprehensive K-12	731-425-3264 731-425-2311  731-425-3388	07-10-09 (Fall-09) 11-06-09 (Spr-10)
<b>DR. RALPH CALHOUN</b> <a href="mailto:ralph_calhoun@loc.edu">ralph_calhoun@loc.edu</a>  <b>MS. OLIVIA KIRK</b> <a href="mailto:okirk@loc.edu">okirk@loc.edu</a>	LeMoyné-Owen College	807 Walker Avenue Memphis, TN 38126-9989	Modified K-12	901-435-1276 901-435-1299  901-435-1283	05-01-09 (Fall-09) 11-06-09 (Spr-10)

<b>DR. CRAIG RICE*</b> <a href="mailto:crice@mtsu.edu">crice@mtsu.edu</a>  <b>MS. LINDA COPCIAC</b> <a href="mailto:lcopciac@mtsu.edu">lcopciac@mtsu.edu</a>	Middle TN State University	P.O. Box 69 Murfreesboro, TN 37132	Modified K-12 Comprehensive K-12	615-898-5643 615-898-2309  615-898-2680	03-16-09 (Sum-09) 03-16-09 (Fall-09) 10-05-09 (Spr-10)
<b>DR. JUDITH PRESLEY</b> <a href="mailto:jpreslev@tnstate.edu">jpreslev@tnstate.edu</a>  <b>MS. CAROLYN HODISON</b> <a href="mailto:chodison@tnstate.edu">chodison@tnstate.edu</a>	TN State University	Tennessee State University 3500 John A. Merritt Blvd. Dept. of Teaching/Learning College of Education Clay Building, Room 210 Nashville, TN 37209	Modified K-12	615-963-5468 615-963-5114  615-963-7396 615-963-7308	04-17-09 (Sum-09) 07-16-09 (Fall-09) 11-09-09 (Spr-10)
<b>DR. HELEN DAINTY</b> <a href="mailto:hdainty@tntech.edu">hdainty@tntech.edu</a>  <b>MS. NANCY FURTON</b> <a href="mailto:nfurton@tntech.edu">nfurton@tntech.edu</a>	TN Technological University	80 West 8 <sup>th</sup> Street Matthews Hall, Box 5074 Cookeville, TN 38505	Modified K-12 Comprehensive K-12	931-372-3116 931-372-6270  931-372-3551	04-14-09 (Sum-09) 07-14-09 (Fall-09) 12-03-09 (Spr-10)
<b>DR. SANDRA COOLEY-NICHOLS</b> <a href="mailto:smcooley@memphis.edu">smcooley@memphis.edu</a>  <b>MS. Z. CAROL HUNTER</b> <a href="mailto:zchunter@memphis.edu">zchunter@memphis.edu</a>	University of Memphis	South Campus 4111 South MSU, B Street Bldg. 48, Room 102 Memphis, TN 38152	Early Childhood PreK-12 Modified K-12 Comprehensive K-12	901-678-2862 901-678-3881  901-678-1740	03-31-09 (Sum I-09) 03-31-09 (Full Sum) 03-31-09 (Fall-09) 10-31-09 (Spr-10)
<b>DR. BARBARA RAY</b> <a href="mailto:barbara-rav@utc.edu">barbara-rav@utc.edu</a>	University of TN - Chattanooga	615 McCallie Avenue Chattanooga, TN 37403	Modified K-12 Comprehensive K-12 Preschool/Early Childhood PreK-12	423-425-4538 423-425-5380	04-10-09 (Sum-09) 06-20-09 (Fall-09) 11-10-09 (Spr-10)
<b>DR. SHARON BARKDOLL</b> <a href="mailto:sbarkdol@utk.edu">sbarkdol@utk.edu</a>  <b>MS. ELIZABETH HUEMMER</b> <a href="mailto:ehuemmer@utk.edu">ehuemmer@utk.edu</a>	University of TN - Knoxville	Theory/Practice in Teacher Education Jane and David Bailey Education Complex, A409 Knoxville, TN 37996-3442	Modified K-12 Comprehensive K-12 Preschool/Early Childhood PreK-Grade 3	865-974-6459 865-974-8718  865-974-2532	03-16-09 (Sum-09) 07-07-09 (Fall-09) 11-02-09 (Spr-10)

<b>DR. TINA SMITH</b> <a href="mailto:tsmith31@tnstate.edu">tsmith31@tnstate.edu</a>  <b>MS. LAJUANNA JEFFERSON</b> <a href="mailto:lbooker2@tnstate.edu">lbooker2@tnstate.edu</a>	Tennessee State University	Department of Speech Pathology & Audiology 330 Tenth Avenue, North Box 131, Suite A Nashville, TN 37203-3401	Speech-Language Pathology (Master's level, online / distance education courses only)***	615-963-7057  615-963-7081	11-01-10 (Final date to receive applications for the next Cohort)
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\*\*\*For additional information and courses offered, visit [www.tennessee.gov/education/speced](http://www.tennessee.gov/education/speced) and click on "News / Announcements."



# APPLICATION

## Appendix B

# Become A Special Educator in TN Teaching Program



Tennessee Department of Education

Division of Special Education  
7th Floor, Andrew Johnson Tower  
710 James Robertson Parkway  
Nashville, Tennessee 37243

615-532-3259 • 1-888-212-3162 • 615-253-5567 (FAX)

**Type or print in ink.** All information must be completed and received at the college or university of the applicant's choice by the date indicated by that institution. A commitment to full-time teaching in a Tennessee public school serving children with disabilities ages birth through twenty-one is a requisite for receiving the BASE-TN award. An applicant must be (1) a post-baccalaureate student with a major other than Special Education who is seeking an initial teacher license or an endorsement in Special Education, including Master's level Speech-Language Pathology or (2) an educational assistant / para-professional currently employed in a Tennessee public school serving students with disabilities ages birth through twenty-one who is seeking an initial Tennessee teacher license in Special Education. The educational assistant must have earned a minimum of two years of transferable college credit in an area of Special Education. (See the accompanying BASE-TN Guidelines for other criteria that may apply: [www.k12.tn.us/BASE-TN](http://www.k12.tn.us/BASE-TN) and [www.state.tn.us/education/speced/](http://www.state.tn.us/education/speced/)). The awards are made on a competitive basis contingent upon available funding.

### PART I

1. Name: \_\_\_\_\_  
*(Last)* *(First)* *(MI)*
2. Telephone Number: \_\_\_\_\_
3. Cellular Number: \_\_\_\_\_
4. Current Home Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_ + \_\_\_\_\_ County: \_\_\_\_\_
5. Permanent Home Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_ + \_\_\_\_\_ County: \_\_\_\_\_
6. E-mail Address: \_\_\_\_\_
7. Drivers License - Which State? \_\_\_\_\_
8. U.S. Citizen, National or Permanent Resident:  Yes  No *(Only U.S. citizens, nationals & permanent residents are eligible.)*
9. List the Years Lived in Tennessee: \_\_\_\_\_ to \_\_\_\_\_ ; \_\_\_\_\_ to \_\_\_\_\_ ; \_\_\_\_\_ to \_\_\_\_\_  
*(Preference will be given to Tennessee residents.)*
10. Race *(Check One)*:  American Indian or Alaska Native  Asian or Pacific Islander  
 Black  Hispanic  
 White  Other \_\_\_\_\_  
*(Specify)*
11. Gender:  Male  Female
12. Are you licensed to teach in Tennessee?  Yes *(attach copy / copies with application)*  No  
If "yes", in which area(s):  
\_\_\_\_\_  
\_\_\_\_\_  
License #: \_\_\_\_\_  
License #: \_\_\_\_\_

13. Are you currently employed as a teacher or speech therapist/pathologist/teacher?  Yes  No  
If yes, which state? \_\_\_\_\_ Grade Level? \_\_\_\_\_

School System? \_\_\_\_\_ Subject(s) Taught? \_\_\_\_\_

Principal's Name: \_\_\_\_\_ Tel: ( ) \_\_\_\_\_

Address of School: \_\_\_\_\_

14. Are you currently employed in a Tennessee public school as an educational assistant/speech-language assistant/ para-professional?

Yes  No

If yes, which school system? \_\_\_\_\_ Do you serve students with disabilities?  Yes  No

What percentage of the day? \_\_\_\_\_ %

Describe the student composition of the classroom(s) where you serve: \_\_\_\_\_

Principal's Name: \_\_\_\_\_ Tel: ( ) \_\_\_\_\_

Address of School: \_\_\_\_\_

Have you completed at least two years of transferable college credit in an area of special education? \*  Yes  No  
*\*College transcript(s) MUST be attached to reflect this college work*

15. Please check each program in which you are a CURRENT or PRIOR award recipient:

- |   |  |
|---|--|
| <input type="checkbox"/> Teacher Loan Program for Disadvantaged Areas     | <input type="checkbox"/> Teacher Loan/Scholarship                  |
| <input type="checkbox"/> Minority Teaching Fellow Program                 | <input type="checkbox"/> Ned McWherter Scholars Program            |
| <input type="checkbox"/> Educ Assistant Program: Cumberland, Lee & Bethel | <input type="checkbox"/> Robert C. Byrd Honors Scholarship Program |
| <input type="checkbox"/> PELL Grant                                       | <input type="checkbox"/> TN DOE Special Education Institute        |
| <input type="checkbox"/> Stafford Loan: Subsidized                        | <input type="checkbox"/> Stafford Loan: Unsubsidized               |
| <input type="checkbox"/> Others (specify) _____                           |  |

16. Will you receive or have you received any other financial aid that requires a teaching commitment or other type service obligation after you receive your Tennessee teacher license in an area of special education?  Yes  No

If yes, explain: \_\_\_\_\_

17. Have you or do you currently receive financial support through the TN Special Education Institutes?  Yes  No

If yes, tell when and give the number of hours of support received: \_\_\_\_\_

18. If you currently receive a PELL Grant and/or a student loan (Stafford or other), explain why you are also seeking BASE-TN support.

\_\_\_\_\_

19. After you receive your teacher license in an area of Special Education, including Speech-Language Pathology, what level do you plan/prefer to teach/serve?

Infants/Preschool  Elementary  Secondary

20. Which area of special education do you plan to seek an initial Tennessee license in special education or an additional endorsement in special education?

- |   |  |
|---|--|
| <input type="checkbox"/> Preschool/Early Childhood PreK-1 | <input type="checkbox"/> Speech/Language PreK-12 |
| <input type="checkbox"/> Vision PreK-12                   | <input type="checkbox"/> Hearing PreK-12         |
| <input type="checkbox"/> Modified K-12                    | <input type="checkbox"/> Comprehensive K-12      |

21. What is the highest degree you hold?  High School Diploma  Associate Degree  
 Bachelor's Degree  Master's Degree  
 Doctor's Degree  Other (specify): \_\_\_\_\_

22. Where do you plan to enroll?\*

- |  |   |
|--|---|
| <input type="checkbox"/> Cumberland University     | <input type="checkbox"/> Middle TN State University     |
| <input type="checkbox"/> East TN State University  | <input type="checkbox"/> TN State University            |
| <input type="checkbox"/> Fisk University           | <input type="checkbox"/> TN Technological University    |
| <input type="checkbox"/> Freed Hardeman University | <input type="checkbox"/> University of Memphis          |
| <input type="checkbox"/> Lambuth University        | <input type="checkbox"/> University of TN - Chattanooga |
| <input type="checkbox"/> LeMoyne-Owen College      | <input type="checkbox"/> University of TN - Knoxville   |

\* Students may receive BASE-TN Teaching Program financial support from one college or university only. The completed BASE-TN Teaching Application MUST be submitted to the designated college or university representative. See Appendix A.

23. Have you been accepted by this Institution's Graduate Program?  Yes  No (If yes, attach acceptance letter.)

24. Have you been accepted by this Institution's Undergraduate Program?  Yes  No (If yes, attach acceptance letter.)

25. Have you been accepted by this Institution's Teacher Education Program or Speech Language Department?  
 Yes  No (If yes, attach acceptance letter.)

26. Have you completed your Plan of Study that indicates the courses you need to satisfy requirements for initial Tennessee license in special education or an endorsement in special education?  Yes  No (If yes, attach copy, including signature of the institution's Director of Teacher Education Program, Dean, Department Head, or Certification Officer.)

27. Indicate each term for which you are applying for BASE-TN Teaching Program tuition support and hours you plan to take based on your Plan of Study developed cooperatively with a college or university teacher education program representative:

	Number of Credit Hours	Projected Calendar Year(s) of Matriculation
A. Fall Semester	_____	_____
B. Spring Semester	_____	_____
C. Summer – 1 <sup>st</sup> Term	_____	_____
D. Summer – 2 <sup>nd</sup> Term	_____	_____
E. Summer – Full Term	_____	_____
F. Other (specify)	_____	_____

28. When do you anticipate completing the requirements for Tennessee teacher licensure in an area of Special Education?

\_\_\_\_\_ Month \_\_\_\_\_ Year (Preference given to scholars completing program in shortest time period.)

29. STANDARDIZED TESTS SCORE REPORTS. Provide scores you received on the following standardized tests and the dates the tests were taken. (Must attach copies of score reports.)

Act Score:	<input type="text"/>	Date Taken:	<input type="text"/>	OR	SAT Score:	<input type="text"/>	Date Taken:	<input type="text"/>
GRE Scores:	Verbal <input type="text"/>	Quantitative:	<input type="text"/>					
MAT Score:	<input type="text"/>	Date Taken:	<input type="text"/>					

30. **REFERENCES:** You *MUST* attach four letters of recommendation. One of these letters may be a recommendation from an official of the Teacher Education Program at the educational institution or current or former professors in speech-language attesting to your stated commitment to teaching / speech-language pathology and perceived promise of professional success as a teacher/professional educator serving students with disabilities ages birth through twenty-one. If employed in a school position (e.g., educational assistant, speech-language teacher, school counselor, etc.), you *MUST* include letters from the special education supervisor in the system where you are employed, principal and immediate supervisor attesting to your perceived interest in teaching/ speech-language, demonstrated competencies and skills, and perceived and/or indicated intent to serve students with disabilities ages birth through twenty-one in a Tennessee public school.

31. **LETTER OF INTENT:** You *MUST* attach a letter of intent that addresses the following: why you want to obtain a Tennessee teacher license in Special Education or Speech-Language Pathology; your current employment (what you do; who you serve; if in a school setting, describe the students served, number of students, grade level, etc.); your intent to teach in a Tennessee public school serving students with disabilities ages birth through twenty-one upon receipt of the special education license or endorsement; and your understanding that you must teach/serve as a speech-language pathologist in a Tennessee public school two years for each year of financial support received through the BASE-TN Teaching Program. *Your letter of intent MUST also state that you understand that you will be required to repay the funds if you (a) fail to complete the program, or (b) elect not to fulfill the service requirements. Additionally, your letter MUST state that you have read and fully understand the BASE-TN Teaching Program current Guidelines (give date of Guidelines).*

32. **REQUIRED ATTACHMENTS:**

- College Transcript(s)
- Plan of Study
- Letter from Teacher Education Program /Speech-Language Department Indicating Acceptance or Eligibility for Acceptance (*if you have been accepted or you have been informed of your eligibility for acceptance*)
- Letter of Intent
- Copy of Applicant's Tennessee Teacher License
- Two-Page essay on the pros and cons of online/distance education learning versus taking courses in a traditional classroom (Must be submitted by speech-language applicants only)
- Four Letters of Recommendation
- Letter of Acceptance to Graduate/Undergraduate School
- Standardized Test Score Reports included in Item 28 above

33. **CERTIFICATION BY APPLICANT**

A. I understand that this application must be completed, in full, by me; that this application **MUST** include the Institution's certification as indicated in Part II; and that this application must be forwarded to the college or university where I am seeking admittance by the deadline established by that institution.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

B. I realize that this application must be supported by copies of all my transcripts of college credits, standardized test score reports, four letters of recommendations, acceptance letter from the Graduate or Undergraduate School, acceptance letter from the institution's teacher education program / speech-language department (indicating that I have been admitted or that I am eligible to be admitted – if this step has been completed), a copy of my Plan of Study, and my letter of intent.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

C. I agree to provide other documentation as may be requested to verify the information in this application. I authorize the education institution to release to the Tennessee Department of Education, Division of Special Education, or its agents, any information requested by such individuals (e.g., current address, enrollment status, GPA, etc.).

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

D. I affirm that any funds obtained as a result of this application will be used solely for expenses related to attendance in teacher education (special education/speech-language pathology) at the educational institution indicated in this application.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

E. I understand that I must reapply for this program at least once per year following my initial acceptance in keeping with the requirements of the college or university where I am enrolled and as determined by my Plan of Study. I understand that I must make satisfactory progress in all courses to continue receiving financial support from the BASE-TN Teaching Program.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

F. I understand that the specific amount of BASE-TN Teaching Program tuition/financial support received will be determined by the institution where I am enrolled and will be limited to the available funds. I further understand the funds will be awarded in keeping with the guidelines, policies and procedures of the Tennessee Department of Education, the Granting Agency of this Program.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

G. I also understand that I will be required to repay all or part of the BASE-TN scholarship assistance to the State of Tennessee if I fail to meet the terms and conditions of the assistance as defined in the BASE-TN Teaching Program Guidelines.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

H. I have read and fully understand Section VI (C) of the BASE-TN Guidelines that addresses "cancellation." I have read and fully understand Section VI (D) of the BASE-TN Guidelines that addresses "repayment." I affirm my willingness to be governed by these sections if I am awarded BASE-TN Teaching Program funds.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

I. I agree to notify the TN Department of Education, Division of Special Education, and the college or university where I enroll of any change in my status including but not limited to my name, address, school attendance, and employment status.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

J. I understand to remain eligible for the BASE-TN Teaching Program financial assistance, I must satisfy the academic requirements of the college or university where enrolled as well as that institution's teacher education program / department of speech-language requirements.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

K. I affirm my intent to teach / serve as a speech-language pathologist in an approved Tennessee public school\* serving students with disabilities ages birth through twenty-one 2 years for each academic year the award is received. (For the purpose of this award, one academic year equals 30 semester hours of financial support to special education teacher candidates and 27 semester hours of financial support to speech-language pathology candidates.) I understand that if I fail to satisfy this service obligation, I will be required to repay all the BASE-TN funds expended on my behalf plus interest and costs associated with the collection thereof, if any, in keeping with the requirements as set forth by the State of Tennessee.

\*I also understand that employment by a private agency in a contractual arrangement with an approved Tennessee public school will NOT satisfy the service obligations requirements of the BASE-TN Program.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

L. I understand that I will be required to sign a Student Service Agreement, a Certification of Eligibility for Federal Assistance, a Promissory Note each semester BASE-TN tuition support is received, and an Exit Certificate that will be provided to me by the college or university, and that these documents will be maintained by that institution. The TN Department of Education will also maintain a copy of the Promissory Notes and the signed Exit Certificate.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

M. I understand that upon program completion and obtaining employment, I will be required to complete written employment verification each semester to the BASE-TN Director at the institution where I completed my program, ending when I satisfy all my service obligations.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

N. I certify that I have read this application and that it is accurate to the best of my knowledge and accurately reflects my intent.

*Applicant's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

**Part II must also be completed as indicated and included with this application. (See the next page).**

**PART II**

*(This part must be completed by the Teacher Education Program/Speech-Language Department to which the student has been formally admitted, is currently under consideration for admission, or has expressed intent to seek admission. The student named below is applying for BASE-TN Teaching Program tuition support.)*

**BASE TN Teaching Program Applicant:** \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Mobile or Cellular No.: \_\_\_\_\_

34. Current Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

ZIP: \_\_\_\_\_

+

County: \_\_\_\_\_

\*\*\*\*\*

35. Name of College or University: \_\_\_\_\_

Address: \_\_\_\_\_

Director of Teacher Education Program/Head Speech-Language Department: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

E-MAIL: \_\_\_\_\_

36. Residency (of Student Applicant):

In State

Out -of-State

37. Standardized Test Scores:

ACT

SAT

MAT

GRE

38. Undergraduate Cumulative GPA:

for

Semester Hours

Graduate Cumulative GPA

for

Semester Hours

39. This applicant's Plan of Study has been developed jointly with the student after an evaluation of his/her transcript(s) and delineates course(s) needed to help applicant satisfy requirements leading to (a) an initial Tennessee teacher license in an area of Special Education/Speech-Language Pathology, (b) an endorsement in an area of Special Education, or (c) a Master's degree in Speech-Language Pathology.  Yes  No

**40. CERTIFICATION BY OFFICIAL OF STATE APPROVED TEACHER EDUCATION PROGRAM/SPEECH-LANGUAGE DEPARTMENT:**

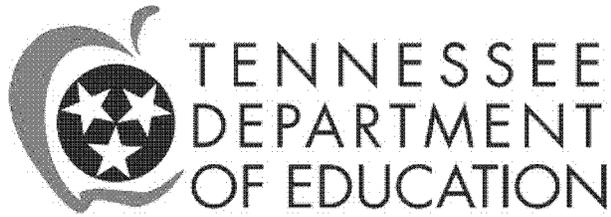
I certify that the information given in Part II above is complete and correct to the best of my knowledge; that the above-named student has been formally admitted (or has expressed intent to seek admission) to the State approved Teacher Education Program/Speech-Language Program at \_\_\_\_\_ University/College that offers a concentration or major in special education/speech-language pathology; and that graduates of this program will take courses that satisfy requirements for Tennessee licensure in special education or graduate level speech-language pathology.

\_\_\_\_\_  
*Signature of Dean, Director of Teacher Education Program, or Head of Speech-Language Department*

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**NOTE:** *This part of the BASE TN Application should be completed by the official of the college or university as indicated, signed and returned to the BASE TN Teaching Program applicant named above as part of the application process.*



# Tennessee Teacher Equity Plan

*to ensure that poor or minority children  
are taught by effective teachers at the  
same or higher rate as other children*

**December 2009**

For more information, please contact:  
Merrie M. Clark, Ed.D.  
Data and Research Manager  
Office of Federal Programs  
Tennessee Department of Education  
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## **Teacher Equity Plan 2009-2010**

The Tennessee Teacher Equity Plan was designed in 2006 to ensure that poor or minority students are taught by effective teachers at the same or higher rates as other students. The plan was updated for the school year 2009-2010. The updated plan compares data on highly qualified teachers, teachers' years of experience, and teacher effectiveness in high poverty and low poverty public schools across the state. A summary of the findings include the following: 1) the percentage of highly qualified teachers has increased significantly since the 2006 plan with the gap in the percentage of HQTs between high poverty and low poverty schools eliminated (elementary level) or nearly eliminated (secondary level); 2) high poverty schools, high minority schools, and high poverty/high minority schools have a larger percentage of inexperienced teachers (five years of experience or less) than low poverty, low minority, and low poverty/low minority schools; and 3) high poverty schools have a larger percentage of ineffective teachers and a smaller percentage of highly effective teachers than low poverty schools when comparing combined math, science, and reading/language arts teacher effect scores. However, when looking at the separate teacher effect scores, for reading/language arts, high poverty schools have more ineffective teachers and fewer highly effective teachers than low poverty schools. For math and science, the percentages of ineffective teachers in high poverty and low poverty schools are similar but large, indicating a need to improve the quality of math and science teachers across Tennessee. Additionally, for science, high poverty schools have a much smaller percentage of highly effective teachers than low poverty schools, suggesting that students in high poverty schools may not have access to the most effective science teachers.

The 2009-2010 Teacher Equity Plan begins by providing background on the teacher equity issue in Tennessee, including challenges, strategies, and progress. Next, the plan examines inequities in teacher assignment through analyses and discussion of the distribution of highly qualified teachers, teachers' years of experience, and teacher effectiveness across high poverty and low poverty schools. The plan then presents strategies that will be implemented to ensure the equitable distribution of highly qualified, highly effective teachers in schools.<sup>1</sup>

### **Background**

In summer 2006, the U.S. Department of Education required states to submit highly qualified teacher (HQT) state plans that included an equity plan to ensure "that poor and minority children are not taught at higher rates than other children by inexperienced, unqualified, or out-of-field teachers." The Tennessee plan contained a comprehensive analysis of the equitable distribution of HQTs across the state as well as an analysis of teacher experience and education levels by

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<sup>1</sup> The plan will be revised in January 2010 to include updates on the progress of the six districts, Hamilton County, Knox County, Madison County, Memphis City, Metropolitan Nashville, and Shelby County, identified in the 2006 plan as those with the most significant teacher equity gaps.

school poverty and minority status.<sup>2</sup> The analyses found that high poverty and high minority schools had a larger percentage of beginning teachers, a smaller percentage of teachers with master's degrees, and a lower percentage of core academic courses taught by HQTs than low poverty and low minority schools.

The 2006 plan also identified six districts with the greatest equity gaps, detailed strategies to address these gaps, and outlined steps the state would take to monitor implementation of teacher equity plans in these districts. The importance of identifying and providing technical assistance and support to the six districts to improve equity in the distribution of highly qualified and highly effective teachers cannot be overstated as these districts serve over half of Tennessee's public school population. The six districts will share the results of their teacher equity implementation plans with other districts so that successful strategies can be replicated across the state.

The Tennessee Department of Education partnered with the Appalachia Regional Comprehensive Center (ARCC), which drew on the resources and expertise of the National Comprehensive Center for Teacher Quality (NCCTQ), to provide technical assistance to the six districts with the greatest equity gaps. A description of the work is found in the NCCTQ 2009 publication *America's Opportunity: Teacher Effectiveness and Equity in K-12 Classrooms*, Carr, D. & Oxnam, G. "Addressing the Equitable Distribution of Teachers in Tennessee (p. 100-109)."

In the 2006 equity plan, Tennessee committed to take its study one crucial step further by examining the disparity in teacher effectiveness, as measured by student progress on statewide achievement assessments. Based on research conducted in 2007, the state concluded that a clear equity problem existed. Students in high poverty, high-minority schools had less access to the state's most effective teachers and more access to the state's least effective teachers than students in low poverty, low minority schools (*Tennessee's Most Effective Teachers: Are They Assigned to the Schools That Need Them the Most*)<sup>3</sup>.

During the 2007 legislative session, the Tennessee Code (Section 49-1-602d) was amended to include Sections 5 and 6, which address HQTs in hard-to-staff schools and subjects. Under the statute, each district is required to develop a differentiated pay plan that addresses teaching in hard-to-staff subject areas or in schools that have difficulty hiring and retaining HQTs. The statute grants the Tennessee Department of Education authority to approve the district plans.

Research studies have found that teachers influence student learning more than any other factor in school (Barber & Mourshed, 2007; Goldhaber et al., 1999; Rivkin *et al.*, 2005; Rockoff, 2004, as cited by Behrstock & Clifford, 2009, for NCCTQ) and that the effect of teachers on student achievement is cumulative; according to Sanders & Rivers, 1996 (as cited by Behrstock & Clifford, 2009), having even just a few ineffective teachers can have detrimental long-term consequences for the students affected. Likewise, having effective teachers positively impacts student achievement significantly. This research fuels Tennessee's steadfast commitment to identifying and providing highly effective teachers in all classrooms.

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<sup>2</sup> Teacher education levels were not examined in the 2009-2010 report due to the lack of research to support degree level as an indicator of teacher quality. In fact, research compiled by Laura Goe and Leslie M. Stickler for the National Comprehensive Center for Teacher Quality (2008) showed that empirical studies were not finding a substantial benefit for students of teachers with advanced degrees (Clotfelter, Ladd, & Vigdor, 2006; Monk, 1994; Rowan, Correnti, & Miller, 2002; Betts, Zau, and Rice (2003).

<sup>3</sup> This document may be viewed at [http://state.tn.us/education/nclb/doc/TeacherEffectiveness2007\\_03.pdf](http://state.tn.us/education/nclb/doc/TeacherEffectiveness2007_03.pdf)

## A. Inequities in Teacher Assignment

### Highly Qualified

As Table 1 shows, the percentage of highly qualified teachers increased from 80.9% to 98.8% across all Tennessee schools between 2004-2005 and 2008-2009. Moreover, the percentage of highly qualified teachers was nearly the same in high poverty and low poverty schools in 2008-2009. At the elementary level, the percentage of highly qualified teachers in high poverty schools (99.4) slightly exceeded that of low poverty schools (99.3). At the secondary level, the gap between high poverty (97.7%) and low poverty (98.2%) schools narrowed to less than one percentage point (0.5) in 2008-2009 from over 10 percentage points (10.3) in 2004-2005. Changes in hiring practices, better data systems to monitor and report teacher quality, and increased SEA and federal support to districts along with other factors contributed to the improvement.

**TABLE 1**  
**Statewide Percentage of Core Academic Courses Taught by Highly Qualified Teachers**  
**For School Years 2004-2005 and 2008-2009**  
**Disaggregated by High Poverty vs. Low Poverty Schools in Tennessee**  
**(Consolidated State Performance Report, Part I, 2009)**

School Type	Percentage of Core Academic Courses Taught by Highly Qualified Teachers 2004-2005	Percentage of Core Academic Courses Taught by Highly Qualified Teachers 2008-2009
All Schools in the State	80.9	98.8
Elementary Level (Grades K – 6)		
High Poverty Schools	81.3	99.4
Low Poverty Schools	87.9	99.3
<b>Gap Between High Poverty and Low Poverty Elementary Schools</b>	<b>6.6</b>	<b>No gap</b> <b>-0.1</b>
Secondary Level (Grades 7-12)		
High Poverty Schools	71.0	97.7
Low Poverty Schools	81.3	98.2
<b>Gap Between High Poverty and Low Poverty Secondary Schools</b>	<b>10.3</b>	<b>0.5</b>

The 2009 Free and Reduced Price Lunch data for each school are used to rank all schools statewide. The top and bottom quartiles of this distribution are then determined; the top quartile is assigned High Poverty, and the bottom quartile is assigned Low Poverty.

## **Teacher Experience**

To develop policies that could eliminate the inequity in the distribution of highly effective teachers, policymakers and educators need to know more about how high poverty and high minority schools differ in their ability to retain and attract effective teachers throughout their careers. The analyses in Tennessee's 2006 Teacher Equity Plan and in numerous other studies show that high poverty and high minority schools have a disproportionate number of beginning teachers. Data for 2008-09 confirm this relationship.

Tables 2, 3, and 4 (on the next page) examine teacher experience at the school level by poverty, minority, and poverty/minority status, respectively. For these analyses, teachers were categorized into three experience levels: novice (0-2 years), inexperienced (3-5 years), and experienced (6 or more years). Table 2 reveals that high poverty schools had larger percentages of novice and inexperienced teachers (31.6%) than low poverty schools (25.0%). In other words, there was a 6.6 percentage point gap between high poverty and low poverty schools in the distribution of teachers by experience. In Tennessee, the schools that generally struggle the most with student achievement have high numbers of economically disadvantaged students, yet these are the same schools that have the highest percentage of inexperienced teachers.

Table 3 and Table 4 (next page) indicate that the inequitable distribution of novice and inexperienced teachers was an even greater concern in high minority and high poverty/high minority schools than in high poverty schools. The gap in the distribution of novice and inexperienced teachers was 12.1 percentage points when comparing high minority (33.8%) to low minority schools (21.7%) and 11.4 percentage points when comparing high minority/high poverty (33.4%) to low minority/low poverty schools (22.0%).

These findings may relate in part to Tennessee's alternative licensure programs, which tend to be located in high poverty, high minority schools in urban areas. These urban districts also have a higher percentage of minority students compared with rural and suburban districts. Many of the individuals holding an alternative license may be second career professionals who have an advanced degree but not teaching preparation and experience.

## **Teacher Effectiveness**

It is important to study the distribution of teacher effectiveness across schools. In Tennessee, students in poverty are less likely to be meeting grade-level standards than other students. While they make about the same rate of academic progress each year as other students, they are more likely to start out below grade level. Consequently, they need effective teachers – teachers who have the ability to accelerate their rate of academic progress – to reach grade level expectations and beyond.

**The Distribution of Teachers\* by Experience Level  
For the 2008-2009 School Year**

**TABLE 2  
By Poverty Level**

Poverty Levels	Teacher Years Experience		
	0-2 (Novice)	3-5 (Inexperienced)	6 + (Experienced)
High Poverty	15.5	16.1	68.4
Low Poverty	8.9	16.1	75.0
Middle Poverty	9.9	15.8	74.3

The 2009 Free and Reduced Price Lunch data for each school are used to rank all schools statewide. The top and bottom quartiles of this distribution are then determined; the top quartile is assigned High Poverty, and the bottom quartile is assigned Low Poverty.

**TABLE 3  
by Minority Level**

Poverty Levels	Teacher Years Experience		
	0-2 (Novice)	3-5 (Inexperienced)	6+ (Experienced)
High Minority	16.3	17.5	66.2
Low Minority	8.0	13.7	78.3
Middle	9.4	16.3	74.3

The 2009 percent minority for each school are used to rank all schools statewide. The top and bottom quartiles of this distribution are then determined; the top quartile is assigned High Minority, and the bottom quartile is assigned Low Minority.

**TABLE 4  
By Poverty/Minority Level**

Poverty Levels	Teacher Years Experience		
	0-2 (Novice)	3-5 (Inexperienced)	6+ (Experienced)
High Poverty/High Minority	16.9	16.5	66.6
Low Poverty/Low Minority	7.0	15.0	78.0
Other	9.8	15.9	74.3

High Poverty/High Minority schools are defined as schools that are in the top quartile for both poverty and minority. Low Poverty/Low Minority schools are defined as schools that are in the bottom quartile for both poverty and minority.

\*Includes all teachers in grades 4-8 who had a teacher effect for an end of grade TCAP subject and all high school teachers who had a teacher effect for a Gateway or End of Course high school subject.  
(SAS Institute Inc., 12/15/2009)

This 2009-10 teacher equity report includes teacher effectiveness analyses using statewide teacher effect scores for school year 2008-09. Tennessee is uniquely positioned to carry out these analyses. For more than 16 years, the state has been harnessing its longitudinal student assessment database – which includes links between students and their teachers. A teacher’s effect score (value-added estimate) is an indicator of how much the teacher influences his or her students’ academic progress. A teacher effect score below zero indicates that the average student in the teacher’s class made less progress than the state growth standard, while a teacher effect score above zero indicates that the average student in the teacher’s class made more progress than the state growth standard. All teacher effect scores include a standard error, which is a measure of the uncertainty around the score. For the purposes of this study, teachers were divided into one of four categories based on their teacher effect scores: “Highly Effective” (Level 4 or Level 5), “Average Effectiveness” (Level 3), “Approaching Average Effectiveness” (Level 2), and “Ineffective (Level 1).”\*

\*Rules for Level determination

The 2008-2009 teacher gain relative to the 2008-2009 state gain is the teacher effect. The teacher effect (that is, teacher gain –state gain) is divided by its standard error to form a *t*-value for each teacher-grade-subject.

- Level Five: The teacher *t*-value is 2 or greater.
- Level Four: The teacher *t*-value is greater than 1 but less than 2.
- Level Three: The teacher *t*-value is greater than -1 but less than +1.
- Level Two: The teacher *t*-value is greater than -2 but less than -1.
- Level One: The teacher *t*-value is less than -2.

(SAS Institute Inc., 12/17/ 2009)

The next four tables (Tables 5-8) use 2008-2009 teacher effectiveness data to give insight into the distribution of effective teachers across schools with varying poverty levels. Table 5 (next page) data are based on teacher effect scores for reading/language arts (End of Grade TCAP Reading/Language Arts for grades 4-8 and End of Course English I and Gateway English II for high school). The percentage (14.9%) of ineffective teachers (Level 1) in high poverty schools is more than double the percentage (6.5%) of ineffective teachers (Level 1) in low poverty schools. Of equal concern is that the percentage of highly effective reading/language arts teachers (Levels 4, 5) is 12 percentage points lower in high poverty schools (16.2%) than in low poverty schools (28.2%).

**TABLE 5**  
**Teacher Effectiveness Summary for Reading/Language Arts**

<b>Table of Teacher Rating by Poverty Category</b>			
<b>Teacher Rating</b>	<b>Poverty Category</b>		
	<b>High Poverty</b>	<b>Low Poverty</b>	<b>Middle</b>
Highly Effective (Level 4,5)	16.2	28.2	22.2
Average Effectiveness (Level 3)	50.9	53.2	58.2
Approaching Average Effectiveness (Level 2)	18.0	12.1	12.5
Ineffective (Level 1)	14.9	6.5	7.1

The 2009 Free and Reduced Price Lunch data for each school are used to rank all schools statewide. The top and bottom quartiles of this distribution are then determined; the top quartile is assigned High Poverty and the bottom quartile is assigned Low Poverty  
(SAS Institute Inc., 12/17/2009)

Table 6 data are based on teacher effect scores for mathematics (End of Grade TCAP Math for grades 4-8 and Gateway Algebra I for high school). The data here paint a much different picture than the data in Table 5. While there is approximately a four percentage point gap in the share of highly effective teachers (Levels 4 & 5) in high poverty (34.9%) as compared to low poverty schools (38.8%), the percentage of ineffective teachers (Level 1) is nearly the same in high poverty (16.6%) and low poverty schools (16.2%). The major concern here is the high percentage of ineffective math teachers (Level 1) across all schools. The percentage of ineffective math teachers is highest (22.5 %) in middle poverty schools. These data suggest that Tennessee has much work to do to improve the quality of teaching in mathematics across the state.

**TABLE 6**  
**Teacher Effectiveness Summary for Mathematics**

<b>Table of Teacher Rating by Poverty Category</b>			
<b>Teacher Rating</b>	<b>Poverty Category</b>		
	<b>High Poverty</b>	<b>Low Poverty</b>	<b>Middle</b>
Highly Effective (Level 4,5)	34.9	38.8	30.8
Average Effectiveness (Level 3)	37.6	33.7	32.3
Approaching Average Effectiveness (Level 2)	10.9	11.3	14.4
Ineffective (Level 1)	16.6	16.2	22.5

(SAS Institute Inc., 12/17/2009)

Table 7 data are based on teacher effect scores for science (End of Grade TCAP Science for grades 4-8 and Gateway Biology I for high school). The percentage of ineffective teachers (Level 1) is actually lower in high poverty schools (15.1%) than in low poverty schools (16.4%). However, the percentage of highly effective science teachers (Levels 4, 5) in high poverty schools (20.7%) is roughly half that of low poverty schools (38.0%). These data suggest that students in high poverty schools do not have access to the most effective science teachers. As with math, the high percentage of ineffective science teachers indicates that Tennessee has much work to do to improve the quality of teaching in science across the state.

**TABLE 7**  
**Teacher Effectiveness Summary for Science**

<b>Table of Teacher Rating by Poverty Category</b>			
<b>Teacher Rating</b>	<b>Poverty Category</b>		
	<b>High Poverty</b>	<b>Low Poverty</b>	<b>Middle</b>
Highly Effective (Level 4,5)	20.7	38.0	30.3
Average Effectiveness (Level 3)	45.2	35.0	34.9
Approaching Average Effectiveness - (Level 2)	19.0	10.6	15.6
Ineffective (Level 1)	15.1	16.4	19.2

(SAS Institute Inc., 12/17/2009)

Table 8 combines teacher effect data for all three subjects, reading/language arts, mathematics, and science. The combined data reveal that the percentage of highly effective teachers (Levels 4, 5) is nearly 11 percentage points lower in high poverty schools (23.4%) than in low poverty schools (34.2%). The discrepancy in the distribution of ineffective teachers is significantly smaller at roughly three percentage points (15.5% in high poverty schools as compared to 12.2% in low poverty schools). Overall, the majority of teachers fall in the approaching average effectiveness (Level 2) and average effectiveness (Level 3) categories regardless of school poverty status. Once again the data indicate the need for strong professional development for all teachers and an emphasis on improved teacher recruitment.

**TABLE 8**  
**Teacher Effectiveness Summary for All Subjects**

<b>Table of Teacher Rating by Poverty Category</b>			
<b>Teacher Rating</b>	<b>Poverty Category</b>		
	<b>High Poverty</b>	<b>Low Poverty</b>	<b>Middle</b>
Highly Effective (Level 4,5)	23.4	34.2	27.1
Average Effectiveness (Level 3)	45.0	42.2	43.7
Approaching Average Effectiveness - (Level 2)	16.1	11.4	13.9
Ineffective (Level 1)	15.5	12.2	15.3

(SAS Institute Inc., 12/17/2009)

## **B. Specific Strategies for Addressing Inequities in Teacher Assignment**

**Goal:** To ensure the equitable distribution of teachers in high poverty schools by developing a plan to ensure that students in high poverty schools have equitable access to highly qualified, highly effective teachers and are not served by unqualified, ineffective teachers at higher rates than other students.

### **Measurements:**

- Percentage of highly-qualified teachers in high poverty from TDE/district data files
- Percentage of highly-effective teachers in high poverty from TVAAS teacher effect scores
- Workplace perceptions from teacher working conditions survey results
- Equitable distribution of school-level per pupil expenditures from state and local funds as measured by the USDOE Study of School-level Expenditures

Tennessee will continue (and scale up) two statewide strategies for addressing inequities in teacher assignment that were included in the 2006 Equity Plan.

**Strategy 1:** Continuous analysis, dissemination, and training on the use of data relevant to increasing the percentage of highly-effective teachers and improving the distribution of highly effective teachers in high poverty schools.

Recipients	Activities	Responsibility	Timeline
Teachers/Principals Districts/State	Teacher and district/school training on the interpretation of electronic score reports	SEA/LEA	2010-11; annually
	Teacher Effect Scores reported electronically to teachers, principals, and districts	SEA	2010-11; annually
	Electronic dashboard provided to analyze student data for interventions	SEA/LEA	2010-11; annually
	Individualized teacher and administrative professional development linked to diagnostic component on teacher effect score reports	LEA/Schools	2011-12; ongoing
	Data are used to guide strategies to improve classroom instruction and increase student achievement; plans for individual and school improvement are implemented and monitored.	LEA/Schools	2010-11; ongoing

Recipients	Activities	Responsibility	Timeline
Teachers/Principals Districts/State	Teacher working conditions survey administered state-wide; results analyzed, disseminated, and used to plan improvements in the recruitment, assignment, retention, and development of highly-qualified, highly effective teachers	SEA/LEA	2010-11; annually
	School and district level reports on teacher distribution are provided.	SEA/LEA	2010-2011; annually
	School and district administrators are trained to interpret and use teacher distribution reports.	SEA/LEA/Schools	2010-2011; annually
	District administrators use teacher distribution data to plan district/school intervention strategies and evaluate their effectiveness.	LEA	2010-2011; annually
	School-level per pupil salary expenditure data are used to examine the extent to which school-level resources are distributed equally within their districts; plans to address identified inequities are developed and implemented.	LEA	2010-2011; annually
	Principal assignments are evaluated in light of AYP results, school value-added, and working conditions survey results	LEA	2011-2012; annually
	Principal evaluations include student academic growth measures and working conditions survey results	LEA	2012-2013; annually
	Teacher evaluations include the use of teacher effect data	LEA/Schools	2012-2013; annually
	Teacher induction programs and new teacher mentoring programs reflect activities to strengthen teacher effectiveness	LEA/Schools	2011-2012; annually
	Districts are trained and provided resources to conduct a human resources alignment assessment to determine the degree to which programs, policies, and requirements support the equitable distribution of highly qualified, highly effective teachers and strategies to increase teacher effectiveness overall.	SEA/LEA	2010-2011; annually

These analyses will be disseminated through the following:

- The State's Website
- Electronic and face-to-face meetings with LEAs
- Reports to the State Board of Education

**Strategy 2:** The Tennessee Department of Education will continue partnering with the Appalachia Regional Comprehensive Center (ARCC) and utilize resources from the National Comprehensive Center for Teacher Quality (NCCTQ) to provide technical assistance to districts in choosing and implementing specific policies and practices to address inequities in teacher assignment. The technical assistance will be provided through Web meetings with LEAs, Webpages with links to promising strategies, and individual or group meetings with districts. These policies and practices may include topics, such as:

- Financial incentives such as performance pay, alternative compensation, and salary increases\*
- Working conditions\*
- Mentoring and induction programs\*
- Hiring and transfer practices\*
- Resource allocation and distribution\*
- Comparisons of cost-effectiveness of various incentives and policies\*
- Tuition incentives for teachers in high poverty, high-minority schools to complete content-area coursework\*\*
- Preparation programs to train pre-service teachers to succeed in high poverty, high-minority schools\*\*
- Retention programs to support and increase the skills of current teachers in high poverty, high-minority schools\*\*
- Pathways to recruit qualified professionals to teach in high poverty, high-minority schools\*\*
- Professional development programs\*\*
- Tennessee Statewide System of Support services to districts and schools, including the System of Targeted Assistance Team (STAT), Achievement Gap Elimination (AGE), and Exemplary Educators (EE), District and School Appraisals, School Improvement Process, and Comprehensive System Planning Process\*\*

\* External resources that provide information on evidenced-based effective practices, such as those found on the Appalachia Regional Comprehensive toolkits and from ARCC staff assigned to assist TDE as well as in documents such as *The Distribution of Highly Qualified, Experienced Teachers: Challenges and Opportunities* (2009) from NCCTQ, are readily available to the TDE.

\*\* Internal resources available from the Tennessee Department of Education.

### **C. Evidence for the Probable Success of the Strategies**

All strategies included in this Teacher Equity Plan are drawn from comprehensive literature reviews of effective practices (primarily from the National Comprehensive Center for Teacher Quality). Strategies centered on building human capital from sources such as the Strategic Management of Human Capital (SMHC) at the Consortium for Policy Research in Education, Wisconsin Center for Education Research (CPRE) were reviewed, and the recommendation for a human resources alignment assessment was included as an activity. The Tennessee projects continue to draw on the teacher effectiveness research of William Sanders and June Rivers.

All Tennessee schools will benefit from what is learned from both privately and publicly funded projects based on strategies with proven effectiveness at targeted sites, including the following:

- Memphis City Schools was awarded a Gates grant to reform its teacher recruitment, evaluation, development, retention, and dismissal processes to ensure that Memphis City Schools has the most effective teachers in its classrooms and that they are distributed equitably across schools
- Hamilton County Schools, where Chattanooga is located, uses teacher effect scores generated by Tennessee's Value-Added Assessment System (TVAAS) for differential recruitment, development, and retention of its most effective teachers through a public/private partnership known as the Benwood Foundation
- Knox County Schools participated in the Teacher Incentive Fund grant and implemented the Teacher Advanced Program (TAP) at pilot schools with positive results
- Metropolitan Nashville Public Schools partnered with the federally-funded Center for Performance Pay at Vanderbilt University to implement a vigorous research study on the use of performance pay to increase teachers' effectiveness as measured by student growth
- Tennessee Department of Education Pathways program recruits qualified professionals to teach in high poverty, high-minority schools
- The Tennessee Department of Education Teach Tennessee program trains teachers under the state's Transition to Teaching grant using strategies with proven effectiveness

### **D. SEA Plan to Examine the Issue of Equitable Teacher Assignment in Monitoring LEAs**

According to the State's analysis of data related to teacher equity, the Department will prioritize specific technical assistance to LEAs that have either failed to meet their benchmarks for the percentage of core academic courses taught by highly qualified, highly effective teachers or have demonstrated large disparities in teacher characteristics between their high poverty and low poverty schools. The Tennessee Department of Education (TDE) will convene special professional development activities for the LEAs that have been identified. These activities will then be followed by regional and on-site technical assistance for the identified LEAs by the TDE.

<b>Objective</b>	<b>Action Steps</b>	<b>Time Frame</b>
Require LEAs that show inequities in teacher assignment to analyze their data to determine causes and develop specific steps to address gaps	<ul style="list-style-type: none"> <li>• Identify LEAs with most significant gaps</li> <li>• Train LEAs to analyze teacher distribution data and develop specific steps to address the gaps</li> <li>• LEAs analyze data and develop their teacher equity plan</li> <li>• LEAs submit their equity plan to the State for review and approval</li> <li>• LEAs review current data, evaluate effectiveness of strategies implemented, and revise their equity plans</li> </ul>	<ul style="list-style-type: none"> <li>• 2010-2011; annually</li> </ul>
Target specific intervention strategies for high priority schools with teacher equity gaps	<ul style="list-style-type: none"> <li>• Identify LEAs with most significant teacher equity gaps in high priority schools</li> <li>• Provide specialized training to assist identified LEAs with analyzing the teacher quality data in these high priority schools and identifying strategies that will attract and retain high quality teachers to their high priority schools</li> <li>• Require the LEAs to develop an analysis of the teaching staff of high priority schools compared with their other schools in the district</li> <li>• Require the LEAs to develop specific strategies to attract and retain their most highly effective teachers to these schools</li> <li>• Require the LEAs to submit annually to the State these specialized plans for high priority schools with their equity plans</li> <li>• Require the LEAs to gain state approval of their plans, including the use of available resources to implement the plans</li> </ul>	<ul style="list-style-type: none"> <li>• 2010-2011; annually</li> </ul>
Redirect the federal education resources in LEAs that have not reduced the gaps in teacher distribution and have high priority schools to target improvements	<ul style="list-style-type: none"> <li>• Identify LEAs that are not reducing the gap in teacher distribution and who also have high priority schools</li> <li>• Redirect their NCLB Consolidated Application funds and school improvement funds to target improvement in teacher quality in their high poverty schools and/or high priority schools</li> </ul>	<ul style="list-style-type: none"> <li>• 2010-2011; annually</li> <li>• 2010-2011; annually</li> </ul>

## Tennessee Race to the Top – Appendix D-3-8

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### MEASURES OF PRINCIPAL EFFECTIVENESS

Through its value-added assessment system, Tennessee can also measure effectiveness of its principals. Following are statistics about principal effectiveness in 2008-2009.

#### Principal Effectiveness based on School Math Gain Scores

Percentage of principals leading schools that are high-poverty (as defined in this notice) who are highly effective (as defined in this notice).	40.25
Percentage of principals leading schools that are low-poverty (as defined in this notice) who are highly effective (as defined in this notice).	44.69
Percentage of principals leading schools that are high-poverty (as defined in this notice) who are ineffective.	31.14
Percentage of principals leading schools that are low-poverty (as defined in this notice) who are ineffective.	30.67

#### Principal Effectiveness based on School Science Gain Scores

Percentage of principals leading schools that are high-poverty (as defined in this notice) who are highly effective (as defined in this notice).	27.85
Percentage of principals leading schools that are low-poverty (as defined in this notice) who are highly effective (as defined in this notice).	49.76
Percentage of principals leading schools that are high-poverty, high-minority, or both (as defined in this notice) who are ineffective.	30.38
Percentage of principals leading schools that are low-poverty, low-minority, or both (as defined in this notice) who are ineffective.	23.91

## Tennessee Race to the Top – Appendix D-3-9

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### EQUITABLE DISTRIBUTION BY SUBJECT

Following is additional information about equitable distribution of effective teachers broken out by subject area, based on 2008-2009 data.

#### Reading/Language Arts

Percentage of teachers in schools that are high-poverty (as defined in this notice) who are highly effective (as defined in this notice).	16.24
Percentage of teachers in schools that are low-poverty (as defined in this notice) who are highly effective (as defined in this notice).	28.15
Percentage of teachers in schools that are high-poverty (as defined in this notice) who are ineffective.	32.89
Percentage of teachers in schools that are low-poverty (as defined in this notice) who are ineffective.	18.60

#### Math

Percentage of teachers in schools that are high-poverty (as defined in this notice) who are highly effective (as defined in this notice).	34.88
Percentage of teachers in schools that are low-poverty (as defined in this notice) who are highly effective (as defined in this notice).	38.80
Percentage of teachers in schools that are high-poverty (as defined in this notice) who are ineffective.	37.58
Percentage of teachers in schools that are low-poverty (as defined in this notice) who are ineffective.	27.55

#### Science

Percentage of teachers in schools that are high-poverty (as defined in this notice) who are highly effective (as defined in this notice).	20.70
Percentage of teachers in schools that are low-poverty (as defined in this notice) who are highly effective (as defined in this notice).	37.96
Percentage of teachers in schools that are high-poverty (as defined in this notice) who are ineffective.	34.08
Percentage of teachers in schools that are low-poverty (as defined in this notice) who are ineffective.	27.00

Tennessee Race to the Top – Appendix D-4-1

**Table 1: Timeline for Improving Teacher and Leader Preparation**  
**Reform Plan Criterion D(4)**

<b>Goal: To improve the effectiveness of teacher and principal preparation programs</b>			
<b>For all of these activities, the responsible parties will be the Department of Education (TDOE), the State Board of Education (SBE), and the Tennessee Higher Education Commission (THEC).</b>			
<b>Year 1 2010-11</b>	<b>Year 2 2011-12</b>	<b>Year 3 2012-13</b>	<b>Year 4 2013-14</b>
THEC, SBE, and the DOE to collaborate with teacher preparation programs to design a reporting mechanism to collect data on pre-service teachers and teachers seeking additional licenses and endorsements	Teacher preparation programs to report data on students recommended for teacher licensure that includes pre-service teachers in traditional preparation programs as well as alternative licensure programs.  SBE to work with THEC, the DOE, and teacher/principal preparation programs to implement a feedback loop for preparation programs to report on program modifications.	Institutional feedback reports will be supplied to SBE.	Institutional feedback reports will be supplied to SBE.
THEC to develop a secure reporting platform to collect data from all teacher preparation programs.	Preparation programs will also report data pertaining to teachers being recommended for leadership licenses.	State to consider scaling quality programs, based on the needs of the state, while limiting support for those programs that produce less effective results.	Feedback reports will be included in the teacher preparation report card as evidence for improvement.

<p>Panel of education leaders and stakeholders to examine the three variables studied and determine what other measurements accurately reflect program effectiveness.</p>	<p>Incorporate data on preparation programs into the teacher education data warehouse, the teacher and principal supply and demand studies, and the teacher preparation program report cards.</p>		<p>SBE to re-evaluate program certification policies based upon including teacher preparation improvement data</p>
<p>Panel to examine teacher and principal Supply/Demand Studies and Report Card redesign options, if any, so the data are clear and easily understood</p> <p>Panel to examine reporting of effectiveness by principal preparation programs, including report card similar to teacher preparation programs.</p>	<p>Panel to create a work plan for implementation; issue reports.</p> <p>Panel to work on issues of report card usage, such as the renewal or non-renewal of state approval for teacher or principal preparation institutions that are shown to be ineffective. Issues to be discussed include using at least three years' worth of data to assess effectiveness.</p>	<p>Issue reports.</p> <p>Effectiveness information by principal preparation program available starting this year.</p>	<p>THEC to introduce measures into its state performance funding incentive program to reward state institutions on improvements in teacher and school leader preparation programs based on data derived from teacher and principal supply/demand studies and the Report Card on the Effectiveness of Teacher Training Programs; these Performance Funding Program measures will require teacher preparation programs to establish annual benchmarks and five-year goals for program productivity. Like benchmarks and five-year goals will be set for qualitative program improvements.</p>

Tennessee Race to the Top – Appendix D-5-1

**Table 1: Timeline for Providing Effective Support to Teachers and Principals**  
**Reform Plan Criterion D(5)**

<b>Goal: To ensure that the state provides, measures, and improves data-driven professional development for teachers and principals that is linked back to student growth and the overall human capital system.</b>			
<b>For all of these activities, the responsible party will be the Tennessee Department of Education, in partnership with LEAs.</b>			
Year 1 2010-11	Year 2 2011-12	Year 3 2012-13	Year 4 2013-14
Finalize quality criteria for professional development programs and which of these programs will be offered through state funding (June 2010).	Propose professional development expenditures based upon past and preliminary teacher and principal evaluation data to address specific developmental areas.	Propose professional development expenditures based upon teacher and principal evaluation data to address specific developmental areas.	Propose professional development expenditures based upon teacher and principal evaluation data to address specific developmental areas.
Determine quality benchmarks for professional development programs, providers and consultants.	Working with the TN CRED, create initial framework for measuring efficacy of professional development programs.	Use data system to measure and publicly report on the efficacy of professional development providers, mapping participants' improvement back to the source of their training and only continue to fund those programs that demonstrate results.	Use data system to measure and publicly report on the efficacy of professional development providers, mapping participants' improvement back to the source of their training and only continue to fund those programs that demonstrate results.sw

Educators receive accounts and passwords for the TVAAS system (started in January 2010).	Require LEAs to demonstrate how they will use the tools available to them through the data dashboard and training provided by the SAS Institute and others to be responsive to the needs of educators in their district.		
Educators trained in the functionality and use of the dashboard.	Require LEAs participating in Race to the Top to show the alignment of local funding to improving teacher and principal effectiveness.		
Training modules available online for all to access as they have additional needs.	Require participating LEAs who have Renewal Schools and schools eligible for the Achievement School District to demonstrate how their approach to this alignment serves both the individual educator and the school reform efforts in a consistent and cohesive manner.		
Track, analyze, and report the percentage increase in teachers using this data to improve their practice.	Contract with an external organization to develop a principal effectiveness laboratory that will capture the		

	evidence of the practices that have been demonstrated to improve student achievement using TVAAS data and other factors, placing an emphasis on high-poverty, high-performing schools statewide, particularly in rural schools.		
Include the percentage increase in teachers using data to improve instruction on school report cards and principal evaluations.			
Continue use of Tennessee's Exemplary Educators Program to assist schools in strategic planning, school improvement and building staff capacity.			
Continue use of Field Service Centers to help schools analyze their data, create a professional development plan, and choose among effective professional development providers.			
Provide high quality content and course delivery mapped to the areas where current teacher effect data already indicates a significant need through providers identified through a DOE Request for Information.			

Provide online professional development through the Tennessee Electronic Learning Center to make learning accessible to educators in all parts of our state at their convenience.			
Expand SAS professional development to support the use of data for instructional and professional development purposes.			
Provide PBS online content through the Electronic Learning Center to amplify the professional development and curricular options with embedded assessments in a variety of disciplines, but particularly science-related content. <i>STEM</i>			
Expand the Save the Children literacy program.			
Expand STEM Center Math & Science Teacher Training through identified programming at the designated STEM Centers at East Tennessee State University/Center of Excellence in Math & Science, Tennessee Technological			

University/Millard Oakley STEM Center, Middle Tennessee State University/Tennessee Mathematics, Science and Technology Education Center and the University of Memphis. <sup>STEM</sup>			
Expand SITES-M, Strengthening Instruction in Tennessee Elementary Schools: Focus on Mathematics. <sup>STEM</sup>			
Over the course of the first three years of Race to the Top, grant up to total of \$15 million in competitive funds for districts that commit to making the transition to fully realized compensation models for teachers and principals in the district.			
Expand Oak Ridge Affiliated Universities (ORAU) STEM Training Academy. <sup>STEM</sup>			

<p>Establish the Tennessee STEM (science, technology, engineering and math) Innovation Learning Network<sup>STEM</sup> – a network of innovative teachers, schools and districts to support and learn from each other in affecting student outcomes in the STEM disciplines with a focus on underrepresented students managed by the State of Tennessee in partnership with Battelle Memorial Institute in its role as the operator of Oak Ridge National Energy Laboratory in concert with the University of Tennessee-Knoxville.</p>			
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**ACCOUNTABILITY**

**49-1-602. Placement in improvement status for schools and LEAs. —**

**(a)** By September 1 of each year, the commissioner of education shall recommend for approval to the state board a listing of all schools and LEAs to be placed in improvement status for failure to make adequate progress in meeting the rules, regulations and performance standards of the state board. If an LEA is deemed by the commissioner as not carrying out its responsibilities to a school or schools in improvement status for technical or other assistance that may ensure that a school meet or exceed the performance standards, or the standards set forth in §49-1-210, the LEA may be included in the recommendation to the state board to be placed in improvement status. Schools and LEAs in improvement status shall abide by guidelines established by the commissioner for the purpose of improving student performance.

**(b)** Such status shall not impair the credits earned by students in that LEA or school.

**(c)** During the first year a school is placed in improvement status (School Improvement 1), the commissioner of education shall:

**(1)** Publicly identify all schools that are placed in improvement status; and

**(2)** Study all schools placed in improvement status.

**(d)** If a school does not meet the performance standards of the state board by the end of the first year of improvement status, the school may be placed in the second year of improvement status (School Improvement 2). During the second year of improvement status:

**(1)** The commissioner of education shall have the authority to:

**(A)** Approve the allocation of state discretionary grants to the school; and/or

**(B)** Provide technical assistance to the school through an outside expert; and

**(2)** The director of each LEA serving schools in the second year of improvement status shall have responsibility for the following actions:

**(A)** Prompt notification of parents of students of such identification; and

**(B)** Revision of school improvement plans.

**(e)** If a school does not meet the performance standards of the state board by the end of the second year of improvement status, the school may be placed in the third year of improvement status (Corrective Action). During the third year of improvement status:

**(1)** The commissioner of education shall:

**(A)** Have the authority to approve the LEA's allocation of financial resources to a school in corrective action;

**(B)** Have the authority to appoint a local community review committee to approve and monitor the school improvement plan; and

**(C)** Implement at least one (1) or more of the following corrective actions:

**(i)** Replace or reassign staff;

**(ii)** Mandate a new, research-based curriculum;

**(iii)** Significantly decrease management authority at the school;

**(iv)** Appoint instructional consultants; and

**(v)** Reorganize the internal management structure; and

**(2)** The director of each LEA serving schools in the third year of improvement status shall have responsibility for the following actions:

**(A)** Prompt notification to parents of students of such identification;

**(B)** Implementation of performance contracts for the principal;

**(C)** Provision for remediation services for students;

**(D)** Notification to parents of students belonging to the student subgroup or subgroups not meeting the standards for adequate yearly progress of their option to transfer their children to another public school within the system; and

**(E)** Revision of school improvement plans to incorporate study findings.

**(f)** If a school does not meet the performance standards of the state board by the end of the third year in improvement status, the school may be placed in the fourth year of improvement status (Restructuring 1). During the fourth year of improvement status:

**(1)** The commissioner of education shall have the authority to:

**(A)** Approve an LEA's allocation of financial resources to the school;

**(B)** Approve an LEA's allocation of personnel resources to the school; and

**(C)** Present options for the school to plan for alternative governance, which may include:

**(i)** Contracting with an institution of higher education for operation of the school;

**(ii)** Removing the school from the jurisdiction of the LEA and placing the school under the jurisdiction of the department of education;

**(iii)** Restructuring the school as a public charter school should the general assembly enact separate legislation outside the parameters of this section that authorizes the establishment of public charter schools; or

**(iv)** Replacing all or most of the school's staff, including the principal, who are relevant to the school's failure to meet adequate yearly progress; and

**(2)** The director of each LEA serving schools in the fourth year of improvement status shall have responsibility for the following actions:

**(A)** Prompt notification to parents of students of such identification;

**(B)** Implementation of performance contracts for the principal;

**(C)** Provision for remediation services for students;

**(D)** Notification to parents of students belonging to the student subgroup or subgroups not meeting the standards for adequate yearly progress of their option to transfer their children to another public school within the system; and

**(E)** Preparation of a plan for alternative governance from the options provided by the commissioner of education.

**(g)** If the school does not meet the performance standards of the state board by the end of the fourth year of improvement status, the school may be placed in the fifth year of improvement status (Restructuring 2 — Alternative Governance). During the fifth year of improvement status:

**(1)** The commissioner of education shall have the authority to:

**(A)** Approve an LEA's allocation of financial resources to schools; and

**(B)** Approve an LEA's allocation of personnel resources to the schools; and

**(2)** The director of each LEA serving schools in the fifth year of improvement status shall

have responsibility for the following actions:

**(A)** Prompt notification to parents of students of such identification;

**(B)** Implementation of performance contracts for the principal;

**(C)** Provision for remediation services for students;

**(D)** Notification to parents of students belonging to the student subgroup or subgroups not meeting the standards for adequate yearly progress of their option to transfer their children to another public school within the system; and

**(E)** Implementation of the plan for alternative governance from the options provided by the commissioner of education; provided, however, that, in the case where the plan for alternative governance is implemented, the LEA will continue to be accountable for the match required by the BEP funding formula for students served.

**(h)** During the first year an LEA is placed in improvement status (LEA Improvement 1), the commissioner of education shall:

**(1)** Publicly identify all LEAs placed in improvement status; and

**(2)** Study all LEAs placed in improvement status.

**(i)** If the LEA does not meet the performance standards of the state board by the end of the first year in improvement status, the LEA may be placed in the second year of improvement status (LEA Improvement 2). During the second year of improvement status:

**(1)** The commissioner of education shall have the authority to:

**(A)** Approve the allocation of state discretionary grants to schools within the LEA; and

**(B)** Provide technical assistance to the LEA through an outside expert; and

**(2)** The director of each LEA in the second year of improvement status shall have responsibility for the following actions:

**(A)** Prompt notification to parents of students of such identification; and

**(B)** Revision of the LEA improvement plan.

**(j)** If the LEA does not meet the performance standards of the state board by the end of the second year in improvement status, it may be placed in the third year of improvement status (LEA Corrective Action). During the third year of improvement status:

**(1)** The commissioner of education shall have the authority to take the following actions:

**(A)** Approve an LEA's allocation of financial resources to schools within the LEA; and

**(B)** Appoint a local community review committee to approve and monitor the LEA improvement plan;

**(2)** The commissioner of education shall implement one (1) or more of the following corrective actions:

**(A)** Replace the LEA personnel who are relevant to the failure to make adequate yearly progress;

**(B)** Mandate a new, research-based curriculum;

**(C)** Appoint outside management or instructional consultants; or

**(D)** Reorganize the internal management structure; and

**(3)** The director of the LEA in the third year of improvement status shall have the responsibility for the following actions:

**(A)** Prompt notification to parents of students of such identification;

**(B)** Provision for remediation services for students; and

**(C)** Revision of the LEA improvement plan to incorporate study findings.

**(k)** If the LEA does not meet the performance standards of the state board by the end of the third year of improvement status, it may be placed in the fourth year of improvement status (LEA Restructuring 1). During the fourth year of improvement status:

**(1)** The commissioner of education shall have the authority to take the following actions:

**(A)** Approve an LEA's allocation of financial resources to schools within the LEA; and

**(B)** Approve an LEA's allocation of personnel resources to schools within the LEA;

**(2)** The commissioner of education shall continue to implement one (1) or more of the following corrective actions:

**(A)** Replace the LEA personnel who are relevant to the failure to make adequate yearly progress;

**(B)** Mandate a new, research-based curriculum;

**(C)** Appoint outside management or instructional consultants; or

**(D)** Reorganize the internal management structure; and

**(3)** The director of each LEA serving schools in the fourth year of improvement status shall have responsibility for the following actions:

**(A)** Prompt notification to parents of students of such identification;

**(B)** Provision for remediation services for students; and

**(C)** Revision of the LEA improvement plan.

**(I)** If the LEA does not meet the performance standards of the state board by the end of the fourth year in improvement status, it may be placed in the fifth year of improvement status (LEA Restructuring 2 — Alternative Governance). During the fifth year of improvement status:

**(1)** The commissioner of education shall have the authority to:

**(A)** Assume any or all powers of governance for the LEA; provided, however, that, in the case where the commissioner assumes governance, the LEA will continue to be accountable for the match required by the BEP funding formula for students served;

**(B)** Recommend to the state board that the director of the LEA be replaced; and

**(C)** Recommend to the state board that some or all of the local board of education members be replaced;

**(2)** If the commissioner decides not to take any of the three (3) actions in subdivision **(I)**(1), then the commissioner shall report to the state board of education and the education committees of the senate and the house of representatives the reasons that the actions were not taken; and

**(3)** If the state board concurs with the recommendation, the commissioner shall order the removal of some or all of the board members or director of schools, or both, and shall declare a vacancy in the office or offices. Vacancies on the board shall be filled by the local legislative body until the next general election for which candidates have time, under law, to qualify and the candidate so elected qualifies to hold the office as provided by law or for the remainder of the term if no such election occurs during the remainder of the term. If the entire board of a special school district is removed, the commissioner shall appoint three (3) responsible citizens of the district to serve on the board, and they shall be authorized to appoint persons to fill the remaining vacancies. Any person selected to fill a vacancy shall serve the remainder of the term.

Vacancies in the office of director of schools are filled in accordance with the provisions of law. Any director of schools or board member removed under this section is ineligible for appointment or election to the office for the remainder of the person's term and for one (1) full term thereafter.

**(m) (1)** An appeal of the decision to remove a director or board member shall be to chancery court of Davidson County.

**(2)** The chancellor's review shall be confined to whether or not the decision was made in accordance with the procedures authorized by this section.

**(n) (1)** Notwithstanding any law to the contrary, the two (2) school systems having the greatest number of schools placed on notice or probation status pursuant to this section may establish an inner city educational enhancement pilot project in accordance with the requirements of this subsection (n); provided, however, that no such pilot project shall be established by the LEA without advance approval by the appropriate local legislative body.

**(2)** The inner city educational enhancement pilot project shall consist of after-school programs at all or a significant portion of the LEA's schools placed on notice or probation status. The pilot project may also include before-school, Saturday or summer programs at such schools. Pilot project programs and services shall include, but need not be limited to, the following:

**(A)** Reading skills development and enhancement;

**(B)** Math and science skills development and enhancement;

**(C)** Computer literacy and skills development;

**(D)** Tutoring and homework supervision and assistance;

**(E)** Individualized assessment and remedial instruction;

**(F)** Academic mentoring; and

**(G)** Life experiences enrichment opportunities.

**(3)** Programs and services shall be principally provided by qualified volunteers who are retired teachers, university professors, law enforcement officers, armed forces veterans, members of the Urban League or public employees. At the discretion of the appropriate local legislative body, incentive grants may be offered to the volunteers. The amount of the incentive grants shall vary according to the number of hours actually donated; provided, however, that in any given year, no volunteer shall receive incentive grants totaling more than an amount that equals one half ( $\frac{1}{2}$ ) of the local real property tax previously paid by the volunteer on the person's principal place of residence for the most recently concluded tax year. Notwithstanding any law to the contrary, receipt of an incentive grant shall not affect, reduce, suspend or in any other way impair the volunteer's status or benefits level within any retirement program operated by or on behalf of the state or any unit of local government within the state.

**(o)** The office of education accountability established in §4-3-308 shall periodically study the overall school accountability system and report to the general assembly as to its operations and effectiveness, including any suggestions for improvement. The report may include a review of applicable standards, technical assistance, actions taken by LEAs and relevant outcomes.

[Acts 1992, ch. 535, § 4; 1997, ch. 434, § 2; 2002, ch. 860, §§ 1-7; 2003, ch. 404, § 2; 2004, ch. 680, §§ 1, 2; 2004, ch. 928, §§ 6, 7; 2007, ch. 11, §§ 1-3; 2007, ch. 376, §§ 1, 8; 2008, ch. 1006, § 1.]

### **Summary of Tennessee’s Accountability Continuum**

Tennessee will hold every public school and LEA in the state accountable, including charter schools. Only K-2 schools do not participate in the standardized state assessment system. These schools will be held accountable based on the performance of their receiving schools.

All schools, Title I and non-Title I, will be held to the same Adequate Yearly Progress (AYP) measures. The State will identify their progress in meeting those objectives by the required disaggregated subgroup populations on the State’s report card. Schools that contain grade configurations that cross both AYP levels (elementary/middle and secondary) will be held accountable for meeting AYP for both levels.

In order for schools and LEAs to make AYP, each must meet or exceed:

- A 95% participation rate in the required TCAP accountability tests for all students and for each student subgroup;
- Annual measurable objectives in reading/language arts and math for all students and for each student subgroup with the application of a 95% confidence interval, and,
- Performance objectives for the additional indicator for all students or show improvement in meeting the objectives.

In calculating AYP for student subgroups, 45 or more students must be included to assure high levels of reliability.

Schools and districts are able to meet AYP by using their most current year data; most current two-year averages; or three-year rolling averages (when available).

The TCAP answer sheet identifies students who have been in the school, district, or state continuously for less than a full academic year. When the State analyzes test results for the purposes of accountability, only students who were in the school, district, or state for the full academic year are included in the appropriate category(s).

A full academic year is defined as continuous enrollment in a school, district, or the state from at least one day of the first reporting period (consisting of the first 20 days of the school year and reported October 31) until test administration. This information is required to be coded on the students’ test answer sheets. In cases in which students are absent because of suspension, the suspended students are still considered enrolled in the school.

The State’s definition of AYP includes primarily academic indicators:

1. For grades 3-8:
  - Reading/language arts/writing and math results; and,
  - Attendance rate.
2. For high school;
  - High School Reading/Language Arts and Writing assessment results and High School Math; and,
  - Graduation rate.

Reading/language arts in grades 3-8 includes the standards-based assessment and the performance-based writing assessment. Reading/language arts in high school includes the standards-based Reading/Language Arts assessment and the 11<sup>th</sup> grade performance based writing assessment.

For grades 3-8, the reading/language arts score were determined by averaging the Reading/Language Arts Composite Proficiency Score with the Writing Proficiency score as follows:

- Grades 5 and 8 at the weight of 1 part Reading/Language Arts Composite Proficiency Score and .5 part Writing Proficiency Score; and,
- Grades 3, 4, 6, and 7 at the weight of 1 part Reading/Language Arts Composite Proficiency Score.

For high school, the reading/language arts scores were determined by averaging the High School English Proficiency Score at the weight of 1 part and the 11<sup>th</sup> Grade Writing Proficiency Score at .5 part.

Tennessee’s accountability system has incorporated all AYP requirements including annual measurable objectives that are applied to all public schools in the State. Annual measurable objectives and goals are the same for the State, every LEA, every school, and all required subgroups of students.

***Tennessee’s Targets for Reading/Language Arts and Math at the Elementary/Middle School Level Determined by the Percent of Students at the Proficient or Above Levels***

<b>School Year</b>	<b>Reading/Language Arts Target</b>	<b>Math Target</b>	<b>Attendance Rate</b>
2002-2003 through 2003-2004	77%	72%	93%
2004-2005 through 2006-2007	83%	79%	93%
2007-2008 through 2009-2010	89%	86%	93%
2010-2011 through 2012-2013	94%	93%	93%
2013-2014	100%	100%	93%

***Tennessee’s Targets for Reading/Language Arts and Math at the High School Level Determined by the Percent of Students at the Proficient or Above Levels***

<b>School Year</b>	<b>Reading/Language Arts Target</b>	<b>Math Target</b>	<b>Graduation Rate</b>
2002-2003 through 2003-2004	86%	65%	90%
2004-2005 through 2006-2007	90%	75%	90%
2007-2008 through 2009-2010	93%	83%	90%
2010-2011 through 2012-2013	97%	91%	90%
2013-2014	100%	100%	90%

If a school or LEA fails to meet annual measurable objectives, a school or LEA may make AYP if the subgroup not making AYP reduces the percent of below proficient students by 10% from the previous year,

19% from two years previously, or 27% from three years previously – and makes progress on the additional indicator.

Under flexibility granted through the growth model pilot program, elementary/middle schools and the elementary/middle level for districts may also meet annual measurable objectives using students' projected scores on future assessments. In the growth model, the State will use all 4<sup>th</sup> grade students' projected scores on the 7<sup>th</sup> grade assessment, 5<sup>th</sup> grade students' projected scores on the 8<sup>th</sup> grade assessment, and 6<sup>th</sup> – 8<sup>th</sup> grade students' projected scores on the high school assessment. The State will apply current year scores for 3<sup>rd</sup> grade students, students new to the State testing system, and students assessed under alternative standards. To meet AYP through this option, schools and districts must meet the annual measurable objectives for each student subgroup without the application of a confidence interval.

All schools, Title I and non-Title I, which fail to meet annual measurable objectives in the same content area (math or reading/language arts) or the additional indicator (attendance rate or graduation rate) for two consecutive years are identified as in improvement status or moved to the next improvement category, according to the Accountability Chart found in Attachment A.

All districts which fail to meet annual measurable objectives in both their elementary/middle school and high school levels in a single content area (math or reading/language arts) or the additional indicator (attendance rate and graduation rate) for the first year are identified as LEA Target status. If the district misses the same, or another, single content area at both the elementary/middle school and the high school levels for the second year, the district is identified as in LEA Improvement status, or moved to the next improvement category, according to the Accountability Chart found in Attachment B. The State uses the "Same Subject, All Grade Spans" practice. Districts which contain only one grade span level, either elementary/middle or high school, and fail to meet annual measurable objectives in the same content area (math and reading/language arts) or the additional indicator for two consecutive years are identified in LEA Improvement or moved to the next improvement category, according to the Accountability Chart found in Attachment B.

Schools and districts failing to meet annual measurable objectives are provided technical assistance as outlined in the following table of "Targeted Technical Assistance Teams".

## TARGETED TECHNICAL ASSISTANCE TEAMS

<b>Field Service Centers (FSC)</b>	<b>Exemplary Educators (EE)</b>	<b>Achievement Gap Elimination (AGE)</b>	<b>System Targeted Assistance Team (STAT)</b>
Systems and Schools Served	Systems and Schools Served	Systems and Schools Served	Systems Served
Level Served: Target	Level Served: All High Priority	Level Served: School Improvement 1	Status Served: All High Priority
In-service and staff development work sessions to understand and comply with NCLB, Federal, and State laws and educational policies	Long-term capacity, not continued dependency, of staff by focusing on the development of the skills necessary to increase the school's ability to assess and improve its performance	In-service and staff development work sessions to understand and comply with NCLB, Federal, and State laws and educational policies	Data Collection and prescriptions based on the status of the high priority system
	Strengthening of school's cultural norms and values and community involvement	Programs, procedures and operations specific to identifying needs relative to eliminating the achievement gap	TCSPP implementation review/evaluation/advising
Support in the school improvement planning from development, implementation, and monitoring and adjusting to ensure data-driven decisions during continuous improvement	Staff focused upon results as evidenced by improved student performance and the observable changes expected in teaching and learning	Tools to improve instructional and organizational support	Advice provided on the process used to facilitate the development, implementation, and monitoring of TSIPP
Monitoring of improvement in continuous improvement planning, school performance around AYP, and student proficiency levels		Development of training courses and curriculum materials for in-service training staff development and seminars	A library of effective practices for an effective school system
Assistance in the collection, disaggregation, analysis and synthesis of data elements	Development of effective strategies for improvement that impacts curriculum, instruction, and assessment at the school and classroom level	Professional Development activities designed to build knowledge and skills in research-based effective practices	Best practices for Decision Support Architecture Consortium (DSAC)
Assistance focusing on specific subgroups and content areas in which school/system is failing benchmarks		Promotes a continuous improvement philosophy of teaching and learning	Professional Development activities for central office personnel and principals in disseminating research-based practices
Provide professional development "Building Data Capacity in Tennessee's Target Schools" with school level personnel assigned to the school's data team	Maximizing use of time, space, and other resources; focus on student achievement, staff performance, and a safe and orderly environment	Develop and maintain records and reports including instructional training manuals, policy directions, administrative manuals, and statistical, financial and budgetary data	Assistance in development of a culture for equality and adequacy for the entire district
		A focus on eliminating the achievement gap (in specific subgroups)	Mandated solutions based on status of system (LEA)
Alignment of services between other TTATs assisting the school and/or system	Alignment of services between other TTATs assisting the school and/or system	Guidance in NCLB, Federal, and State laws and educational policies	Awareness/orientation of new curriculum standards and assessment
		Alignment of services between other TTATs assisting the school and/or system	Guidance in management of assets
			Staff Development for conferences and meetings
			Alignment of services between other TTATs assisting the school and/or system

**Attachment A**  
**Tennessee Accountability Chart for Schools**

Target	School Improvement 1 (1 <sup>st</sup> Year Improvement Status)	School Improvement 2 (2 <sup>nd</sup> Year Improvement Status)	Corrective Action (3 <sup>rd</sup> Year Improvement Status)	Restructuring 1 (4 <sup>th</sup> Year Improvement Status)	Restructuring 2 – Alternative Governance (5 <sup>th</sup> Year Improvement Status)	State/LEA Reconstitution Plan
After 1st Year Not Making AYP (Beginning Year 2)	After 2nd Year Not Making AYP (Beginning of Year 3)	After 3rd Year Not Making AYP (Beginning of Year 4)	After 4th Year Not Making AYP (Beginning of Year 5)	After 5th Year Not Making AYP (Beginning of Year 6)	After 6th Year Not Making AYP (Beginning of Year 7)	After 7th Year Not Making AYP (Beginning of Year 8)
	<p><b>TCA-49-1-602</b> The commissioner of education shall:</p> <ul style="list-style-type: none"> <li>◆ Publicly identify all schools that are placed in improvement status; and</li> <li>◆ Study all schools placed in improvement status.</li> </ul> <p>publicly identify all schools that are placed in improvement status.</p> <p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Public Notification and Dissemination</li> <li>◆ Public School Choice</li> <li>◆ Revise SIP (including 10% of funding used for professional development each year school identified)</li> <li>◆ Plan with Outside Expert</li> <li>◆ Technical Assistance</li> <li>◆ Peer Review of SIP</li> </ul>	<p><b>TCA-49-1-602</b> The commissioner of education shall have the authority to:</p> <ul style="list-style-type: none"> <li>◆ Approve the allocation of state discretionary grants to the school; and/or</li> <li>◆ Provide technical assistance to the school through an outside expert.</li> </ul> <p>The director of each LEA shall have responsibility for the following actions:</p> <ul style="list-style-type: none"> <li>◆ Prompt Parent Notification; and</li> <li>◆ Revision of SIP</li> </ul> <p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Public Notification and Dissemination</li> <li>◆ Public School Choice</li> <li>◆ Supplemental Services</li> <li>◆ Technical Assistance</li> </ul>	<p><b>TCA-49-1-602</b> The commissioner of education shall have the authority to:</p> <ul style="list-style-type: none"> <li>◆ Approve LEA allocation of financial resources to school;</li> <li>◆ Appoint a local community review committee to approve and monitor the SIP; and</li> <li>◆ Implement at least one (1) of the following Corrective Actions: <ul style="list-style-type: none"> <li>◆ Replace or reassign staff</li> <li>◆ Mandate a new research-based curriculum</li> <li>◆ Significantly decrease management authority at school</li> <li>◆ Appoint instructional consultants</li> <li>◆ Reorganize internal management structure</li> </ul> </li> </ul> <p>The director of each LEA shall have responsibility for:</p> <ul style="list-style-type: none"> <li>◆ Prompt Parent Notification;</li> <li>◆ Principal Performance Contract;</li> <li>◆ Provide Remediation;</li> <li>◆ Public School Choice;</li> <li>◆ Revision of SIP</li> </ul> <p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Public Notification and Dissemination</li> <li>◆ Public School Choice</li> <li>◆ Supplemental Services</li> <li>◆ Technical Assistance</li> <li>◆ Corrective Action (implement at least 1 of the following:): <ul style="list-style-type: none"> <li>◆ Replace staff</li> <li>◆ New curriculum</li> <li>◆ Significantly decrease management authority at the school</li> <li>◆ Appoint outside expert</li> <li>◆ Reorganize internal organization</li> </ul> </li> </ul>	<p><b>TCA-49-1-602</b> The commissioner of education shall have the authority to:</p> <ul style="list-style-type: none"> <li>◆ Approve LEA allocation of financial resources to school;</li> <li>◆ Approve LEA allocation of personnel resources to school;</li> <li>◆ Present options for school to plan for alternative governance which may include: <ul style="list-style-type: none"> <li>◆ Contract with IHE</li> <li>◆ Removing school from jurisdiction of LEA</li> <li>◆ Restructuring as public charter school</li> <li>◆ Replacing school’s staff, including principal, relevant to failure</li> </ul> </li> </ul> <p>The director of each LEA shall have responsibility for:</p> <ul style="list-style-type: none"> <li>◆ Prompt Parent Notification;</li> <li>◆ Principal Performance Contract;</li> <li>◆ Provide Remediation;</li> <li>◆ Public School Choice;</li> <li>◆ Prepare alternative governance plan from options provided by commissioner</li> </ul> <p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Public Notification and Dissemination</li> <li>◆ Public School Choice</li> <li>◆ Supplemental Services</li> <li>◆ Technical Assistance</li> <li>◆ Continue to Implement Corrective Action</li> <li>◆ Prepare a Plan and Make Necessary Arrangements for Alternative Governance (Charter School, Replace Staff, Contract for Private Management, Other Major Restructure)</li> </ul>	<p><b>TCA-49-1-602</b> The commissioner of education shall have the authority to:</p> <ul style="list-style-type: none"> <li>◆ Approve LEA allocation of financial resources to school;</li> <li>◆ Approve LEA allocation of personnel resources to school</li> </ul> <p>The director of each LEA shall have responsibility for:</p> <ul style="list-style-type: none"> <li>◆ Prompt Parent Notification;</li> <li>◆ Principal Performance Contract;</li> <li>◆ Provide Remediation;</li> <li>◆ Public School Choice;</li> <li>◆ Implement alternative governance plan from options provided by commissioner</li> </ul> <p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Prompt Notification of Affected Teachers &amp; Parents</li> <li>◆ Technical Assistance</li> <li>◆ Implement Alternative Governance <ul style="list-style-type: none"> <li>◆ Reopen as public charter school</li> <li>◆ Replace all or most of relevant school staff</li> <li>◆ Contract with a private management company</li> <li>◆ State takeover</li> <li>◆ Any other major restructuring</li> </ul> </li> </ul>	<p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Prompt Notification of Affected Teachers &amp; Parents</li> <li>◆ Technical Assistance</li> <li>◆ Implement Alternative Governance <ul style="list-style-type: none"> <li>◆ Reopen as public charter school</li> <li>◆ Replace all or most of relevant school staff</li> <li>◆ Contract with a private management company</li> <li>◆ State takeover</li> <li>◆ Any other major restructuring</li> </ul> </li> </ul>

**Attachment A**  
**Example of Status Assignments at School Level**

Year 1 – Target (Reading/Language Arts), [Math (Good Standing)]									
	All	BL	AS	HI	AM	WH	ED	SWD	ELL
Math % Tst	Y	Y	Y	Y	Y	Y	Y	Y	Y
Math % Prof	Y	Y	Y	Y	Y	Y	Y	Y	Y
Read % Tst	Y	Y	Y	Y	Y	Y	Y	Y	Y
Read % Prof	Y	Y	Y	Y	Y	Y	N	Y	Y
Attendance	Y								

The economically disadvantaged students do not make AYP at Volunteer Elementary School because they have too few students in this subgroup who are proficient or advanced in reading. The school is placed on the Target list.

Year 2 – School Improvement 1 (Reading/Language Arts), [Math (Good Standing)]									
	All	BL	AS	HI	AM	WH	ED	SWD	ELL
Math % Tst	Y	Y	Y	Y	Y	Y	Y	Y	Y
Math % Prof	Y	Y	Y	Y	Y	Y	Y	Y	Y
Read % Tst	Y	Y	Y	Y	Y	Y	Y	N	Y
Read % Prof	Y	Y	Y	Y	Y	Y	Y	Y	Y
Attendance	Y								

In Year 2, the economically disadvantaged students make AYP in reading, but the students with disabilities do not because less than 95 percent participated in testing. Therefore, by virtue of having any subgroup fail AYP for two consecutive years in the reading/language arts cell, the school is now placed in School Improvement. It is identified as a "High Priority" school.

Year 3 – School Improvement 2 (Reading/Language Arts), [Math (Good Standing)]									
	All	BL	AS	HI	AM	WH	ED	SWD	ELL
Math % Tst	Y	Y	Y	Y	Y	Y	Y	Y	Y
Math % Prof	Y	Y	Y	Y	Y	Y	Y	Y	Y
Read % Tst	Y	Y	Y	Y	Y	Y	Y	Y	Y
Read % Prof	Y	Y	Y	Y	Y	Y	Y	N	Y
Attendance	Y								

To be removed from the High Priority list, a school or district must meet AYP for two consecutive years in the same cell that got the school or district on the list originally. For example, if a school got on the High Priority list because of failing the math cell for two or more consecutive years, then it would have to make AYP in math for two consecutive years to be removed from the list. However, if the school or district failed AYP in another cell for two consecutive years or more during the time it was identified as high priority, then it would remain on the high priority list but be reclassified at a lower level.

Year 4 – School Improvement 2 – Improving (Reading/Language Arts), [Math (Target)]									
	All	BL	AS	HI	AM	WH	ED	SWD	ELL
Math % Tst	Y	Y	Y	Y	Y	Y	Y	Y	Y
Math % Prof	Y	Y	Y	N	Y	Y	Y	Y	Y
Read % Tst	Y	Y	Y	Y	Y	Y	Y	Y	Y
Read % Prof	Y	Y	Y	Y	Y	Y	Y	Y	Y
Attendance	Y								

Year 5 – School Improvement 1 (Math), [Reading (Good Standing)]									
	All	BL	AS	HI	AM	WH	ED	SWD	ELL
Math % Tst	Y	Y	Y	Y	Y	Y	Y	Y	Y
Math % Prof	Y	Y	Y	Y	Y	N	Y	Y	Y
Read % Tst	Y	Y	Y	Y	Y	Y	Y	Y	Y
Read % Prof	Y	Y	Y	Y	Y	Y	Y	Y	Y
Attendance	Y								

**Attachment B**  
**Tennessee Accountability Chart for School Systems / LEAs**

Target	LEA Improvement 1 (1 <sup>st</sup> Year Improvement Status)	LEA Improvement 2 (2 <sup>nd</sup> Year Improvement Status)	LEA Corrective Action (3 <sup>rd</sup> Year Improvement Status)	LEA Restructuring 1 (4 <sup>th</sup> Year Improvement Status)	LEA Restructuring 2 – Alternative Governance (5 <sup>th</sup> Year Improvement Status)	State/LEA Reconstitution Plan
After 1st Year Not Making AYP (Beginning Year 2)	After 2nd Year Not Making AYP (Beginning of Year 3)	After 3rd Year Not Making AYP (Beginning of Year 4)	After 4th Year Not Making AYP (Beginning of Year 5)	After 5th Year Not Making AYP (Beginning of Year 6)	After 6th Year Not Making AYP (Beginning of Year 7)	After 7th Year Not Making AYP (Beginning of Year 8)
	<p><b>TCA-49-1-602</b> The commissioner of education shall:</p> <ul style="list-style-type: none"> <li>◆ Publicly identify all LEAs that are placed in improvement status; and</li> <li>◆ Study all LEAs placed in improvement status.</li> </ul> <p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Parent Notification and Dissemination</li> <li>◆ Develop or Revise TCSP within 3 months (including 10% of funding used for professional development each year system identified)</li> <li>◆ Implement TCSP expeditiously (but no later than beginning of next school year)</li> <li>◆ Technical Assistance</li> </ul>	<p><b>TCA-49-1-602</b> The commissioner of education shall have the authority to:</p> <ul style="list-style-type: none"> <li>◆ Approve the allocation of state discretionary grants to schools within the LEA; and</li> <li>◆ Provide technical assistance to the LEA through an outside expert.</li> </ul> <p>The director of each LEA shall have responsibility for the following actions:</p> <ul style="list-style-type: none"> <li>◆ Prompt Parent Notification; and</li> <li>◆ Revision of TCSP</li> </ul> <p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Parent Notification and Dissemination</li> <li>◆ Develop or Revise TCSP within 3 months (including 10% of funding used for professional development each year system identified)</li> <li>◆ Implement TCSP expeditiously (but no later than beginning of next school year)</li> <li>◆ Technical Assistance</li> </ul>	<p><b>TCA-49-1-602</b> The commissioner of education shall have the authority to:</p> <ul style="list-style-type: none"> <li>◆ Approve LEA allocation of financial resources to schools within LEA;</li> <li>◆ Appoint a local community review committee to approve and monitor the TCSP; and</li> <li>◆ Implement at least one (1) of the following Corrective Actions: <ul style="list-style-type: none"> <li>◆ Replace LEA personnel relevant to failure to make adequate yearly progress;</li> <li>◆ Mandate a new, research-based curriculum;</li> <li>◆ Appoint outside management or instructional consultants; or</li> <li>◆ Reorganize internal management structure</li> </ul> </li> </ul> <p>The director of each LEA shall have responsibility for:</p> <ul style="list-style-type: none"> <li>◆ Prompt Parent Notification;</li> <li>◆ Provide Remediation; and</li> <li>◆ Revision of TCSP</li> </ul> <p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Parent Notification and Dissemination</li> <li>◆ Technical Assistance</li> <li>◆ SDE shall take at least one of the following corrective actions: <ul style="list-style-type: none"> <li>◆ Deferring programmatic funds or reducing administrative funds</li> <li>◆ New curriculum</li> <li>◆ Replace LEA personnel relevant to failure</li> <li>◆ Remove particular schools from LEA jurisdiction</li> <li>◆ Appoint receiver / trustee</li> <li>◆ Abolish / restructure LEA</li> <li>◆ Public LEA Choice</li> </ul> </li> </ul>	<p><b>TCA-49-1-602</b> The commissioner of education shall have the authority to:</p> <ul style="list-style-type: none"> <li>◆ Approve LEA allocation of financial resources to schools within LEA;</li> <li>◆ Approve LEA allocation of personnel resources to schools within LEA;</li> <li>◆ Continue to Implement at least one (1) of the following Corrective Actions: <ul style="list-style-type: none"> <li>◆ Replace LEA personnel relevant to failure to make adequate progress;</li> <li>◆ Mandate a new, research-based curriculum;</li> <li>◆ Appoint outside management or instructional consultants; or</li> <li>◆ Reorganize internal management structure</li> </ul> </li> </ul> <p>The director of each LEA shall have responsibility for:</p> <ul style="list-style-type: none"> <li>◆ Prompt Parent Notification;</li> <li>◆ Provide Remediation; and</li> <li>◆ Revision of TCSP</li> </ul> <p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Parent Notification and Dissemination</li> <li>◆ Technical Assistance</li> <li>◆ SDE shall take at least one of the following corrective actions: <ul style="list-style-type: none"> <li>◆ Deferring programmatic funds or reducing administrative funds</li> <li>◆ New curriculum</li> <li>◆ Replace LEA personnel relevant to failure</li> <li>◆ Remove particular schools from LEA jurisdiction</li> <li>◆ Appoint receiver / trustee</li> <li>◆ Abolish / restructure LEA</li> <li>◆ Public LEA Choice</li> </ul> </li> </ul>	<p><b>TCA-49-1-602</b> The commissioner of education shall have the authority to:</p> <ul style="list-style-type: none"> <li>◆ Assume any or all powers of governance for LEA; provided, however the LEA will continue to be accountable for the match required by the BEP funding formula for students served;</li> <li>◆ Recommend to the state board that the director of the LEA be replaced; and</li> <li>◆ Recommend to the state board that some or all of the local board of education members be replaced</li> </ul> <p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Parent Notification and Dissemination</li> <li>◆ Technical Assistance</li> <li>◆ SDE shall take at least one of the following corrective actions: <ul style="list-style-type: none"> <li>◆ Defer programmatic funds or reducing administrative funds</li> <li>◆ New curriculum</li> <li>◆ Replace LEA personnel relevant to failure</li> <li>◆ Remove particular schools from LEA jurisdiction</li> <li>◆ Appoint receiver / trustee</li> <li>◆ Abolish / restructure LEA</li> <li>◆ Public LEA Choice</li> </ul> </li> </ul>	<p><b>NCLB</b></p> <ul style="list-style-type: none"> <li>◆ Parent Notification and Dissemination</li> <li>◆ SDE shall take at least one of the following corrective actions: <ul style="list-style-type: none"> <li>◆ Defer programmatic funds or reducing administrative funds</li> <li>◆ New curriculum</li> <li>◆ Replace LEA personnel relevant to failure</li> <li>◆ Remove particular schools from LEA jurisdiction</li> <li>◆ Appoint receiver / trustee</li> <li>◆ Abolish / restructure LEA</li> <li>◆ Public LEA Choice</li> </ul> </li> </ul>

**Attachment B**  
**Example of Status Assignments at System Level**

Example 1	READING		MATH		ADDITIONAL INDICATOR		SYSTEM NCLB STATUS
	K-8	HS	K-8	HS	K-8	HS	Overall
Year 1	X	X					Target
Year 2	X	X					School Improvement 1
Year 3			X	X			School Improvement 2
Year 4					X	X	Corrective Action
Year 5						X	Corrective Action - Improving
Year 6	X	X			X	X	Restructuring 1
Year 7	X		X			X	Restructuring 1 - Improving
Year 8			X	X		X	Restructuring 2

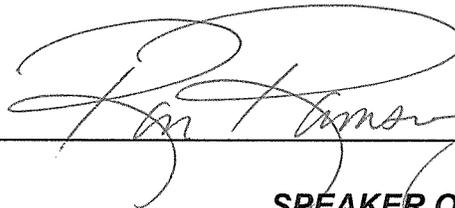
Example 2	READING		MATH		ADDITIONAL INDICATOR		SYSTEM NCLB STATUS
	K-8	HS	K-8	HS	K-8	HS	Overall
Year 1		X	X	X		X	Target
Year 2	X			X	X		Good Standing
Year 3	X	X					Target
Year 4			X	X		X	School Improvement 1
Year 5	X	X			X	X	School Improvement 2
Year 6	X					X	School Improvement 2 - Improving
Year 7						X	Good Standing
Year 8						X	Good Standing

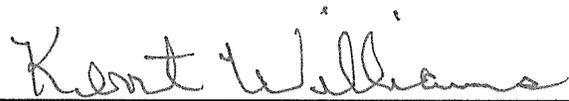
  

Example 3	READING		MATH		ADDITIONAL INDICATOR		SYSTEM NCLB STATUS
	K-8	HS	K-8	HS	K-8	HS	Overall
Year 1		X		X		X	Good Standing
Year 2		X		X		X	Good Standing
Year 3		X		X		X	Good Standing
Year 4		X	X	X		X	Target
Year 5	X	X		X		X	School Improvement 1
Year 6		X		X		X	School Improvement 1 - Improving
Year 7		X		X		X	Good Standing
Year 8		X		X	X	X	Target

SENATE BILL NO. 5

PASSED: January 15, 2010

  
\_\_\_\_\_  
**RON RAMSEY**  
**SPEAKER OF THE SENATE**

  
\_\_\_\_\_  
**KENT WILLIAMS, SPEAKER**  
**HOUSE OF REPRESENTATIVES**

APPROVED this 16<sup>th</sup> day of January 2010

  
\_\_\_\_\_  
**PHIL BREDESEN, GOVERNOR**

# State of Tennessee

## FIRST EXTRAORDINARY SESSION

### SENATE BILL NO. 5

By Kyle, Woodson, Gresham, McNally, Berke, Kelsey, Tate

Substituted for: House Bill No. 7010

By Michael Turner, Lois DeBerry, Harry Brooks, Naifeh, Fitzhugh, Maddox, Williams, Dunn

AN ACT to amend Tennessee Code Annotated, Title 49, Chapters 1, 2, 3 and 5, relative to education.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF TENNESSEE:

SECTION 1. This act shall be known and may be cited as the "Tennessee First to the Top Act of 2010".

SECTION 2. Tennessee Code Annotated, Section 49-1-602(f)(1)(C)(ii), is amended by deleting the existing language and by substituting instead the following language:

Removing the school from the jurisdiction of the LEA and placing the school under the jurisdiction of the "achievement school district" established by the Commissioner of Education pursuant to § 49-1-614.

SECTION 3. Tennessee Code Annotated, Section 49-1-602(f)(1)(C), is further amended by adding the following language as newly designated subdivision (v):

Notwithstanding any provision of the law to the contrary, the commissioner shall have the authority to choose for the school the plan of alternative governance to be developed and implemented.

SECTION 4. Tennessee Code Annotated, Section 49-1-602(g), is amended by deleting the following language:

If the school does not meet the performance standards of the state board by the end of the fourth year of improvement status, the school may be placed in the fifth year of improvement status (Restructuring 2 --- Alternative Governance). During the fifth year of improvement status:

and by substituting instead the following language:

If the school does not meet the performance standards of the state board by the end of the fourth year of improvement status, the school may be placed in the fifth year of improvement status (Restructuring 2 --- Alternative Governance). During the fifth year of improvement status or at any time a Title I school meets the U.S. Department of Education's definition of "persistently lowest achieving schools":

SECTION 5. Tennessee Code Annotated, 49-1-602(g)(2)(E), is amended by deleting the existing language and by substituting instead the following language:

Implementation of the plan for governance, selected from options provided by the commissioner or the specific plan chosen by the commissioner; provided, however, that in the case where the plan for alternative governance is implemented, the LEA shall continue to be accountable for the match required by the funding formula for students served. In addition, the LEA shall continue to provide such support services as identified by the commissioner or designee.

accountable for the match required by the BEP funding formula for students served.

SECTION 7. Tennessee Code Annotated, Section 49-1-606(a), is amended by deleting the second sentence of the subsection in its entirety.

SECTION 8. Tennessee Code Annotated, Section 49-1-606(b), is amended by adding the following sentence at the end of the subsection:

The estimates of specific teacher effects may also be made available to the state board approved teacher preparation programs of individual teachers. The estimates made available to the preparation programs shall not be personally identifiable with a particular teacher.

SECTION 9. Tennessee Code Annotated, Title 49, Chapter 1, Part 6, is amended by adding the following language as a new § 49-1-614:

(a) For the purposes of this title, the "achievement school district" is an organizational unit of the Department of Education, established by the commissioner for the purpose of providing oversight for the operation of the total program for individual schools or LEAs, pursuant to § 49-1-602.

(b) The commissioner shall have the authority to contract with one or more individuals, governmental entities or nonprofit entities to manage the day-to-day operations of any or all schools or LEAs placed in the achievement school district, including, but not limited to, providing direct services to students.

(c) The individual, governmental entity or nonprofit entity contracted with to manage schools or LEAs that have been placed in the achievement school district may apply to the commissioner for a waiver of any state board rule that inhibits or hinders the ability of the school or LEA to achieve the required adequate yearly progress benchmarks. Notwithstanding the provisions of this subsection (c), the commissioner shall not waive rules related to the following:

- (1) Federal and state civil rights;
- (2) Federal, state, and local health and safety;
- (3) Federal and state public records;
- (4) Immunizations;
- (5) Possession of weapons on school grounds;
- (6) Background checks and fingerprinting of personnel;
- (7) Federal and state special education services;
- (8) Student due process;
- (9) Parental rights;
- (10) Federal and state student assessment and accountability;
- (11) Open meetings; and

(12) At least the same equivalent time of instruction as required in regular public schools.

(d)(1) The individual, governmental entity or nonprofit entity contracted with to manage schools that have been placed in the achievement school district shall have the authority to determine whether any teacher who was previously assigned to such school shall have the option of continuing to teach at that school as an employee of the managing entity. Any teacher not given that option shall remain an employee of the LEA, subject to the provisions of § 49-5-511. Moreover, any teacher who accepts

Professional Negotiations Act, compiled in Title 49, Chapter 5, Part 6, shall not apply to teachers who accept the option of continuing to teach at a school placed in the achievement school district.

(e) After a school or LEA that has been placed in the achievement school district achieves the required adequate yearly progress benchmarks for two consecutive years, the commissioner shall develop a transition plan for the purpose of planning the school's or LEA's return to the jurisdiction of the local board of education. Implementation of this plan shall begin after the school or LEA achieves the required adequate yearly progress benchmarks for three consecutive years. The plan must be fully implemented and the transition must be completed after a school or LEA achieves adequate yearly progress benchmarks for five consecutive years.

(f) Notwithstanding the provisions of any law to the contrary, the commissioner shall have the authority to remove any school or LEA from the jurisdiction of the achievement school district at any time.

(g)(1) Absent other funding, the achievement school district shall use state and local funding identified above to operate a school placed in alternative governance and to implement new initiatives and programs as appropriate. Such state and local funding may be used to implement new initiatives and programs to the extent that any increase in recurring expenditures are funded additionally so as not to create a financial burden on the LEA when the school or LEA is removed from the achievement school district.

(2) To the extent that such state funds are not used to support a school or LEA in the achievement school district, they shall be allocated to a state reserve fund to be distributed to an LEA only upon approval of the commissioner.

(3) To the extent that such local funds are not used to support a school or LEA in the achievement school district, the LEA shall allocate such funds to a special BEP reserve account until the school or LEA is placed back under the jurisdiction of the LEA. It is the legislative intent that such funds be used only for non-recurring purposes.

(h) Any individuals, governmental entities, or nonprofit entities contracting with the commissioner to manage the operation of any school under this section shall provide timely information to the LEA and director of schools regarding its operation of such schools, including, but not limited to, matters relating to employment of personnel at the school as provided for in subsection (d). The LEA may continue to support the educational improvement of the school under the direction and guidance of the commissioner and in accordance with any contracts entered into in accordance with this section. In addition, any individuals, governmental entities, or nonprofit entities contracting with the commissioner may voluntarily work with the LEA in providing to the schools professional development or technical assistance, instructional and administrative support, and facilitating any other support that may be beneficial to academic progress of the school.

(i) Any contracts to manage schools or LEAs that have been placed in the achievement school district shall require expenditure reports for funds received and expended pursuant to such contracts. Such reports shall be provided to the Department of Education and comptroller of the treasury for review.

(j) No state funds, other than funds held within the special reserve account pursuant to subsection (g)(2), shall be expended on schools or LEAs placed in the achievement school district unless specifically appropriated in a General Appropriations Act.

SECTION 10. Tennessee Code Annotated, Section 49-1-302(d)(1) and (2), are amended by deleting those subdivisions in their entirety and by substituting instead the following:

(d)(1) There is hereby created the "teacher evaluation advisory committee". The committee shall consist of fifteen (15) members. The Commissioner of Education, the executive director of the State Board of Education and the chairpersons of the Education Committees of the Senate and the House of Representatives shall be

least one (1) member of the committee shall be a parent of a currently enrolled public school student. The membership of the committee shall appropriately reflect the racial and geographic diversity of this state. The Commissioner of Education shall serve as the chairperson of the committee. All appointments to the teacher evaluation advisory committee shall be made within thirty (30) days of the effective date of this act.

(2) The committee shall develop and recommend to the board, guidelines and criteria for the annual evaluation of all teachers and principals employed by LEAs, including a local-level evaluation grievance procedure. This grievance procedure shall provide a means for evaluated teachers and principals to challenge only the accuracy of the data used in the evaluation and the adherence to the evaluation policies adopted pursuant to this subdivision. Following the development of these guidelines and criteria, the board shall adopt guidelines and criteria. The evaluations shall be a factor in employment decisions, including, but not necessarily limited to, promotion, retention, termination, compensation and the attainment of tenure status.

(A) Fifty percent (50%) of the evaluation criteria developed pursuant to this subdivision (2) shall be comprised of student achievement data.

(i) Thirty-five percent (35%) of the evaluation criteria shall be student achievement data based on student growth data as represented by the TVAAS, developed pursuant to Tennessee Code Annotated, Title 49, Chapter 1, Part 6, or some other comparable measure of student growth, if no such TVAAS data is available.

(ii) Fifteen percent (15%) shall be based on other measures of student achievement selected from a list of such measures developed by the teacher evaluation advisory committee and adopted by the board. For each evaluation, the teacher or principal being evaluated shall mutually agree with the person or persons responsible for conducting the evaluation on which such measures are employed. If the teacher or principal being evaluated does not agree with the measures used, the person or persons responsible for conducting the evaluation shall choose the evaluation measures.

(iii) Notwithstanding subdivisions (i) and (ii) above, if a particular teacher's or principal's student growth data, as described in subdivision (i) above, reflects attainment of a specific achievement level, to be recommended by the teacher evaluation advisory committee and adopted by the board, then such student growth data may, at the choice of the individual being evaluated, comprise fifty percent (50%) of their evaluation.

(B) Other mandatory criteria for the evaluations shall include, but not necessarily be limited to, the following:

(i) Review of prior evaluations; and

(ii) Personal conferences to include discussion of strengths, weaknesses and remediation; and

(iii) Relative to teachers only, classroom or position observation followed by written assessment; and

(iv) Relative to principals only, additional criteria pursuant to § 49-2-303(a)(1).

(3) The policies adopted pursuant to subdivision (2) shall be effective no later than July 1, 2011, in order to be implemented prior to the 2011-2012 academic year. Prior to the implementation of these policies, the existing guidelines and criteria for the evaluation of certificated persons employed by LEAs shall continue to be utilized.

(4) The evaluation procedure created by this subsection shall not apply to

SECTION 11. Tennessee Code Annotated, Section 49-2-303(a)(1), is amended by deleting the subdivision in its entirety and by substituting instead the following language:

Each director of schools shall employ principals for the public schools. The employment contract with each principal shall be in writing, shall not exceed the contract term of the current director of schools, and may be renewed. The contract shall specify duties other than those prescribed by statute and shall contain performance standards including the requirement that the principal's annual evaluation be based on student achievement data, with a significant portion, as defined by the guidelines and criteria adopted by the board in accordance with § 49-1-302(d)(2), being student growth data as reflected in teacher effect data and TVAAS data, as such data is developed pursuant to Tennessee Code Annotated, Title 49, Chapter 1, Part 6. Other standards that may be considered in the evaluation shall include, but not be limited to, other benchmarks for student proficiency, graduation rates, ACT scores where applicable and student attendance. The contract shall provide for consequences when the standards are not met. The performance contract may provide for bonuses beyond base salary, if performance standards are met or exceeded. Reasons for the nonrenewal of a contract may include, but are not limited to, inadequate performance as determined by the evaluations. A principal who has tenure as a teacher shall retain all rights of such status, expressly including those specified in § 49-5-510.

SECTION 12. Tennessee Code Annotated, Section 49-3-306(a)(1), is amended by adding the following language at the end of the subdivision:

In the alternative, an LEA may submit to the commissioner its own proposed salary schedule, subject to collective bargaining where applicable. Implementation of such a salary schedule shall be subject to approval by the commissioner and the state board. In no case shall a salary schedule adopted pursuant to this subdivision (1) result in the reduction of the salary of a teacher employed by the LEA at the time of the adoption of the salary schedule. Any additional expenditure incurred as a result of any such salary schedule shall be subject to appropriation by the governing body empowered to appropriate the funds.

SECTION 13. Tennessee Code Annotated, Section 49-5-512, is amended by deleting the existing language in its entirety and by substituting instead the following language:

(a) A tenured teacher, who receives notification of charges pursuant to § 49-5-511, may, within thirty (30) days after receipt of the notice, demand a full and complete hearing on the charges before an impartial hearing officer selected by the board, as follows:

(1) The teacher shall give written notice to the director of schools of the teacher's request for a hearing;

(2) The director of schools shall, within five (5) days after receipt of the request, name an impartial hearing officer who shall be responsible for notifying the parties of the hearing officer's assignment. The hearing officer shall direct the parties or the attorneys for the parties, or both, to appear before the hearing officer for simplification of issues and the scheduling of the hearing, which in no event shall be set later than thirty (30) days following receipt of notice demanding a hearing. In the discretion of the hearing officer, all or part of any prehearing conference may be conducted by telephone if each participant has an opportunity to participate, be heard, and to address proof and evidentiary concerns. The hearing officer is empowered to issue appropriate orders and to regulate the conduct of the proceedings;

(3) For the purposes of this part, "impartial" means that the selected hearing officer shall have no history of employment with the board or director of schools, no relationship with any board member and no relationship with the teacher or representatives of the teacher;

(4) All parties shall have the right to be represented by counsel, the opportunity to call and subpoena witnesses, the opportunity to examine all witnesses, the right to require that all testimony be given under oath and the right to have evidence deemed relevant by the submitting party included in the record of the

(6) The impartial hearing officer shall administer oaths to witnesses, who testify under oath;

(7) A record of the hearing, either by transcript, recording, or as is otherwise agreed by the parties shall be prepared if the decision of the hearing officer is appealed, and all decisions of the hearing officer shall be reduced to writing and included in the record, together with all evidence otherwise submitted;

(8) On request of either party to the hearing, witnesses may be barred from the hearing except as they are called to testify. The hearing may be private at the request of the teacher or in the discretion of the hearing officer; and

(9) At appropriate stages of the hearing, the hearing officer may give the parties the full opportunity to file briefs, proposed findings of fact and conclusions of law, and proposed initial or final orders. The hearing officer shall within ten (10) days of closing the hearing, decide what disposition to make of the case and shall immediately thereafter give the board and the teacher written findings of fact, conclusions of law and a concise and explicit statement of the outcome of the decision.

(b) The director of schools or other school officials shall not be held liable, personally or officially, when performing their duties in prosecuting charges against any teacher or teachers under this part.

(c)(1) If the affected teacher desires to appeal from a decision rendered in whole or in part in favor of the school system, the teacher shall first exhaust the administrative remedy of appealing the decision to the board of education within ten (10) working days of the hearing officer's delivery of the written findings of fact, conclusions and decision to the affected employee.

(2) Upon written notice of appeal, the director of schools shall prepare a copy of the proceedings, transcript, documentary and other evidence presented, and transmit the copy to the board within twenty (20) working days of receipt of notice of appeal.

(3) The board shall hear the appeal on the record and no new evidence shall be introduced. The affected employee may appear in person or by counsel and argue why the decision should be modified or reversed. The board may sustain the decision, send the record back if additional evidence is necessary, revise the penalty or reverse the decision. Before any findings and decision are sustained or punishment inflicted, a majority of the membership of the board shall concur in sustaining the charges and decision. The board shall render its decision on the appeal within ten (10) working days after the conclusion of the hearing.

(4) Any party dissatisfied with the decision rendered by the board shall have the right to appeal to the chancery court in the county where the school system is located within twenty (20) working days after receipt of the dated notice of the decision of the board. It shall be the duty of the board to cause the entire record and other evidence in the case to be transmitted to the court. The review of the court shall be de novo on the record of the hearing held by the hearing officer and reviewed by the board.

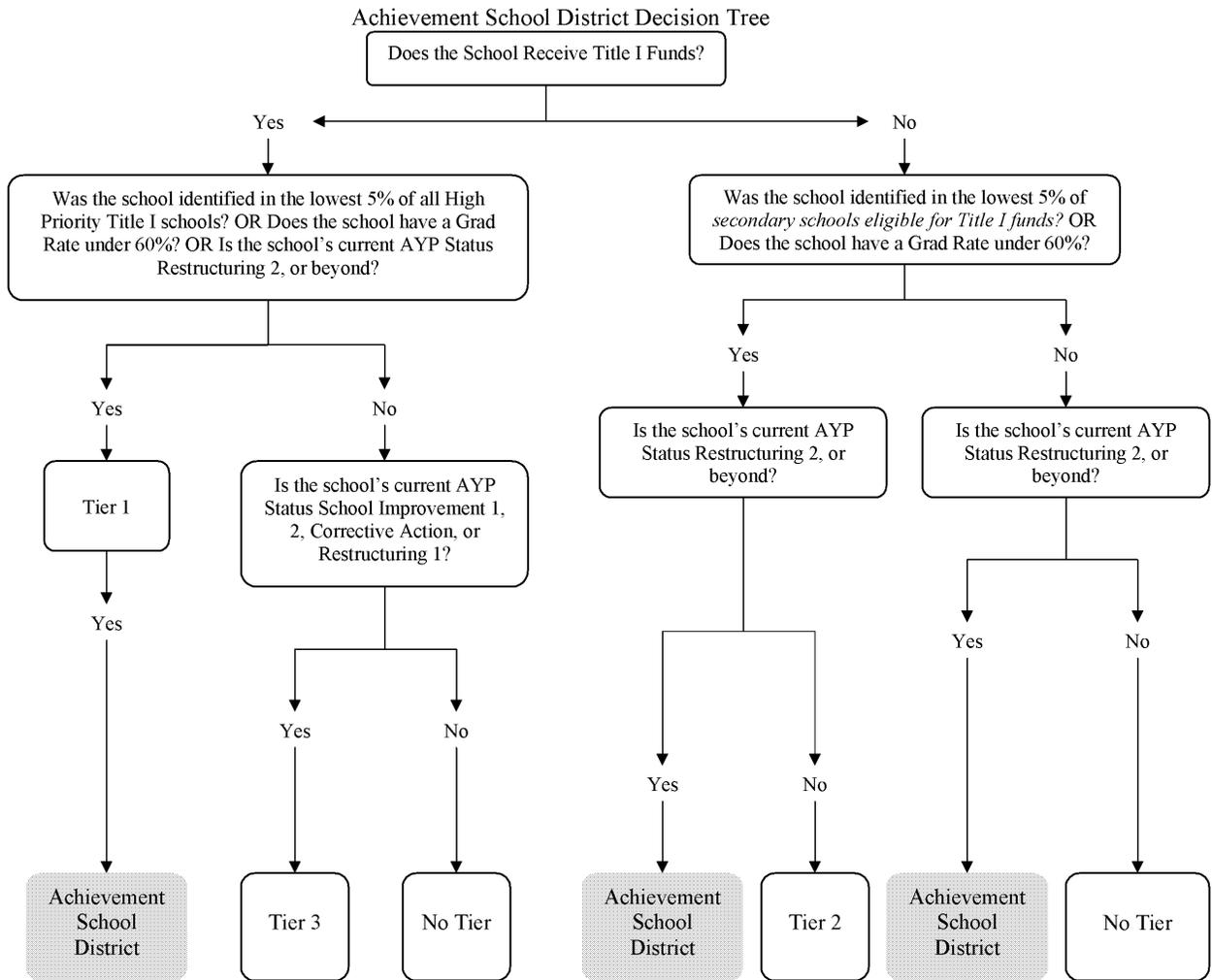
(5) The director of schools shall also have the right to appeal any adverse ruling by the hearing officer to the board under the same conditions as set out in this subsection (c).

SECTION 14. The Teacher Professional Development Fund is established, into which only federal monies shall be deposited, for the purposes of improved teaching, pedagogical skills, and classroom instruction.

SECTION 15. The Department of Education shall annually report to the general assembly the amount of Race to the Top funds awarded to each local education agency and achievement

SECTION 17. This act shall take effect upon becoming a law, the public welfare requiring it.

## Tennessee Race to the Top – Appendix E-2-1



## Tennessee Race to the Top – Appendix E-2-2

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### **Calculating Numerical Rank for Persistently Lowest-Achieving Schools**

The State of Tennessee has the following process for identifying the persistently lowest-achieving schools, referred to as Tier 1 and Tier 2 schools.

Tier 1 schools are the persistently lowest-achieving five percent of Title I high priority schools which are based upon the highest numerical final rank and those Title I high schools with a graduation rate less than 60% for any two of the last three years. Tier 2 schools are the persistently lowest-achieving five percent of non-Title I high schools (that are Title I eligible but not served) with the highest numerical final rank and non-Title I high schools with a graduation rate less than 60% for any two of the last three years.

The lowest-achieving five percent is calculated by the numerical rank within each pool of schools (Title I high priority schools and non-Title I high schools, that are Title I eligible but not served). The numerical rank is determined based upon the following series of calculations:

- 1) The current year math score for all students is ranked;
- 2) The current year reading/language arts score for all students is ranked;
- 3) The math and reading/language arts ranks are summed for current year rank;
- 4) Two prior years are ranked using the same method;
- 5) Two prior year ranks are averaged for prior years rank;
- 6) Current year rank and prior years rank are added together to create the combined rank;
- 7) If a school has failed adequate yearly progress (AYP) 6 years or more, the combined rank was multiplied times 6 (lack of progress factor) for the final rank.

## Tennessee Race to the Top – Appendix E-2-3

Because Tennessee has implemented dramatically higher academic and achievement standards and assessments, the exact method of identifying persistently low-achieving schools will change as detailed in Table 1. What will remain the same is the use of a clear, data-based process of determining the schools falling into the three tiers noted in the narrative. Tennessee has asked for amendments to its Accountability Workbook and waivers of Title I statute and regulations allowing more time in reporting assessment results and making AYP determinations based on data from school year 2009-2010.

Table 1 outlines the goals, activities, timelines, and responsible parties for the identification of persistently lowest-achieving schools.

**Table 1: Identification of Persistently Lowest-Achieving Schools**

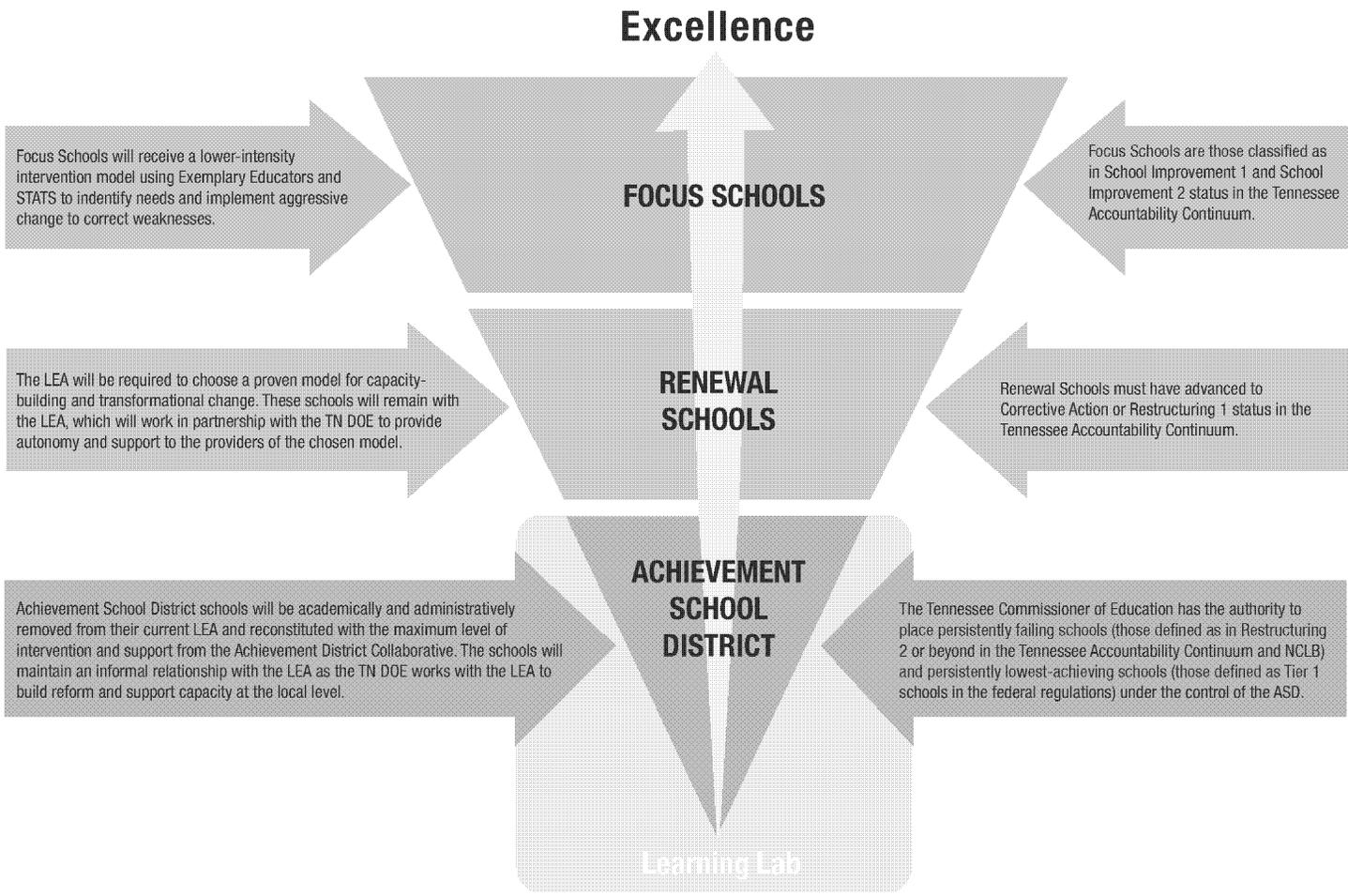
<b>Goal: To annually identify the persistently lowest-achieving schools (Tier 1 and 2) at least two weeks before the start of the school year.</b>		
<b>For all these activities, the responsible party will be the Department of Education.</b>		
Current Year 2009-2010	Year 1 of Application 2010-2011	Years 2, 3, 4 of Application 2011-2012 and beyond
Identifying persistently lowest-achieving schools by criteria in Section E(2)(1) (January)	Determine cut scores for new standards and assessments (July)	Determination of AYP status for state, district, and schools (July)
Receive input from key stakeholder groups, such as Committee of Practitioners, on definition and process (January)	Approval by State Board of Education of new cut scores for achievement levels (July)	Identification of Tier 1, 2, and 3 schools (July)
Approval by State Board of definition and process (January)	Application of new cut scores to determine percent of students advanced, proficient, basic, and below basic for all grade levels and content areas at state, district, and school levels (August)	
Submission to USDE in Title I School	Determination of new AYP starting points,	

**Goal: To annually identify the persistently lowest-achieving schools (Tier 1 and 2) at least two weeks before the start of the school year.**

**For all these activities, the responsible party will be the Department of Education.**

<p>Improvement Grant definition and process (February)</p>	<p>intermediate goals, and annual measurable objectives (September)</p> <p>Approval by U.S. Department of Education (September)</p> <p>Approval by State Board (September)</p> <p>Application of new AYP benchmarks to determine NCLB accountability status for state, districts, and schools (October-November)</p> <p>Identification of Tier 1, 2, and 3 schools (November)</p>	
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# Tennessee Pyramid of Intervention



All schools in Tennessee will receive state support to put them on a trajectory toward excellence. Supports include: Common Core Standards and balance assessment systems, access to the enhanced longitudinal data system via the data dashboard, training on using data for instructional decision making, STEM initiative opportunities, changes in teacher and principal preparation and individualized support for improvement, the multiple measure teacher and principal evaluation system for coaching and decision making, and ongoing research and evaluation of what's working in Tennessee.

## Tennessee Race to the Top – Appendix E-2-5

### LESSONS LEARNED FROM ACCOUNTABILITY IN TENNESSEE

Tennessee holds every public school and LEA in the state accountable, including charter schools.<sup>1</sup> All Title I and non-Title I schools are held to the same AYP measures, and the state received approval from the U.S. Department of Education to use its value-added growth model as one factor in deciding whether schools make AYP.

A school becomes a “High Priority” school after two consecutive years of not making AYP according to the same benchmark with any subgroup. From that point, as described in the chart in Appendix E-1-2, a school receives increasing intervention or support if student achievement does not increase, until it comes off the list. Table 1 shows the number of “High Priority” schools identified since 2001, including the number of schools in which student achievement increased so that it was able to achieve good standing. Since 2001, interventions have resulted in an average of 53% of High Priority achieving good standing after being placed on the list.

**Table 1: Tennessee High Priority Schools Identified Each Year from 2001 through 2009**

School Year	Number of High Priority Schools Identified	Number of High Priority Schools Achieving AYP	Number of High Priority Schools Improved to Good Standing	Other Outcomes (e.g., Closed)
2001-2002	98	36 (37%)	n/a	0
2002-2003	100	69 (69%)	37	1
2003-2004	62	23 (37%)	13	1
2004-2005	165	126 (76%)	8	1
2005-2006	159	105 (66%)	86	4
2006-2007	95	47 (49%)	11	2
2007-2008	139	91 (65%)	28	4
2008-2009	134	80 (60%)	43	4
2009-2010	144	TBD	TBD	4*

\*As of January 11, 2010

Tennessee has chosen a less-directive route in school accountability in order to build capacity at the district level and help schools improve at a steady pace so that student achievement continues to rise even if supports are removed. The state has deployed the following resources for High Priority schools. (Please see Appendix E-1-2 for a fuller explanation):

- **Office of Achievement Gap Elimination:** The Office of Achievement Gap Elimination began service in 2008. Five AGE consultants work with High Priority schools in School Improvement 1 status with demonstrated achievement gaps among subgroups. Of the 28 schools served in 2008-09, 16 made AYP – which, if repeated in 2009-10, means they will come off the High Priority schools list and be in good standing.
- **Exemplary Educators (EEs):** Launched in 1998 and administered by the non-profit Edvantia through a state contract, Exemplary Educators work with High Priority Schools. Exemplary Educators are chosen from a pool of recently retired educators whose experience and expertise can benefit the schools and districts they are assigned to assist. After a screening process, they focus on improving strategic planning, teaching, and learning at either the school or district level. An EE’s role may include modeling innovative teaching strategies, serving as mentor to school and district staff, helping staff analyze student performance data, and connecting with professional development providers. There are currently 92 EEs in Tennessee. In 2007, the program won the “Top 50 Innovations in American Government Award” from Harvard University’s Kennedy School of Government.
- **System Targeted Assistance Team (STAT):** Starting in 2006, 11 consultants (usually retired district superintendents or administrators) have worked with High Priority districts to align resources, analyze data, work on state-required school/district improvement plans, and ensure that other collaborative improvement efforts such as those described above were targeted and used efficiently. Among the goals is to build district capacity for improvement. There is evidence of success: Of the five low-achieving districts that had STAT teams, all five either moved off the High Priority LEA list or made AYP in 2008-09.

### **Performance Measures for E(2)**

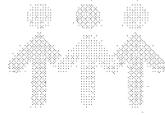
Approach Used	# of Schools Since SY2004-05	Results and Lessons Learned
<b>TURNAROUND</b>		
Replaced principals	24 (replaced principals)	<p>It is critical to have the highly qualified and highly effective instructional leaders in the high-needs schools. Tennessee did not arbitrarily remove and replace principals. Districts were required to consult with the DOE and submit three (3) names of principals for approval.</p> <p>It has been effective in that 67% of the schools came off of the High Priority list. To increase effectiveness in the number of schools, it may be necessary to consider selecting additional replacement staff as appropriate, and address other variables that impact student achievement in concert with addressing teaching and learning factors.</p>
Replaced teachers	1 (had teachers reapply) 17 (replaced teachers)	It is critical to have highly qualified and highly effective personnel in the high-needs schools. Tennessee did not
Locally adopted competencies to measure effectiveness of staff		arbitrarily remove a percentage of staff but required systems to investigate and remove ineffective staff. It has been
Selected new staff	3 (behavior specialists) 9 (family specialists) 5 (graduation coach) 5 (instructional facilitators) 2 (police officers) 8 (asst. principals) 13 (math/lit. coaches) 2 (other specialists.) 6 (additional teachers/counselors/staff)	<p>effective in that the changes in staff were justified by the required investigation and were data-driven and need-specific. In the cases of replacement of principal and the replacement of teachers, over 50% of the schools came off of the High Priority list.</p> <p>To increase effectiveness additional schools, it may be necessary to be more data-driven when selecting replacement staff.</p> <p>Having equitable and sufficient resources are essential. Critical capacity was realized by adding appropriate staff positions based again on data.</p>

Implemented financial incentives	1 (differentiated pay)	See note under “Transformation” model.
Provided staff with ongoing, high quality, job-embedded professional development aligned with the school’s instructional program	9	This is a critical aspect of student achievement and was successful in that 78% of the nine schools came off the High Priority list. This practice should be more formalized into professional learning communities within each school and should be required and supported in every High Priority school. Targeted technical assistance by the Exemplary Educators (EE), Achievement Gap Elimination Consultants (AGE), and System Targeted Assistants Team (STAT) was critical to maintaining a focused alignment on data-driven practices in schools and districts. Also critical to this success has been the requirement for local districts to appoint a staff person to be responsible for the oversight and support of their High Priority Schools and to report to the DOE quarterly regarding the progress these schools are making.
Used data to identify appropriate instructional programs and promote the continuous use of student data	1 (formative assessments)	Tennessee must maintain a tight focus and alignment between the use of an approved set of curriculum standards that are rigorous and are aligned with instruction and assessments. Data (academic, non-academic, formative, and summative) are used to inform all decisions regarding school improvement processes and changes, but implementation must be monitored. This process must become more user-friendly and less cumbersome to guide teaching and learning as it is designed to do, and be focused on outcomes. The one school in this category remained on the High Priority list.
Establish schedules and implement strategies that provide increased learning time for school instructional needs.	2 (9 <sup>th</sup> grade academy/transition plan) 1 (AP classes) 4 (changed grade configurations)	These are very effective strategies because the decisions are data-driven and made on a case-by-case situation. 80% of these schools left the High Priority list. This allows for each

	2 (student-teacher ratio) 1 (Saturday academy)	situation to be addressed based on the context of the needs and the environment.
<b>CLOSURE</b>		
	4	School closures were local district-level decisions, although the Commissioner retains authority to make this move.
<b>TRANSFORMATION</b>		
Many elements of the RTTT Transformation Model are in the Turnaround Model above, and we account for them in that section of this chart. Below are elements of the Transformation Model with which Tennessee has experience.		
Providing additional compensation to attract and retain staff	15 (hiring incentives/bonus) 17 (incentive pay for hard-to-staff subjects)	While effective because over 50% of schools with these came off the High Priority list, other factors may need to be addressed in concert with the incentives to increase effectiveness.
Take into account data on student growth as a significant factor in evaluations	9 (principal performance contracts)	Principal performance contracts have not been as effective (33% of High Priority schools moved to good standing), perhaps because they are new as of 2007; or because they are not standardized across the state, but are designed by the local districts based on guidelines from the state.
Implementing approaches to improve school climate and discipline	1 (truancy office)	1 school moved off the list. A focused attention and effort on attendance helped the school meet its AYP goals.

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<sup>1</sup> K-2 schools, which do not participate in the state standardized assessment system, are held accountable based on the performance of their receiving schools.



Charter School Growth Fund  
Helping public education thrive.

January 12, 2010

Tennessee Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

The Charter School Growth Fund (CSGF) is pleased to express its support for Tennessee's participation in the Race to the Top application and the reform plan the Department of Education has developed to dramatically change education in the state so it works for every child in Tennessee. We are impressed by Tennessee's bold vision, recent regulatory changes, and conditions for success, and believe that the state is an excellent candidate for the Race to the Top.

Since its founding in 2005, CSGF has invested over \$75 million in the development and expansion of outstanding charter school networks in underserved communities across the nation. Our work with your leaders has left us deeply impressed with Tennessee's commitment to serious reform and we believe that Tennessee is well-positioned to chart a bold course in the future.

Indeed, Tennessee's Race to the Top Application is built on visionary and ambitious reforms. The state's plan, including the creation of the Achievement School District, will provide many of the conditions that we believe are crucial for providing high-quality educational options, including direct governance authority and the ability to authorize new high-quality charter schools, providing public facilities for all public school students including charter school students, and being willing to contract out the management of schools under completely different conditions to high-performing third parties who are held accountable for student results.

With its Race to the Top plan, we believe Tennessee can fundamentally transform the expectations of what is possible for the state and its most underserved students, as well as build a base of capacity for wider, permanent changes across the state. We are supportive of the boldness and vision outlined in Tennessee's plan.

Sincerely,

A handwritten signature in dark ink, appearing to read "Kevin Hall". The signature is written in a cursive, flowing style.

Kevin Hall  
CEO



January 13, 2009

Tennessee Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243-0001

Dear Governor Bredesen:

The Knowledge is Power Program (KIPP) is pleased to express its support for Tennessee's participation in the Race to the Top application and the reform plan the Tennessee Department of Education has developed in collaboration with the state's education community and groups in and outside of Tennessee.

In recent years, KIPP has worked closely with educators and communities in Tennessee to open two of the highest performing open-enrollment public schools. We have benefitted from the progressive thinking and the belief in putting students first that stems from education leaders in Tennessee. And we firmly believe that without the state's current leadership and vision, our students would not be on the transformative path that they find themselves on today.

In its Race to the Top application, Tennessee has articulated an aggressive plan to implement a bold reform agenda, pursuing and expanding upon its current innovative strategies to improve public education so that more of the state's children achieve at high levels, develop competitive skills, and become productive members of society.

We wholeheartedly support the strategies to meet these goals that Tennessee has outlined in its application, and are excited about the potential opportunity to expand KIPP's work in Nashville and Memphis. We hope that others will join us in embracing this opportunity to participate in bold reforms to dramatically improve the education system in Tennessee.

Sincerely,

Randy Dowell  
School Leader, KIPP Academy Nashville

Jamal McCall  
Executive Director, KIPP Memphis

# New Leaders *for* New Schools

January 15, 2010

Tennessee Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243- 0001

Dear Governor Bredesen:

New Leaders for New Schools is extending its support for Tennessee's Race to the Top application and the reform plan that the state has designed to drive student achievement throughout the state.

New Leaders for New Schools provides intensive instruction, hands-on experience, and ongoing support to create a pathway for current and former educators to become outstanding principals who achieve dramatic results in urban public schools. As you know, New Leaders for New Schools has been working in Memphis, Tennessee since 2004. In partnership with Memphis City Schools, we have recruited 64 candidates, in 6 cohorts of New Leaders, for the principalship and the assistant principalship.

We believe that Race to the Top is Tennessee's opportunity to be on our nation's leading edge in defining principal effectiveness and aligning state and district policies, practices and programs to this definition in order to drive principal and teacher effectiveness, and student achievement throughout the state.

Sincerely,



Jean Desravines  
Chief Officer for Cities and Policy

National & New York  
Program Office  
30 West 26th Street  
2nd Floor  
New York, NY 10010  
Tel: 646-792-1070  
Fax: 646-792-1071  
www.nlms.org

One day, all children in this nation will have the opportunity to attain an excellent education.

**TEACHFORAMERICA**

January 12<sup>th</sup>, 2010

Tennessee Governor Phil Bredesen  
Governor's Office  
Tennessee State Capitol  
Nashville, TN 37243

Dear Governor Bredesen:

Teach for America is pleased to express its support for Tennessee's Race to the Top application and the reform plan developed by the Tennessee Department of Education, local and state-wide stakeholders, and national partnership organizations.

Teach For America is deeply invested in further supporting the state's human capital strategy. At present, we have 150 corps members working in Nashville and Memphis, and are excited about the opportunity to increase our impact. We see Tennessee's Race to the Top application as a unique opportunity to build on, and expand, the state's commitment to recruit, select, train, and support exceptional new teachers while providing intensive efforts to help turnaround failing schools.

By seizing the opportunity provided by Race to the Top we can help change the life paths of students in our state. We know what is possible when our kids have the right leadership in their classrooms and in their schools; we further know what our kids are capable of when challenged to meet rigorous expectations – they achieve at the highest level.

Teach For America Tennessee wholeheartedly supports the goals and strategies outlined in Tennessee's application and we remain committed to dramatically improving education in our state. We hope that others will join us by embracing the bold reforms proposed by the state so that we can work together with one purpose-to ensure that all students in Tennessee have the opportunity to attain an excellent education.

Sincerely,



Bradley Leon  
Executive Director  
Teach For America Tennessee



AN AMERICORPS PROGRAM

One Commerce Square, Suite 1190 • Memphis, TN 38103 • P 901.527.7510 F 901.521.8323 • [www.teachforamerica.org](http://www.teachforamerica.org)

January 16, 2010

To Whom It May Concern,

The New Teacher Project (TNTP) is a strong supporter of ongoing education reforms in the State of Tennessee. If the state is awarded a Race to the Top grant, TNTP plans to invest substantial capacity in assisting the State Education Agency and participating Local Education Agencies in their execution of well-conceived human capital initiatives, including those detailed below.

**Quality teacher pipeline.** TNTP will expand its existing alternate route programs to recruit, select, train, place and certify up to 150 Teaching Fellows per year, clustered in urban districts with appropriate levels of need, autonomy and commitment to the partnership. TNTP may also provide guidance and support for developing new teacher pipelines for underserved rural communities in Tennessee.

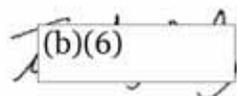
**Rigorous Certification.** TNTP's acclaimed Practitioner Teacher Program (PTP) will certify new Teaching Fellows through intensive coursework that is tied to student outcomes. The PTP will provide new teachers with an innovative alternative to traditional university-based certification options, which are often disconnected from the needs of career changers and from the realities of high-need schools. The PTP revolves around TNTP's *Teaching for Results (TfR)* content seminars, which are designed specifically for new teachers making the transition from other backgrounds and working to raise achievement levels in high-need schools.

**Human Capital Policy Analysis.** TNTP will conduct an in-depth analysis of the policies and practices that stand in the way of prioritizing teacher effectiveness in the participating districts. This analysis may incorporate an examination of collectively bargained contracts, Human Resources records, pipeline analyses, and surveys of teachers and principals, depending on the most critical interest. The report will illuminate barriers and point the way toward reforms.

**Performance Management Pilots.** On the heels of the policy changes being driven by RTT to begin to differentiate teacher effectiveness, TNTP will work with district leaders to implement teacher performance management tools in a fair, consistent and rigorous way. We will work with up to 20 school leaders to help them set expectations with their teaching staff, evaluate and differentiate teacher performance, and help provide the feedback and support that teachers need to improve.

All of the above initiatives share the common goal of improving teacher effectiveness for Tennessee's highest-need students. TNTP looks forward to working with the state to implement these projects and provide all students with an excellent education.

Regards,



(b)(6)

Tim Daly  
President, The New Teacher Project

## Tennessee Race to the Top – Appendix E-2-7

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### TURNING AROUND LOW-ACHIEVING SCHOOLS

Tables 1 and 2 shows the goals, timelines, and benchmarks for our turnaround work for the ASD, the Renewal Schools, and Focus Schools:

**Table 1: Strategies for Supporting the Achievement School District**

**Goal: To establish an effective state Achievement School District that will turn around the state’s persistently lowest-achieving and persistently failing schools, transition them effectively back to their LEAs with sustainable strategies for continued success, and identify best practices to support LEAs in turning around and sustaining the improvements in such schools in the future.**

**Measurements:**

- The number and percent of schools in ASD that make AYP
- The AYP status of the ASD at the LEA level
- The number and percent of schools that are not identified as Tier 1
- The percent of ASD teachers identified as highly effective, effective, and ineffective
- The percent of students in ASD who graduate on time or graduate through the extended graduation
- The percent of students in ASD who meet ACT benchmarks
- The percent of graduates who enroll in post-secondary institutions
- The value-added scores for the ASD in reading, language arts, and science
- The number and percent of ASD schools identified to transition back to home LEAs
- The development and implementation of transitional strategies for successful ASD schools
- The identification and dissemination of “best practices” to all LEAs
- The identification and removal of barriers, such as state laws, policies, or negotiated contracts, that prevent persistently low-achieving schools achieve success in their home LEAs
- The number and percent of ASD schools and ASD aggregate that meet academic goals and targets of the grant as outlined in A(1)(iii)

**The responsible party will be the Superintendent of the Achievement School District**

	Year 1 2010-11	Year 2 2011-2012	Year 3 2012-2013	Year 4 2013-2014
<b><i>Achievement School District (Persistently lowest-achieving schools and Restructuring 2 and beyond)</i></b>	Notify LEAs, schools, students, parents, and communities of 13 schools to the ASD	Orientation and professional development for new school staff in Summer 2011	Orientation and professional development for new school staff in Summer 2012	Begin development of transition plan with LEAs for schools identified for possible transition
	Identify / select nonprofit partners for human capital and new school creation	School begins and implement chosen model	School continues to implement chosen model	Orientation and professional development for new school staff in Summer 2012
	13 identified schools remain in their home districts as they plan with state consultants and partners to transition to ASD in school year 2011-12	ASD and partners maintain regular two-communication with key external and internal constituencies	ASD and partners maintain regular two-communication with key external and internal constituencies	School continues to implement chosen model
	Establish and implement new ASD state office	On-going professional development	On-going professional development	ASD and partners maintain regular two-communication with key external and internal constituencies
	Recruit and select leader for ASD	ASD staff and partners regularly meet to evaluate progress on implementation, revise when necessary, and evaluate student outcomes	ASD staff and partners regularly meet to evaluate progress on implementation, revise when necessary, and evaluate student outcomes	On-going professional development
	Execute contract with external partners	ASD staff monitors scope of contract for partners	ASD staff and partners regularly meet to evaluate progress on implementation, revise when necessary, and evaluate student outcomes	ASD and partners maintain regular two-communication with key external and internal constituencies
	ASD representatives work with selected schools, communities and partners to choose one of four intervention models to	ASD staff analyzes performance measures and makes necessary adjustments for subsequent	ASD staff monitors scope of contract for partners	On-going professional development ASD staff and partners regularly meet to evaluate progress on implementation, revise when necessary, and evaluate student

	<p>implement</p> <p>ASD applies for Title I school improvement funds for 13 schools</p> <p>ASD and 13 schools develop approved school improvement plans</p> <p>ASD state office establishes procedures for logistical issues, such as transportation, maintenance, etc.</p> <p>ASD and partners recruit and hire employees for 13 schools</p>	year	<p>ASD staff analyzes performance measures and make necessary adjustments for subsequent year</p> <p>ASD staff evaluates individual school progress to determine which schools will begin transition plans for returning to home LEA at end of school year 2015-16</p>	<p>outcomes</p> <p>ASD staff monitors scope of contract for partners</p> <p>ASD staff analyzes performance measures and make necessary adjustments for subsequent year</p> <p>ASD staff evaluates individual school progress to determine which schools will begin transition plans for returning to home LEA at end of school year 2015-16</p>
<b><i>Transitional Strategies</i></b>	<p>Begin research and discussion of transition strategies</p> <p>Begin research and discussion of indicators of success for schools to indicate readiness for transition (measurements indicated in the measurement statements)</p> <p>Begin research and</p>	<p>Continue research and discussion of transition strategies</p> <p>Continue research and discussion of indicators of success for schools to indicate readiness for transition, including measurements</p> <p>Continue research and discussion of indicators of</p>	<p>Continue research and discussion of transition strategies</p> <p>Finalize indicators of success for schools to indicate readiness for transition, including measurements</p> <p>Finalize indicators of district readiness and capacity to assume</p>	<p>Continue research and discussion of transition strategies</p> <p>Monitor the continued progress of schools identified for transition</p> <p>Apply indicators to determine first group of schools eligible for transition</p>

	discussion of indicators of district readiness and capacity to assume responsibilities for successful schools to transition	district readiness and capacity to assume responsibilities for successful schools to transition	responsibilities for successful schools to transition  Apply indicators to determine first group of schools eligible for transition	
<i>Best Practices</i>	Execute contract with state evaluation team (TN CRED) to identify best practices (please see Section C)	Team begins evaluation and identification of potential best practices	Team continues to evaluate and identify potential best practices  Team identifies promising practices  State disseminates promising practices  State identifies any barriers in laws or policies that prevent implementation of best practices and works to remove them	Team continues to evaluate and identify potential best practices  Team identifies promising practices  State disseminates promising practices  State identifies any barriers in laws or policies that prevent implementation of best practices and works to remove them

**Table 2: Strategies for Supporting Renewal Schools and Focus Schools**

<b>Goal: To establish an effective support model for LEAs to turn around and sustain progress of schools in the Renewal and Focus categories</b>
<b>Measurements:</b> <ul style="list-style-type: none"> <li>• The number and percent of schools in Renewal/Focus Schools that make AYP</li> <li>• The AYP status of the Renewal Schools at the LEA level</li> <li>• The number and percent of schools that are not identified as Tier 1</li> </ul>

- The percent of Renewal/Focus Schools teachers identified as highly effective, effective, and ineffective
- The percent of students in Renewal/Focus Schools who graduate on time or graduate through the extended graduation
- The percent of students in Renewal/Focus Schools who meet ACT benchmarks
- The percent of graduates who enroll in post-secondary institutions
- The value-added scores for the Renewal Schools in reading, language arts, and science
- The development and implementation of transitional strategies for successful Renewal/Focus Schools
- The identification and dissemination of “best practices” to all LEAs
- The identification and removal of barriers, such as state laws, policies, or negotiated contracts, that prevent persistently low-achieving schools achieve success in their home LEAs
- The number and percent of Renewal/Focus Schools that meet academic goals and targets of the grant as outlined in A1(iii)

**For all of these activities, the responsible party will be the Executive Director of Accountability**

Year 1 2010-11	Year 2 2011-12	Year 3 2012-13	Year 4 2013-14
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<p><b><i>Renewal Schools (Restructuring 1, Corrective Action)</i></b></p>	<p>Finalize list of state-approved redesign providers based on RFI</p> <p>Identify schools in corrective action and restructuring 1 based on 2009-10 data and categorize them as 2010-11 Renewal schools</p> <p>Identify Renewal Schools that are Tier 1, 2, or 3</p> <p>Hold a dissemination event for renewal schools of approved redesign providers</p> <p>Provide technical assistance from “turnaround” specialists to all Renewal schools to choose an approved redesign</p> <p>Schools choose an approved redesign</p> <p>Tier 1 schools choose one of the four Title I school intervention models to implement in conjunction</p>	<p>2010-11 Renewal schools implement redesign with technical assistance from turnaround specialists</p> <p>Identify schools in corrective action based on 2010-11 data and categorize them as 2011-12 Renewal schools</p> <p>Identify Renewal Schools that are Tier 1, 2, or 3</p> <p>Hold a dissemination event for renewal schools of approved redesign providers</p> <p>Provide technical assistance from turnaround specialists to all Renewal schools to choose an approved redesign</p> <p>Schools chose an approved redesign</p> <p>Tier 1 schools choose one of the four Title I school intervention models to implement in conjunction with redesign</p>	<p>2012-13 Renewal schools implement redesign with technical assistance from turnaround specialists</p> <p>Identify schools in corrective action based on 2012-13 data and categorize them as 2012-13 renewal schools</p> <p>Identify Renewal Schools that are Tier 1, 2, or 3</p> <p>Hold a dissemination event for renewal schools of approved redesign providers</p> <p>Provide technical assistance from turnaround specialists to all renewal schools to choose an approved redesign</p> <p>Schools choose an approved redesign</p> <p>Tier 1 schools choose</p>	<p>2013-14 Renewal schools implement redesign with technical assistance from turnaround specialists</p> <p>Identify schools in corrective action based on 2013-14 data and categorize them as 2013-14 Renewal schools</p> <p>Identify Renewal Schools that are Tier 1, 2, or 3</p> <p>Hold a dissemination event for Renewal schools of approved redesign providers</p> <p>Provide technical assistance from turnaround specialists to all renewal schools to choose an approved redesign</p> <p>Schools choose an approved redesign</p> <p>Tier 1 schools choose</p>
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	<p>with redesign</p> <p>Schools submit a revised school improvement plan that incorporates redesign for SY 2011-12</p> <p>LEAs with Tier 1 schools submit an application for Title I School Improvement Funds to implement redesign model in conjunction with school intervention model</p> <p>LEAs with Tier 3 schools submit an application for Title I School Improvement Funds to implement redesign model</p> <p>LEAs with non- Title I schools submit an application for state RTTT funds to implement redesign model</p> <p>State approves school improvement plan and chosen redesign</p> <p>State approves applications for RTTT and Title I</p>	<p>Schools submit a revised school improvement plan that incorporates redesign for SY 2011-12</p> <p>LEAs with Tier 1 schools submit an application for Title I School Improvement Funds to implement redesign model in conjunction with school intervention model</p> <p>LEAs with Tier 3 schools submit an application for Title I School Improvement Funds to implement redesign model</p> <p>LEAs with non- Title I schools submit an application for state RTTT Funds to implement redesign model</p> <p>State approves school improvement plan and chosen redesign</p> <p>State approves applications for RTTT and Title I school improvement funds</p>	<p>one of the four Title I school intervention models to implement in conjunction with redesign</p> <p>Schools submit a revised school improvement plan that incorporates redesign for SY 2012-13</p> <p>LEAs with Tier 1 schools submit an application for Title I School Improvement Funds to implement redesign model in conjunction with school intervention model</p> <p>LEAs with non- Title I schools submit an application for state RTTT Funds to implement redesign model</p> <p>LEAs with Tier 3 schools submit an application for Title I School Improvement</p>	<p>one of the four Title I school intervention models to implement in conjunction with redesign</p> <p>Schools submit a revised school improvement plan that incorporates redesign for SY 2013-14</p> <p>LEAs with Tier 1 schools submit an application for Title I School Improvement Funds to implement redesign model in conjunction with school intervention model</p> <p>LEAs with non- Title I schools submit an application for state RTTT Funds to implement redesign model</p> <p>LEAs with Tier 3 schools submit an application for Title I School Improvement Funds to implement</p>
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	<p>school improvement funds</p> <p>State develops annual performance benchmarks based on measurement indicators and implementation indicators for Renewal Schools</p>	<p>Finalize annual performance benchmarks based on measurement indicators and implementation indicators for Renewal Schools</p> <p>Employ annual performance benchmarks based on measurement indicators and implementation indicators for Renewal Schools</p> <p>Determine and finalize readiness criteria for schools to transition to a less intensive level of state support</p>	<p>Funds to implement redesign model</p> <p>State approves school improvement plan and chosen redesign</p> <p>State approves applications for RTTT and Title I school improvement funds</p> <p>Employ annual performance benchmarks based on measurement indicators and implementation indicators for Renewal Schools</p> <p>Identify schools that meet the Readiness criteria to transition to a less intensive level of state support and develop a transition plan for sustainability</p>	<p>redesign model</p> <p>State approves school improvement plan and chosen redesign</p> <p>State approves applications for RTTT and Title I school improvement funds</p> <p>Employ annual performance benchmarks based on measurement indicators and implementation indicators for Renewal schools</p> <p>Identify 2010-11 Renewal schools that meet the readiness criteria to transition to a less intensive level of state support and develop a transition plan for sustainability</p>
<p><b><i>Focus Schools in School Improvement 1, 2</i></b></p>	<p>Identify schools in School Improvement 1 and 2 based on 2009-10 data and categorize them as 2010-11 Focus schools</p>	<p>Identify schools in School Improvement 1 and 2 based on 2010-11 data and categorize them as 2010-12 Focus schools</p>	<p>Identify schools in School Improvement 1 and 2 based on 2010-12 data and categorize them as 2010-13</p>	<p>Identify schools in School Improvement 1 and 2 based on 2010-13 data and categorize them as 2010-14 Focus</p>

	<p>Identify Renewal Schools that are Tier 1, 2, or 3</p> <p>Assign technical service providers (such as Exemplary Educators or AGE staff) to each school in the Focus Schools category</p> <p>Providers collaborate with schools to revise school improvement plan based on needs and begin to implement it</p> <p>Tier 1 schools choose one of the four school intervention models to include it their school improvement plan</p> <p>LEAs with eligible schools apply for Title I school improvement funds</p> <p>Evaluate annual progress of schools in meeting AYP benchmarks</p>	<p>Identify Renewal Schools that are Tier 1, 2, or 3</p> <p>Assign technical service providers (such as Exemplary Educators or AGE staff) to each school</p> <p>Providers collaborate with schools to revise school improvement plan based on needs and begin to implement it</p> <p>Tier 1 schools choose one of the four school intervention models to include it their school improvement plan</p> <p>LEAs with eligible schools apply for Title I school improvement funds</p>	<p>Focus schools</p> <p>Identify Renewal Schools that are Tier 1, 2, or 3</p> <p>Assign technical service providers (such as Exemplary Educators or AGE staff) to each school</p> <p>Providers collaborate with schools to revise school improvement plan based on needs and begin to implement it</p> <p>Tier 1 schools choose one of the four school intervention models to include it their school improvement plan</p> <p>LEAs with eligible schools apply for Title I school improvement funds</p>	<p>schools</p> <p>Identify Renewal Schools that are Tier 1, 2, or 3</p> <p>Assign technical service providers (such as Exemplary Educators or AGE staff) to each school</p> <p>Providers collaborate with schools to revise school improvement plan based on needs and begin to implement it</p> <p>Tier 1 schools choose one of the four school intervention models to include it their school improvement plan</p> <p>LEAs with eligible schools apply for Title I school improvement funds</p>
<b><i>Best Practices</i></b>	Execute contract with state evaluation team to identify best practices (please see	Team begins evaluation and identification of potential best practices	Team continues to evaluate and identify potential best practices	Team continues to evaluate and identify potential best practices

	Section C)		<p>Team identifies promising practices</p> <p>State disseminates promising practices</p> <p>State identifies any barriers in laws or policies that prevent implementation of best practices and works to remove them</p>	<p>Team identifies promising practices</p> <p>State disseminates promising practices</p> <p>State identifies any barriers in laws or policies that prevent implementation of best practices and works to remove them</p>
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### **THE ROLE OF HIGHER EDUCATION IN SCHOOL TURNAROUND**

Tennessee’s institutions of higher education have a wide array of content experts to assist failing schools. Higher education faculty will provide support for schools without the available resources in specific content areas. Higher education faculty will work closely with K-12 teachers in improving educational outcomes in hard-to-staff content areas such as secondary math and science.

As Tennessee works with local and national non-profit partners on our lowest-achieving schools, Tennessee public and private universities with teacher and school leader preparation programs should have a collateral role in turnaround strategy by providing services that fill “gaps” not addressed by outside providers. Currently, 114 schools are classified as in School Improvement 1 or School Improvement 2 status (Focus Schools), meaning they have not made AYP for at least two consecutive years. In our current system, they may not be served by our non-profit partners, who are concentrating their resources in the Achievement School District. Institutions of higher education will be a key provider in professional development to assist these schools with improving and maintaining performance. Higher education can provide numerous services such as:

- Capitalizing on existing community-school networks within the defined service area of the low-performing school
- Collaborating with primary providers on school curriculum changes
- Using Tennessee universities’ knowledge and experience with Tennessee assessments, value-added data (TVAAS), and school report cards
- Building model on use of data for student success and embedding instruction on use of TVAAS and other predictive data in teacher preparation program curricula
- Using Tennessee universities’ interface with local P-16 councils
- Using Tennessee universities’ infrastructure for placing and mentoring teachers in training
- Using Tennessee universities’ existing infrastructure for in-service professional development
- Using Tennessee universities’ relationships with local media

- Developing research cooperatives involving Tennessee universities and contracted providers for the enrichment of both
- Cooperatively developing outcomes expectations to sustain schools once reclaimed and returned to local education agency administration
- Directly informing Tennessee universities’ curriculum changes in pre-service professional development based on outcomes of the turn-around experiences

The Department of Education will collaborate with the Tennessee Higher Education Commission (THEC) to provide a list of the schools in School Improvement 1 and 2. THEC will issue an RFP to institutions of higher education that will focus on these schools. IHEs will collaborate with district and school leadership to provide appropriate interventions and training to assist in the success of these schools. Higher education institutions will also provide training on using TVAAS data to modify classroom behavior and improve student achievement. Through the Improving Teacher Quality grant, higher education institutions provide extensive training to 650 teachers annually. In order to address the need of significant number of schools falling behind, this funding will need to be tripled. This will provide for an extensive network of professional development opportunities for these schools, directed interventions to schools on the high priority list, and training to use predictive data to improve outcomes.

Based on past Improving Teacher Quality grants that have targeted one school with extensive professional development support, THEC anticipates awarding sub grants of \$75,000-\$100,000 yearly. This would allow for focused, intense professional development in approximately 140 School Improvement 1 and 2 schools (Focus Schools) over the four-year grant period. The higher education faculty will collaborate with the Department of Education’s professional development efforts in these schools. Table 1 shows the projection of the number of schools in this category that will receive directed professional development through higher education institutions.

**Table 1: Number of Schools in School Improvement 1 and 2 Status (Focus Schools) that will Receive Professional Development from Higher Education**

	Year 1 2010-11	Year 2 2011-12	Year 3 2012-13	Year 4 2013-14	TOTAL
# of Schools	35	35	35	35	140

**State Appropriation Expenditures and Revenues  
FY 2008 and FY 2009**

	<u>FY 2007-2008</u>		<u>FY 2008-2009</u>	
<b>State Revenues</b>				
State Tax Revenue - Dept. of Revenue	11,117,583,200		10,153,530,000	
State Tax Revenue - Other State Revenue	1,034,907,800		938,300,000	
Lottery Funded Revenue:	<u>270,348,700</u>		<u>395,125,701</u>	
Lottery for Education	262,400,000		293,201,301	
After-School Programs	7,948,700		11,924,400	
Energy Efficient Schools	-		90,000,000	
 Total State Revenue	 <u>12,422,839,700</u>		 <u>11,091,830,000</u>	
 <b>Department of Education</b>				
Total Expenditures	3,756,810,400	30.24%	3,839,327,800	34.61%
Non-Dedicated Appropriations:	3,747,185,200	33.71%	3,735,827,600	36.79%
Basic Education Program (BEP formula)	3,478,347,000		3,555,190,600	
Early Childhood Education	54,517,900 <sup>1</sup>		57,116,400 <sup>1</sup>	
Other Education Programs	214,320,300		123,520,600	
Dedicated Appropriations:	<u>9,625,200</u>		<u>103,500,200</u>	
Boys and Girls Club	130,000		102,200	
Driver Education	1,546,500		1,473,600	
After-School Programs	7,948,700		11,924,400	
Energy Efficient Schools	-		90,000,000	
 <b>Higher Education</b>				
Total Expenditures	1,637,820,200	13.18%	1,568,620,700	14.14%
Non-Dedicated Appropriations:	1,375,420,200	12.37%	1,275,419,400	12.56%
Public Institutions of Higher Education <sup>2</sup>	1,275,975,900		1,193,641,100	
Other Higher Education Programs	99,444,300		81,778,300	
Dedicated Appropriations:				
Lottery for Education Account	262,400,000		293,201,300	

FY 2007-2008 is based on Actual expenditures and revenue collections. FY 2008-2009 are preliminary estimates. State Tax Revenue into Dept. of Revenue for FY 2009 is final.

<sup>1</sup> An additional \$25 M was allocated from excess lottery proceeds in each year. These funds are reflected as interdepartmental revenue from the Lottery for Educ. Acct.

<sup>2</sup> Public Institutions of Higher Education are those as defined in the Tennessee application for State Fiscal Stabilization Funds.

## CHARTER SCHOOLS

Title 49, Chapter 13, is the Tennessee Public Charter Schools Act of 2002. Below are specific statutes that may be relevant to Race to The Top discussions.

**Tenn. Code Ann. §49-13-101** contains the Tennessee Public Charter School Act.

**Tenn. Code Ann. §49-13-102. Purpose.** —

(a) The purpose of this chapter is to:

(1) Improve learning for all students and close the achievement gap between high and low students;

(2) Provide options for parents to meet educational needs of students in high priority schools;

(3) Encourage the use of different and innovative teaching methods, and provide greater decision making authority to schools and teachers in exchange for greater responsibility for student performance;

(4) Measure performance of pupils and faculty, and ensure that children have the opportunity to reach proficiency on state academic assessments;

(5) Create new professional opportunities for teachers; and

**(6)** Afford parents substantial meaningful opportunities to participate in the education of their children.

**(b)** It is the intention of this chapter to provide an alternative means within the public school system for ensuring accomplishment of the necessary outcomes of education by allowing the establishment and maintenance of public charter schools that operate within a school district structure but are allowed maximum flexibility to achieve their goals.

**(c)** It is the intent of this chapter to provide both the state department of education and local school systems with options relative to the governance and improvement of high priority schools failing to meet adequate yearly progress as outlined in both § 49-1-602 and the federal Elementary and Secondary Education Act, compiled in 20 U.S.C. § 6301 et seq.

**(d)** It is the intent of this chapter to provide the state department of education and local school systems with options relative to the delivery of instruction for those students with special needs as specified in the federal IDEA.

**(e)** It is the intent of this chapter to provide local school systems the option to work in concert with the state's public higher education institutions to establish charter school “laboratories of teaching and learning” as a means of fostering educational innovations for implementation statewide.

[Acts 2002, ch. 850, § 2; 2004, ch. 832, § 4; 2009, ch. 555, § 4.]

**Tenn. Code Ann. § 49-13-103. Application. —**

This chapter applies only to schools formed and operated in accordance with this chapter.

**Tenn. Code Ann. §49-13-104 Definitions -**

As used in this chapter:

(1) “Charter agreement” means a performance-based agreement between the sponsor of a public charter school and the chartering authority, the terms of which are approved by the chartering authority for an initial period of ten (10) years;

(2) “Chartering authority” means the local board of education that approves, renews or decides not to revoke a public charter school application or agreement;

(3) “Governing body” means the organized group of persons who will operate a public charter school by deciding matters, including, but not limited to, budgeting, curriculum and other operating procedures for the public charter school and by overseeing management and administration of a public charter school. The membership of a charter school's governing body shall include at least one (1) parent representative whose child is currently enrolled in the charter school. The parent representative shall be appointed by the governing body within six (6) months of the school's opening date;

(4) “Licensed teacher” means a person over the age of eighteen (18) who meets the qualifications of chapter 5, part 1 of this title and has received a license to teach in the public school system in compliance with the rules and regulations of the state board of education;

(5) “Local education agency” or “LEA” has the same definition as used in § 49-3-302;

(6) “Public charter school” means a public school in this state that is established and operating under the terms of a charter agreement and in accordance with this chapter; and

(7) “Sponsor” means any individual, group, or other organization filing an application in support of the establishment of a public charter school; provided, however, that a sponsor cannot be a for-profit entity, a private elementary or secondary school, a post-secondary institution not accredited by the Southern Association of Colleges and Schools, a religious or church school or promote the agenda of any religious denomination or religiously affiliated entity.

**Tenn. Code Ann. §49-13-105** gives the sponsor of a proposed charter school the authority to apply to either the LEA or the commissioner of education for a waiver of any state board rule or statute that inhibits or hinders the proposed charter school’s ability to meet its goals or comply with its mission statement. Please note that LEAs also have the right to apply to the commissioner for a waiver of State Board rules but not statutes. The statute does include a list of laws and rules that may not be waived. This list contains statutes and rules related to:

- Federal and state civil rights;
- Federal, state, and local health and safety;
- Federal and state public records;
- Immunizations;
- Possession of weapons on school grounds;
- Background checks and fingerprinting of personnel;
- Federal and state special education services;

- Student due process;
- Parental rights;
- Federal and state student assessment and accountability;
- Open meetings; and
- At least the same equivalent time of instruction as required in regular public schools.

**Tenn. Code Ann. §49-13-106** specifies how new charter schools may be created and how schools may be converted to charter schools. Tenn. Code Ann. §49-13-106(b) (2) describes the procedures for converting schools to charter schools. Three conversion options are listed:

- Option 1: Pursuant to Tenn. Code Ann. §49-13-106(b) (2) (A), the school may convert if 60% of the parents and 60% of the teachers assigned to the school agree and sign petitions for conversion and the LEA agrees to convert.
- Option 2: Pursuant to Tenn. Code Ann. §49-13-106(b) (2) (B) and subject to Tenn. Code Ann. §49-13-106(a) (1) (B), a LEA may convert an eligible public school to a public charter school.
- Option 3: Pursuant to Tenn. Code Ann. §49-13-106(b) (2) (E), “a public school in Restructuring 2-Alternative governance under §49-1-602(g), at the option of the commissioner of education, may be converted to a public charter school. If the commissioner selects this option for the school, then during the fifth year of improvement status, the commissioner is authorized to solicit applications for the conversion of the school to a charter school. Applications for conversion of a school may be submitted to the commissioner of education by any entity that qualifies as a sponsor of a charter school under §49-13-104 or by the LEA. If the commissioner, with the advice of the state board of education, approves an application for conversion the school to a charter school, the school shall become a public charter school at the beginning of the school year following the fifth year of improvement status. If no charter application is submitted to the commissioner, the commissioner may direct the LEA to submit a charter application for conversion of the school so that the school may commence operation as a charter school at the beginning of the school year following the fifth year of improvement status. Parents whose children are enrolled at the school shall have the option to enroll their children in another public school without penalty.” The last part of subsection (E) is confusing. It states that if the commissioner receives no conversion applications, the LEA may submit charter conversion applications. However, even if the LEA submits an application, a separate entity from the LEA must be the governing body. This was clarified by the Attorney General in attached opinion 09-159.

**Tenn. Code Ann. §49-13-107 Application Process -**

On or before October 1 of the year preceding the year in which the proposed public charter school plans to begin operation, the sponsor seeking to establish a public charter school shall prepare and file with the local board of education an application providing the following information and documents:

- (1) A statement defining the mission and goals of the proposed public charter school;

**(2)** The proposed instructional goals and methods for the school, which, at a minimum, shall include teaching and classroom instruction methods that will be used to provide students with the knowledge, proficiency and skills needed to reach the goals of the school;

**(3)** A plan for evaluating student academic achievement at the proposed public charter school and the procedures for remedial action that will be used by the school when the academic achievement of a student falls below acceptable standards;

**(4)** An operating budget based on anticipated enrollment;

**(5)** The method for conducting annual audits of the financial, administrative and program operations of the school;

**(6)** A timetable for commencing operations as a public charter school that shall provide for a minimum number of academic instruction days, which shall not be fewer than those required by statute;

**(7)** The proposed rules and policies for governance and operation of the school;

**(8)** The names and addresses of the members of the governing body;

**(9)** A description of the anticipated student enrollment and the nondiscriminatory admission policies;

**(10)** The code of behavior and discipline of the proposed public charter school;

**(11)** The plan for compliance with the applicable health and safety laws and regulations of the federal government and the laws of the state;

(12) The qualifications required of employees of the proposed public charter school;

(13) The identification of the individuals and entities sponsoring the proposed public charter school, including their names and addresses;

(14) The procedures governing the deposit and investment of idle funds, purchasing procedures and comprehensive travel regulations;

(15) The plan for the management and administration of the school;

(16) A copy of the proposed bylaws of the governing body of the charter school;

(17) A statement of assurance of liability by the governing body of the charter school;

(18) Types and amounts of insurance coverage to be held either by the charter school or approved by the local board of education, including provisions for assuring that the insurance provider will notify the department of education within ten (10) days of the cancellation of any insurance it carries on the charter school;

(19) The plan for transportation for the pupils attending the charter school; and

(20) Information regarding financing commitments from equity investors or debt sources for cash or similar liquid assets sufficient to demonstrate that the charter school will have liquid assets sufficiently available to operate the school on an ongoing and sound financial basis. In lieu of cash or similar liquid assets, an applicant may provide a financial bond issued by a company authorized to issue surety bonds in this state.

**Tenn. Code Ann. §49-13-108** describes the process for approval or denial of an application: This section shall apply only to applications for new charter schools under § 49-13-106(b)(1).

(1) The local board of education shall have the authority to approve applications to establish public charter schools and renew public charter school agreements. The local board of education shall rule by resolution, at a regular or special called meeting, on the approval or denial of a charter application within sixty (60) days of receipt of the completed application. Should the local board of education fail to either approve or deny a charter application within the sixty (60) day time limit prescribed in this subdivision (1), the application shall be deemed approved.

(2) The local board of education shall not deny an application on the basis that approval of the application might exceed the maximum number of public charter schools provided for in § 49-13-106. The grounds upon which the local board of education based a decision to deny a public charter school application must be stated in writing, specifying objective reasons for the denial. Upon receipt of the grounds for denial, the sponsor shall have fifteen (15) days within which to submit an amended application to correct the deficiencies. The local board of education shall have fifteen (15) days either to deny or to approve the amended application.

(3) A denial by the local board of education of an application to establish a public charter school may be appealed by the sponsor, within ten (10) days of the final decision to deny, to the state board of education. The appeal and review process shall be in accordance with this subdivision (3). Within sixty (60) days after receipt of the notice of appeal or the making of a motion to review by the state board and after reasonable public notice, the state board, at a public hearing attended by the board or its designated representative and held in the school district in which the proposed charter school has applied for a charter, shall review the decision of the local board of education and make its findings. If the state board finds that the local board's decision was contrary to the best interests of the pupils, school district or community, the state board shall remand the decision to the local board of education with written instructions for approval of the charter. The decision of the state board shall be final and not subject to appeal. The LEA, however, shall be the chartering authority.

[Acts 2002, ch. 850, § 8; 2009, ch. 555, § 7.]

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**Tenn. Code Ann. §49-13-109. Applicable caps. —**

Immediately upon approval of a charter, the chartering authority shall notify the department of education. The date of the official action by the chartering authority shall be considered by the department in determining whether the charter is permitted under the applicable caps contained in this chapter.

**Tenn. Code Ann. §49-13-110 Charter Agreement -**

**(a)** The approval by the chartering authority of a public charter school application shall be in the form of a written agreement signed by the sponsor and the chartering authority, which shall be binding upon the governing body of the public charter school. The charter agreement for a public charter school shall be in writing and contain all components of the application.

**(b)** The governing body of the charter school may amend the original charter by making petition to the chartering authority. Timelines for approval and the appeal process in § 49-13-108 shall apply to all petitions to amend the original charter. The governing body of a charter school may also request the chartering authority to allow a voluntary termination of the charter school prior to the expiration of the charter.

**(c) (1)** Upon dissolution of a charter school for any reason or if a charter is not renewed, any unencumbered public funds from the charter school shall revert to the LEA. In the event that a charter school is dissolved or otherwise terminated, all LEA property and improvements, furnishings and equipment purchased with public funds shall automatically revert to full ownership by the LEA, subject to complete satisfaction of any lawful liens or encumbrances.

**(2)** If a charter school is dissolved for any reason or a charter is not renewed, the charter school is responsible for all debts of the charter school. The LEA may not assume the debt from any contract for services made between the governing body of the school and a third party,

except for a debt that is previously detailed and agreed upon in writing by both the LEA and the governing body of the school and that may not reasonably be assumed to have been satisfied by the LEA.

**Tenn. Code Ann. §49-13-111 Compliance -**

**a)** A public charter school shall:

**(1)** Operate as a public, nonsectarian, nonreligious public school, with control of instruction vested in the governing body of the school under the general supervision of the chartering authority and in compliance with the charter agreement and this chapter;

**(2)** Meet the same performance standards and requirements adopted by the state board of education for public schools;

**(3)** Receive state, federal, and local funds from the local board of education;

**(4)** Provide special education services for students as provided in chapter 10 of this title; and

**(5)** Administer state assessments as provided in chapter 1, part 6 of this title.

**(b)** A public charter school shall be subject to all federal and state laws and constitutional provisions prohibiting discrimination on the basis of disability, race, creed, color, national origin, religion, ancestry or need for special education services. A public charter school may not violate or be used to subvert any state or federal court orders in place in the local school district.

**(c) (1)** A public charter school shall comply with all applicable health and safety standards, regulations and laws of the United States and this state.

**(2)** The governing body of a public charter school shall ensure that the public charter school provides parents and guardians with information about meningococcal disease and the effectiveness of vaccination against meningococcal disease at the beginning of every school year. This information shall include the causes, symptoms, and the means by which meningococcal disease is spread and the places where parents and guardians may obtain additional information and vaccinations for their children. Nothing in this subdivision (c)(2) shall be construed to require a public charter school or its governing body to provide or purchase vaccine against meningococcal disease.

**(d)** A public charter school shall be accountable to the chartering authority for the purposes of ensuring compliance with the charter agreement and the requirements of this chapter.

**(e)** All contracts for goods and services in excess of five thousand dollars (\$5,000) shall be bid and must be approved by the governing body of each public charter school.

**(f)** A public charter school shall be governed and managed by a governing body in a manner agreed to by the sponsor and the chartering authority as provided in the charter agreement.

**(g)** With regard to conflicts of interest, the governing body of a public charter school shall be subject to the provisions of §§ 12-4-101 and 12-4-102.

**(h)** The meetings of the governing body of a public charter school shall be deemed public business and must be held in compliance with title 8, chapter 44, part 1.

**(i)** All teachers in a public charter school must have a current valid Tennessee teaching license or meet the minimum requirements for licensure as defined by the state board of education.

**(j)** A public charter school is subject to state audit procedures and audit requirements.

**(k)** A public charter school shall not charge tuition; provided, however, that tuition may be charged if the governing body of the charter school approves a transfer from another district to a public charter school in its district pursuant to the provisions of § 49-6-3003.

**(l)** A public charter school shall be operated on a July 1 to June 30 fiscal year and the governing body shall adopt and operate under an annual budget for the fiscal year. The budget shall be prepared in the same format as that required by the state department of education for LEAs.

**(m)** A public charter school shall maintain its accounts and records in accordance with generally accepted accounting principles and in conformance with the uniform chart of accounts and accounting requirements prescribed by the comptroller of the treasury. The charter school shall prepare and publish an annual financial report that encompasses all funds. The annual financial report shall include the audited financial statements of the charter school.

**(n)** A public charter school shall require any member of the governing body, employee, officer or other authorized person who receives funds, has access to funds, or has authority to make expenditures from funds, to give a surety bond in the form prescribed by § 8-19-101. The cost of the surety bond shall be paid by the charter school and shall be in an amount determined by the governing body.

**Tenn. Code Ann. §49-13-112** describes how charter schools are to be funded:

**(a)** A local board of education shall allocate to the charter school an amount equal to the per student state and local funds received by the LEA and all appropriate allocations under federal law or regulation, including, but not limited to, Title I and ESEA funds. The allocation shall be in accordance with rules and regulations promulgated by the department of education. All funds received by a charter school shall be spent according to the budget submitted or as otherwise revised by the public charter school governing body, subject to the requirements of state and federal law. At the request of the charter school governing body, a local board of education may act as fiscal agent for a public charter school in accordance with the charter agreement and applicable state and federal law.

**(b)** The department of education shall promulgate rules and regulations that provide for the determination of the allocation of state and local funds as provided in subsection (a). The department shall promulgate the rules and regulations effective for the 2010-2011 school years. Notwithstanding § 4-5-209, any rules promulgated under this subsection (b) may be promulgated as emergency rules in accordance with the Uniform Administrative Procedures Act, compiled in title 4, chapter 5, part 2. At a minimum, the rules shall provide that:

**(1)** Allocations shall be based on one hundred percent (100%) of state and local funds received by the LEA, including current funds allocated for capital outlay purposes, excluding the proceeds of debt obligations and associated debt service;

**(2)** Student enrollments used in allocations shall be for the same period used in allocating state funds to the LEA under the basic education program (BEP); and

**(3)** Allocations to the charter school may not be reduced by the LEA for administrative, indirect or any other category of cost or charge except as specifically provided in a charter agreement.

**(c) (1)** Notwithstanding any provisions of chapter 3, part 3 of this title or this section to the contrary, the department of education shall calculate the amount of state funding required under

the BEP for capital outlay as a non-classroom component to be received in a fiscal year by an LEA in which one (1) or more charter schools operate. The department shall reserve from the sum for such LEA the funds that constitute the amount due to charter schools operating in the LEA and shall not distribute such reserved amount to the LEA. The department shall distribute from the reserved amount directly to each charter school its total per pupil share as determined by its average daily membership (ADM). The per pupil share of each charter school shall be based on prior year ADM, except that the per pupil share of any charter school in its first year of operation shall be based on the anticipated enrollment in the charter agreement.

**(2)** Although the BEP does not require LEAs to expend specific amounts for the individual components by which the funds were generated, the per pupil funding required to be paid directly by the department to a charter school under this subsection (c) shall be used solely for charter school facilities. Such per pupil facilities aid may be used for rent for school facilities, construction, renovation of an existing school facility, leasehold improvements, debt service on a school facility or purchase of a building or land; provided, that no such funds shall be expended for purchase of land when the charter school does not have immediate plans to construct a building on the land.

**(3)** Notwithstanding subdivision (c)(1), the LEA shall include in the local share of funds paid to a charter school the required LEA match for the state funds generated under the BEP for capital outlay as a non-classroom component that are paid under this subsection (c) directly to a charter school as per pupil facilities aid.

**(d)** In order to comply with the requirements for allocating funds to the public charter school, the local board of education may provide liability or other forms of insurance pursuant to the charter agreement.

**(e)** A public charter school may also be funded by:

**(1) (A)** Federal grants;

(B) Grants, gifts, devises or donations from any private sources;

(C) State funds appropriated for the support of the public charter school, if any; and

(D) Any other funds that may be received by the local school district.

(2) Receipt of any such funds shall be reported to the chartering authority. Public charter schools, the local board of education and the state department of education are encouraged to apply for federal funds appropriated specifically for the support of public charter schools.

**Tenn. Code Ann. §49-13-113 Enrollment –**

(a) Participation in a public charter school shall be based on parental choice or the choice of the legal guardian or custodian.

(b) (1) A charter school shall enroll an eligible pupil who submits a timely application, unless the number of applications exceeds the capacity of a program, class, grade level or building.

(2) (A) If applications exceed the planned capacity of the public charter school, the following preferences shall apply:

**(i)** Pupils in attendance in the previous school year at any public school that converts to become a public charter school;

**(ii)** Pupils attending public schools within the LEA in which the public charter school is located, if those pupils would otherwise be included in the area in which the public charter school will focus;

**(iii)** Children residing within the LEA service area in which the public charter school is located, but who are not enrolled in public schools, if those children would otherwise be included in the area in which the public charter school will focus; and

**(iv)** Children residing outside the LEA in which the public charter school is located and whose needs would be included in the area in which the public charter school will focus.

**(B)** If enrollment within a group of preference set out in subdivision (b)(2)(A) exceeds the planned capacity of the school, enrollment within that group shall be determined on the basis of a lottery.

**(c)** Subject to the requirements of subsections (a) and (b), preference may be afforded to the siblings of a pupil who is already enrolled and to the children of a teacher, sponsor or member of the governing body of the charter school, not to exceed ten percent (10%) of total enrollment or twenty-five (25) students, whichever is less.

**(d) (1)** Notwithstanding provisions of subsections (b) and (c) to the contrary, a charter school shall conduct an initial student application period of at least thirty (30) days. During the initial student application period, students meeting the requirements of § 49-13-106(a)(1)(A)-(D) shall be given priority. If the number of students seeking to be enrolled who meet the requirements of § 49-13-106(a)(1)(A)-(D) exceeds the school's capacity or the capacity of a program, class, grade level or building, then the enrollment of students meeting the requirements of § 49-13-106(a)(1)(B)-(D) shall be determined on the basis of a lottery. If the number of students seeking to be enrolled who meet the requirements of § 49-13-106(a)(1)(A)-(D) does not exceed the capacity of a program, class, grade level or building, then, after the initial student application period, the charter school may enroll students in such program, class, grade level or building who meet the requirements of § 49-13-106(a)(1)(E). If the number of students seeking to be enrolled who meet the requirements of § 49-13-106(a)(1)(E) exceeds the school's capacity or the capacity of a program, class, grade level or building remaining after the initial student application period has ended, then enrollment for students meeting the requirements of § 49-13-106(a)(1)(E) shall be determined on the basis of a lottery. Any lottery required to be conducted under this subsection (d) shall be conducted within seven (7) days after the end of the initial student application period. After the initial student application period, a charter school with unfilled capacity in a program, class, grade level or building may enroll any student seeking enrollment in the program, class, grade level or building who meets the requirements of § 49-13-106(a)(1)(A)-(E).

**(2)** A charter school shall provide to the department of education certification by an independent accounting firm or by a law firm that each lottery conducted for enrollment purposes complied with the requirements of this subsection (d). In lieu of such certification, a charter school may request that the department of education review and approve the lottery process.

(3) The charter school shall comply with the Family Education Rights and Privacy Act, codified in 20 U.S.C. § 1232g, with respect to the publication of any list of students' names before, during or after the enrollment and lottery process.

(4) This subsection (d) shall only apply in LEAs in which students are eligible to enroll in charter schools pursuant to § 49-13-106(a)(1)(E).

(5) The state board of education shall promulgate rules and regulations concerning enrollment lotteries to be conducted under this subsection (d). The rules and regulations shall be promulgated in accordance with the Uniform Administrative Procedures Act, compiled in title 4, chapter 5.

**Tenn. Code Ann. §49-13-114. Transportation. —**

(a) If a public charter school elects to provide transportation for its pupils, the transportation shall be provided by the school or by agreement with the LEA within the district in which the school is located in the same manner it would be provided if the students were enrolled in any other school within the LEA. If a public charter school elects not to provide transportation for its pupils, the school shall not receive the funds that would otherwise have been spent to do so.

(b) For pupils who reside outside the district and who have been approved by the governing board of a charter school to attend a public charter school, the school is not required to provide or pay for transportation.

(c) At the time a pupil enrolls in a public charter school, the school shall provide the child's parent or guardian with information regarding transportation.

(d) Both the school and the LEA in which the school is located shall include in their annual reports what transportation plans are in effect for charter schools.

**Tenn. Code Ann. §49-13-115 Conditional Approval –**

If approval is a prerequisite for the sponsor to raise working capital, a chartering authority may grant conditional approval for a charter application. The chartering authority shall grant full approval subject to the sponsor providing information regarding financing commitments from equity investors or debt sources for cash or working capital sufficient to demonstrate that the charter school will have liquid assets sufficiently available to operate the school on an ongoing and sound financial basis. In lieu of cash or similar liquid assets, an applicant may provide a financial bond issued by a company authorized to issue surety bonds in this state. The office of the comptroller shall verify the adequacy of any financial bond provided as assets.

**Tenn. Code Ann. §49-13-116. Information on charter schools. —**

(a) The state department of education shall provide information to the public, directly and through the local board of education, on how to form and operate a public charter school. This information shall include a standard application format, which shall include the information specified in § 49-13-107.

(b) The state department of education shall monitor the status of charter school applications and shall maintain information on the total number of charter school applications, total number of charter school applications granted by type of school, total number of charter school applications denied and total number of charter school applications appealed and the status or outcome of the appeals.

**Tenn. Code Ann. §49-13-117 Leaves of absence for teachers –**

(a) If a teacher employed by an LEA makes a written request for an extended leave of absence to teach at a public charter school, the LEA may grant the leave. Any extensions are at the discretion of the LEA. The leave shall be governed by chapter 5, part 7 of this title, including, but not limited to, reinstatement, notice of intention to return, seniority, salary and insurance.

(b) The years of service acquired by a teacher while on a leave of absence to teach at a public charter school may, at the discretion of the local board, be used to obtain or determine tenure status.

(c) For salary rating purposes, a teacher shall receive credit for years of service acquired while teaching at a public charter school.

**Tenn. Code Ann. §49-13-118 Bargaining units. —**

Employees of a charter school may, if otherwise eligible, organize under the Education Professional Negotiations Act, compiled in chapter 5, part 6 of this title, and comply with its provisions upon the formation of one (1) or more bargaining units at the school. Bargaining units at the school shall be separate from any other unit within the LEA. Bargaining units in charter schools may elect to represent themselves in negotiations with their governing body, or they may elect to be represented by any qualified person or organization, including the local bargaining unit within the LEA. Bargaining units in charter schools can bargain only with the governing board of the charter school and not with the board of the LEA.

**Tenn. Code Ann. §49-13-119 Group insurance. —**

Teachers, as defined in § 8-34-101, of a public charter school shall participate in the group insurance plans authorized in title 8, chapter 27, part 3 in the same manner as teachers of the LEA.

**Tenn. Code Ann. §49-13-120** lists the reporting requirements of charter schools:

(a) The governing body of the public charter school shall make at least an annual progress report to the sponsor of the school, the chartering authority and the commissioner of education. The report shall contain at least the following information:

(1) The progress of the school towards achieving the goals outlined in its charter;

(2) The same information required in the reports prepared by local boards of education pursuant to state laws, rules and regulations; and

(3) Financial records of the school, including revenues and expenditures.

(b) The reports made pursuant to subsection (a) shall be public information pursuant to the provisions of § 10-7-504(a)(4). Based on the information provided to the commissioner of education under subsection (a), the commissioner shall prepare and submit an annual report on charter schools to the joint oversight committee on education.

(c) Each charter school shall provide in the report required under subsection (a) a detailed accounting, including the amounts and sources, of funds other than those funds received under § 49-13-112(a). The funds shall include, but not be limited to, any funds received from sources under § 49-13-112(e).

**Tenn. Code Ann. §49-13-121 Term of charter — Renewal. —**

(a) New public charter schools, conversion schools and all renewals of charter agreements shall be for ten-year periods.

**(b)** No later than October 1 of the year prior to the year in which the charter expires, the governing body of a public charter school shall submit a renewal application to the chartering authority. The chartering authority shall rule by resolution, at a regular or special called meeting, on whether to approve or deny the renewal application. The decision of the chartering authority shall be based on the report and evaluation provided for in § 49-13-120. If the original charter application was appealable to the state board of education, a decision by the chartering authority to deny renewal may be appealed by the governing body, within ten (10) days of the decision to deny, to the state board of education. If the state board of education directs the LEA to approve the renewal of the charter agreement, the public charter school shall continue to operate for the prescribed period of ten (10) academic years. A decision by the state board of education to deny the renewal of a charter agreement shall be final. No appeal may be taken.

**(c)** A public charter school renewal application shall contain a report of the school's operations, including students' standardized test scores, financial statements and performance audits of the nine (9) years preceding the date of the renewal application. The department of education shall develop guidelines that govern the charter renewal application process.

**(d)** An interim review of a charter school shall be conducted by the LEA under guidelines developed by the department of education in the fifth year of a charter school's initial period of operation and also in the fifth year following any renewal of a charter agreement. Such guidelines shall require a charter school to submit to the LEA a report on the progress of the school in achieving the goals, objectives, pupil performance standards, content standards and other terms of the approved charter agreement.

**Tenn. Code Ann. §49-13-122** lists when a charter school agreement may be revoked and how it may be renewed:

A public charter school agreement may be revoked or denied renewal by the final chartering authority if the chartering authority determines that the school did any of the following:

(1) Committed a material violation of any of the conditions, standards or procedures set forth in the charter;

(2) Failed to meet or make adequate yearly progress toward achievement of the state's accountability system; or

(3) Failed to meet generally accepted standards of fiscal management.

(b) If the chartering authority revokes or does not renew a charter agreement, the chartering authority shall state its reasons for the revocation or nonrenewal.

(c) A decision not to renew or to revoke a charter agreement may be appealed to the state board of education within ten (10) days of the decision, except for revocations or failures to renew based on any of the violations specified in subsection (d). State board appeals shall be handled on the same basis as provided in § 49-13-108.

(d) Except in the case of fraud, misappropriation of funds, flagrant disregard of the charter agreement or the provisions of this chapter or similar misconduct, or failure to make adequate yearly progress for two (2) consecutive years, a decision to revoke a charter shall become effective at the close of the academic year.

**Tenn. Code Ann. §49-13-123. Enrollment of students in terminated charter school. —**

If a charter agreement is not renewed or is terminated in accordance with § 49-13-122, a pupil who attended the school, siblings of the pupil, or another pupil who resides in the same place as the pupil may enroll in the resident district or may submit an application to a nonresident district according to § 49-6-3105 at any time. Applications and notices required by this section shall be

processed and approved in a prompt manner.

**Tenn. Code Ann. §49-13-124 Charter school powers. —**

**(a)** The governing body of a public charter school may sue and be sued. The governing body may not levy taxes or issue bonds except in accordance with state law. A public charter school may conduct activities necessary and appropriate to carry out its responsibilities such as:

**(1)** Contract for services, except for the management or operation of the charter school by a for-profit entity;

**(2)** Buy, sell or lease property;

**(3)** Borrow funds as needed; and

**(4)** Pledge its assets as security; provided, however, that those assets are not leased or loaned by the state or local government.

**(b)** The chartering authority may endorse the submission of the school credit bond application to the local taxing authority, if the project is a qualified project under § 54E(c)(2) or § 54F(d)(1) of the Internal Revenue Code of 1986, codified in 26 U.S.C. § 54E(c)(2) and 26 U.S.C. § 54F(d)(1), respectively, and the Tennessee State School Bond Authority Act, compiled in chapter 3, part 12 of this title, and with respect to § 54E(c)(2), the applicant can demonstrate that the applicant meets the ten percent (10%) matching funds requirement, as prescribed by § 54E(c)(2).

**Tenn. Code Ann. §49-13-125. Immunity. —**

The governing body of a charter school shall be subject to the same limits of liability as local school systems and shall provide insurance in accordance with § 49-13-107 for any liability

exposure.

**Tenn. Code Ann. §49-13-126** gives the State Board of Education authority to promulgate rules and regulations for the administration of the charter school law. Current effective rules are provided separately.

**Tenn. Code Ann. §49-13-127. Audits. —**

**(a)** The comptroller of the treasury is authorized to audit any books and records, including internal school activity and cafeteria funds, of any charter school created under this chapter and by virtue of the statutes of this state when the audit is deemed necessary or appropriate by the comptroller of the treasury. The comptroller of the treasury shall have the full cooperation of officials of the charter school in the performance of the audit or audits.

**(b) (1)** The governing body of the charter school shall cause an annual audit to be made of the accounts and records, including internal school activity and cafeteria funds, of their school. The audits may be prepared by certified public accountants or by the department of audit.

**(2)** The audit shall be completed as soon as practical after June 30 of each year and a copy of the audit shall be furnished to the local board of education, the special joint oversight committee on education, the commissioner of education and the comptroller of the treasury.

**(c)** The comptroller of the treasury, through the department of audit, shall be responsible for ensuring that the audits are prepared in accordance with generally accepted auditing standards and determining if the audits meet minimum audit standards and regulations, which shall be prescribed by the comptroller of the treasury. No audit may be accepted as meeting the requirements of this section until the audit has been approved by the comptroller of the treasury. In the event the governing body fails or refuses to have the audit prepared, then the comptroller of the treasury may appoint a certified public accountant or direct the department of audit to prepare the audit. The cost of the audit shall be paid by the governing body.

**Tenn. Code Ann. §49-13-128. [Obsolete.]**

**Tenn. Code Ann. §49-13-129. Study and evaluation of chapter — Appointment of task force. —**

The comptroller of the treasury, in consultation with the Tennessee department of education and the state board of education, shall appoint a task force to study and evaluate this chapter, to address, including, but not limited to, statutory inconsistencies and technical issues, fiscal issues, administrative compliance, identification and communication of charter schools' best practices, facility needs, transportation, food services, communication between LEAs and charter schools' boards, principals and administrative staff and employee benefits and charter school boards' accountability. The task force shall include, as a minimum, two (2) representatives from each LEA with approved and operational charter schools, two (2) charter school representatives selected by the Tennessee charter schools association, two (2) charter school parent representatives, and one (1) representative each from the department of education and state board of education and one (1) community representative from each grand division of the state. The comptroller shall report the task force's findings and recommendations, including recommended legislation or rules, to the general assembly by February 2, 2010.

**Tenn. Code Ann. §49-13-130. Reenactment and repeal of provisions of chapter relating to the creation of new public charter schools. —**

In accordance with Acts 2002, ch. 850, § 29, the provisions of this chapter related to the creation of new public charter schools are re-enacted and extended until July 1, 2015, at which time the provisions shall be repealed.

**Tenn. Code Ann. §49-13-131. Identification and implementation of system for dissemination of charter school most promising practices. —**

The department of education, in collaboration and cooperation with charter schools, shall identify charter school most promising practices and implement a system for dissemination of such practices. The system shall include identification of those schools that could benefit most directly from innovative practices in charter schools. The system of dissemination shall allow LEAs across the state and traditional public schools to learn from charter schools' most

promising practices.

**Tenn. Code Ann. §49-13-132 Adoption of dates and timelines for applications for conversion of schools in Restructuring 2 — Alternative Governance to charter schools. —**

Notwithstanding any provision of this chapter to the contrary, the commissioner of education may adopt dates and timelines for submitting applications and processing applications as the commissioner finds necessary to expedite the process of conversion of a school to a charter school in Restructuring 2 — Alternative Governance under § 49-1-602.

**Tenn. Code Ann. §49-13-133. Student tracking system to track students who leave charter schools — Report to general assembly. —**

The department of education shall develop a student tracking system to be used to track students who leave charter schools. The system shall show when and why the student left the charter school. The system may be modeled on the current tracking system used to determine high school dropout rates. A charter school shall report the data required by the tracking system to the LEA. The department shall include such data in its annual report on charter schools required under § 49-13-120.

### OTHER LAWS THAT PROMOTE INNOVATIVE SCHOOLS

**T.C.A. 49-15-101 et seq.**, allows LEAs to partner with post-secondary institutions to establish innovative high schools. These schools are specifically given the same statutory and regulatory waiver option as charter schools (T.C.A. 49-15-106(g)). (In effect, these laws give LEAs all the authority and options with non-chartered high schools that public charter school boards have.):

#### **49-15-101. Purpose — Requirements of programs. —**

**(a)** The purpose of this chapter is to authorize public postsecondary institutions and LEAs to jointly establish cooperative innovative programs in high schools and public postsecondary institutions, including, but not limited to, universities, community colleges and technology centers, that will expand students' opportunities for educational success through high quality instructional programming. These cooperative innovative high school programs shall target:

**(1)** High school students who are at risk of dropping out of school before attaining a high school diploma; or

**(2)** High school students who would benefit from accelerated academic instruction.

**(b)** All cooperative innovative high school programs established under this chapter shall:

**(1)** Prepare students adequately for future learning in the workforce or in an institution of higher education;

**(2)** Expand students' educational opportunities within the public school system;

**(3)** Be centered on the core academic standards represented by the preparatory pathway as defined by the state board of education that will adequately prepare the student to enter postsecondary education or the workplace without academic remediation;

**(4)** Encourage the cooperative or shared use of resources, personnel and facilities between public schools and postsecondary institutions;

**(5)** Integrate and emphasize both academic and technical skills necessary for students to be successful in a more demanding and changing workplace;

**(6)** Emphasize parental involvement and provide consistent counseling, advising and parent conferencing at the secondary level so that parents and students can make responsible decisions regarding course taking and can track the students' academic progress and success;

**(7)** Be held accountable for meeting measurable student achievement results as established by the state board of education, the University of Tennessee system, and the Tennessee board of regents;

**(8)** Encourage the use of different and innovative teaching methods;

**(9)** Establish joint institutional responsibility and accountability for support of students and their success;

**(10)** Effectively utilize existing funding sources for high school, college, university and career and technical programs and actively pursue new funding from other sources;

**(11)** Develop methods for early identification of potential participating students in the middle grades through high school; and

**(12)** Reduce the percentage of students needing remedial courses upon their initial entry from high school into a postsecondary institution.

**(c)** Programs developed under this chapter that target students who are at risk of dropping out

of high school before attaining a high school diploma shall:

**(1)** Provide these students with the opportunity to graduate from high school possessing the core academic skills needed for postsecondary education and high-skilled employment;

**(2)** Enable students to complete a technical or academic program in a field that is in high demand and has high wages;

**(3)** Set and achieve goals that significantly reduce dropout rates and raise high school and college retention, certification and degree completion rates; and

**(4)** Enable students who complete these programs to pass employer exams, if applicable.

**(d)** Cooperative innovative high school programs that offer accelerated learning programs shall:

**(1)** Provide a flexible, customized program of instruction for students who would benefit from accelerated, higher level coursework or early graduation from high school;

**(2)** Enable students to obtain a high school diploma in less than four (4) years, to begin or complete an associate degree program, to master a certificate or diploma in a career or technical program or to earn up to two (2) years of postsecondary credit; and

**(3)** Offer a college preparatory academic core and in-depth studies in a career or technical field that will lead to advanced programs or employment opportunities in engineering, health sciences or teaching.

**(e)** Cooperative innovative high school programs may include, but shall not be limited to, the creation of a school within a school, a technical high school or a high school or technical center located on the campus of a postsecondary institution.

(f) Students shall be eligible to attend these programs as early as the ninth grade.

[Acts 2007, ch. 459, § 1.]

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**T.C.A. 49-1-207** gives LEAs authority to develop innovative educational programs, and allows the commissioner to waive any state rule to facilitate such programs:

**49-1-207. Innovative educational programs. —**

(a) The commissioner of education may authorize up to twenty-four (24) school systems or any part thereof to operate as innovative educational programs that emphasize school-based decision making and the creation of small learning communities. Upon authorization of the local board of education, the director of schools on behalf of the school system or the principal on behalf of an individual public school may apply to the commissioner to operate the system or school in accordance with an alternative plan approved under this section by the commissioner. The principal may be authorized by the principal's performance contract to develop such a plan. Prior to application, the principal shall consult with the principal's faculty. Subject to the implementation and funding of the relevant federal program, additional individual schools that emphasize school-based decision making may be approved.

(b) The schools and systems shall be distributed throughout the state and not concentrated in any grand division. The commissioner has the discretion to approve the entire alternative plan or any part of it.

(c) (1) The commissioner, in the commissioner's discretion, is authorized to waive any rules and regulations necessary to accommodate the implementation of a local plan. In exercising such discretion, the commissioner shall consider whether the proposed waiver will improve the educational opportunities and performance of the subject students by the application of a nonconventional curriculum and operational methods in innovative school programs developed by the use of local initiative and decision making.

(2) In these alternative programs, the commissioner may waive certain rules and regulations,

including, but not limited to, regulations relative to reporting requirements and premium pay for educators, without giving rise to any contractual right to such pay.

(3) The commissioner of education shall only be authorized to waive regulations relative to health and safety after consultation with either the commissioner of health or the state fire marshal, or both, as appropriate. The commissioner of health or the state fire marshal, as appropriate, must determine that the proposed waiver does not constitute a threat to the health and safety of students and staff and must notify the commissioner of education in writing of such determination.

(d) No local plan approved by the commissioner of education shall reduce the level of state funding to an LEA under this title.

(e) At any time before the end of an approved alternative plan, the school principal on behalf of the principal's school or the local board of education acting through the director of schools may elect to terminate the alternative program and to return to operation under all applicable rules and regulations. The principal or the director of schools shall provide thirty (30) days' notice to the commissioner of an intent to withdraw from the alternative program.

(f) A local school board shall comply with the open meetings law, compiled in title 8, chapter 44, when it considers any alternative plan under this section.

(g) This section shall not be construed to impact agreements negotiated under the Educational Professional Negotiations Act, compiled in chapter 5, part 6 of this title.

(h) A school operating an innovative education program in accordance with this section is not a charter school and cannot convert to a charter school after being authorized under this section to conduct an innovative education program.

[Acts 1990, ch. 648, § 1; 2004, ch. 832, §§ 5, 6, 7.]

**T.C.A. 49-13-134 encourages LEAs to pursue non-charter innovative schools using federal funding.**

**49-13-134. Establishment of non-charter public schools of innovation. —**

LEAs in which there exist charter schools or in which charter schools are proposed to be created are strongly encouraged to establish non-charter public schools of innovation using federal funding that is available for such purpose. Such non-charter public schools shall be designed to function as a control group to enable the effectiveness of charter schools to be more adequately assessed through comparative evaluations.

## Tennessee Race to the Top – Appendix F-2-3

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### COMMUNITY COLLABORATION ON CHARTER SCHOOLS

In Tennessee, unlike in many other regions in the country, the conversation around charter schools has shifted from one about competition to one about partnership. Our large urban LEAs have begun to view charters as strategic partners and valuable tools for serving students and areas that have historically struggled with academic achievement. We expect that the collaboration between LEAs, charter operators, and state agencies will significantly increase over the grant period, and that partnerships will become more formalized.

- In Memphis:
  - Seven charter schools have been started by community development corporations or youth development non-profits, with support from the philanthropic and business community.
  - Tennessee’s first charter school was launched by the Memphis Bioworks Foundation (an economic engine for Memphis in the biosciences), with the goal of preparing more of our students for careers in science and engineering.
  - A south Memphis charter school was incubated by a music foundation, The Soulsville Foundation, to not only create a college preparatory environment, but also to enable students to appreciate and participate in the city’s rich musical heritage.
  - Three charter schools are taking advantage of underutilized space provided by the district.
- In Nashville:
  - A charter network was launched with the help of a highly successful network in Houston (YES College Prep), and with the help of a number of philanthropic and business leaders.
  - Another network was started from a youth development organization in partnership with community leaders.
  - The Mayor’s office in Nashville recently announced the launch of a charter incubator which will help attract talented, national charter operators to the city (as well as provide the needed support to models already in operation). Please see Appendix F-3-1.

- Metro Schools recently strengthened its charter office to take a more proactive approach in helping promising charter operators launch and sustain their organizations.
- The Tennessee Charter Schools Association (based in Nashville) has been in operation since 1998 and has continued to provide advocacy and grassroots support for better charter policies and regulations, and provide technical assistance to charter operators throughout the state.

### **MAYOR ANNOUNCES STATEWIDE CHARTER SCHOOL INCUBATOR**

**‘Center for Charter School Excellence in Tennessee’ to be developed by charter school expert from New Orleans**

**NASHVILLE, Tenn. (December 8, 2009) -**



Matt Candler, project manager for the Center for Charter School Excellence in Tennessee, behind the podium. To the right, Principal of KIPP Academy Randy Dowell and Nashville Mayor Karl Dean.

Mayor Karl Dean announced plans today to develop one of the nation’s first charter school incubators to operate statewide.

The incubator, named the Center for Charter School Excellence in Tennessee, will support and help fund the development of high-performing public charter schools in Metro Nashville, and expand to provide charter school incubation support in school districts across the state within three years.

“During the last State General Assembly, I, along with many others, strongly advocated for a state law that is more receptive to public charter schools,” Dean said. “The new law greatly expanded student eligibility for enrollment in charter schools and the number of charter schools allowed in Tennessee. We need to ensure that these schools are of the highest quality.”

Matt Candler, the former CEO of the successful charter school incubator New Schools for New Orleans, will lead the center’s startup as project manager. His work will include finding long-term leadership for the center.

“Matt is recognized as a leader in the field of public charter schools due to his longstanding work in New York City and New Orleans. His initial involvement will ensure the long-term success of the center,” Dean said.

Commissioner of the Tennessee Department of Education Dr. Tim Webb and Director of Metro Nashville Public Schools Dr. Jesse Register joined the mayor for today’s announcement and discussed the positive impact the center will have on education reform efforts in Nashville and Tennessee.

“Charter schools are an important partner in developing innovative practices and providing opportunities to serve low-performing students,” Webb said. “This incubator will help Nashville and the state deliver best practices to reform partners as we prepare all students to be college and career ready upon graduation.”

“We recognize the value of having high-quality and highly-effective charter schools that can help meet the diverse needs of students,” said Register. “By their very inception, charter schools require innovative and non-traditional instructional strategies and this incubator will help attract and build the very best not only for Nashville, but for districts across Tennessee.”

The center will partner with the national charter school development organization Building Excellent Schools to offer training through a year-long fellowship program for individuals seeking to become founders of high-performing public charter schools.

“Building Excellent Schools has developed a national reputation for creating excellent schools that prepare their kids for success in college,” Candler said. “The leaders they have trained are closing the achievement gap in dozens of schools across the country. We are honored to have them join us in the effort to close the achievement gap in Nashville and across Tennessee.”

The center will continue to provide support services for the new schools during their first year of operation, including interim assessments of student performance in all grades, governance training for board members, and operation and finance reviews.

In addition to supporting the development of public charter schools, the center will support the expansion of existing initiatives to improve teacher recruitment in Nashville.

“Great teachers are the backbone of any great school, so we will support Teach for America and The New Teacher Project as we build new schools, expanding their efforts in both our public charter and traditional schools,” Candler said.

To ensure its long-term viability, the center will be set up as an independent nonprofit organization. It will be initially funded through the Education First Fund of the Community Foundation of Middle Tennessee, which Dean established last year to provide private financial support for new education reform efforts in Nashville.

### **INNOVATIVE TEACHER COMPENSATION PROGRAMS**

#### Teacher Advancement Program (TAP)

Originally developed by the Milken Family Foundation and currently run by the National Institute for Excellence in Teaching, TAP provides opportunities for teachers to earn more money and develop skills while in the classroom, with the goal of recruiting and retaining more high-quality teachers. TAP includes four key components:

1. **Multiple Career Paths** – TAP includes master and mentor teacher positions, which require more skill and more peer group involvement, and which have higher salaries than regular career teacher positions. TAP allows teachers to advance in their careers while remaining in the classroom; previously, teachers could attain higher salaries only through moving into administrative positions.
2. **Ongoing, Applied Professional Growth** – TAP requires school schedules to include regular times for teachers to meet, mentor, plan, and discuss with each other.
3. **Instructionally Focused Accountability** – TAP teacher evaluation is based on TAP Teaching Skills, Knowledge, and Responsibility Standards and on the academic growth of students.
4. **Performance-Based Compensation** – TAP bases teacher salaries on teachers' roles and responsibilities, evaluations, and student achievement.

In collaboration with the Great Schools Partnership, Knox County Public Schools piloted TAP in three of its schools in 2006. Mentor and master teachers receive annual stipends of \$2,500 and \$6,000 respectively. To encourage professional growth, TAP requires teachers from the same grade level or subject to hold weekly collaborative planning meetings. Teachers can earn bonuses of up to \$3,500 a year based on their performance, which is determined by a combination of their supervisor's evaluation, their individual classroom student achievement gains, and their school-wide student achievement gains.

## The Benwood Initiative

“In the late 1990s, an independent think tank ranked all of the elementary and middle schools in Tennessee. Of 860 elementary schools, 9 of the 20 lowest-performing schools were in Hamilton County. These were urban schools enrolling minority children from low-income families. Virtually all of them qualified for the free- or reduced-lunch program.

Alarmed, the Benwood Foundation and the Public Education Foundation formed a partnership with Hamilton County schools, and the Benwood Initiative was launched in 2001. With a laser-like focus on literacy and teacher effectiveness, the effort has been funded by a \$5 million grant to PEF from the Benwood Foundation and a \$2.5 million match from PEF.

The results have been impressive.

- In the eight phase 1 “Benwood schools,” the percentage of third-graders passing the state reading exam jumped from 53% in 2003 to **78%** in 2008.
- In 2008, **72%** of Benwood (phase 1) third graders scored proficient or advanced in mathematics, up from 50% in 2003.
- Teacher retention improved steadily, and the credentials and experience of teachers in Benwood schools are now very similar to the rest of the district.

After seeing such strong results, the partners wanted to expand this success to benefit all schools in Hamilton County. To that end, the Benwood Foundation announced an additional \$7 million grant in July of 2007. These funds are continuing to support the work of the eight original Benwood Schools while also providing direct support for eight additional schools. And the lessons learned in all 16 Benwood schools are being spread throughout the County, thanks to networks of school leaders who meet year-round to share the best things happening in their schools.

### **Benwood Initiative: Results**

- Benwood (phase 1) fifth-graders saw even more dramatic improvements in math, with **91%** passing the state exam in 2008. This is a big jump from 57% in 2003 and suggests a significant benefit from the model classroom teachers who work in grades 4 and 5.
- Similarly, fifth-grade reading scores have jumped from 62% passing in 2003 to **89%** in 2008.
- After one year of planning, eight of the sixteen Benwood II schools earned “**A**”s in all four subjects measured by Tennessee's Value-Added Assessment System (TVAAS).
- **Twelve** of the sixteen schools saw increases in the percentage of students scoring **advanced** in reading/language arts, and nine schools increased the percentage of students scoring **advanced** in math.
- In 2006, the Benwood Initiative was featured on the PBS NewsHour by education reporter John Merrow. Merrow was so impressed by his interview with eight Benwood teachers that he posted a podcast of that interview on his own website, Learning Matters.
- The Benwood Initiative has also been highlighted and praised by Education Week, Reader's Digest, the Tennessee House of Representatives, National Education Writers Association, Education Trust, Catalyst Chicago, former U.S. Secretary of Education Rod Paige, and the Washington Post.”<sup>1</sup>

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<sup>1</sup> <http://www.pefchattanooga.org/tabid/64/Default.aspx>