Appendix 1: Letter from Governor Jim Doyle and State Superintendent Tony Evers; May 6, 2010

STATE OF WISCONSIN

May 6, 2010

Dear Colleague:

We are excited to invite you to participate in Wisconsin's Round Two Race to the Top application to the Department of Education Through the American Recovery and Reinvestment Act, President Obama and Congress provided $4.3 billion in competitive grant funding to states that move forward with innovations and reform in education. Over $3 billion in funding is available Round 2; Wisconsin's Round Two application will aim to secure up to $250 million of this amount. Round Two awards will be announced in September 2010.

In Fall 2009, and again just a few weeks ago, the Wisconsin Legislature passed bills to make Wisconsin both eligible and more competitive for the Race to the Top grants. Now our local school district leaders – school board members, superintendents, principals, teachers and other staff – need to prepare their district for participation in Wisconsin's grant application.

Over the past several months, we have carefully reviewed feedback from local school leaders, educators, stakeholders, legislators and the federal government. We also worked closely with statewide organizations that represent teachers, principals, administrators, school boards, CESA directors, school business officials, special education directors, higher education representatives and other key stakeholders to craft the framework for Wisconsin's Round Two application. We appreciate the commitment that all groups have shown in their collaborative efforts to make our application more competitive.

Enclosed is the Race to the Top district memorandum of understanding (MOU) that the federal government requires participating districts to sign as part of the state's Race to the Top grant application. The MOU provides a framework of collaboration between districts and the state, articulating the specific roles and responsibilities necessary to implement an approved Race to the Top grant.

The MOU is divided into two parts – Exhibit I and Exhibit II. To receive any Race to the Top funding, a district must agree to the activities in Exhibit I. Beloit, Green Bay, Kenosha, Madison, Milwaukee, and Racine are the only LEAs eligible to participate in Exhibit II. Under Exhibit II, these districts will receive additional funds for participating in the supplemental activities.

To be considered as an eligible participating local education agency (LEA) the MOU must be signed by the LEA superintendent or the president of the local school board, and LEAs should seek the signature of the local teachers' union leader or their authorized representative. To demonstrate broad commitment to the MOU, districts should seek to obtain signatures from all the aforementioned individuals. When all three parties sign the MOU, the state is awarded more points on the Race to the Top application and the LEA is in a better position to implement the reforms when the grant is awarded.

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The signed MOU must be returned to the Department of Public Instruction by 4:00 p.m. on Friday, May 21, 2010.

Please note that under the federal guidelines, a district that does not sign and submit the MOU by the deadline cannot be included as a participating LEA in Wisconsin's Race to the Top application and cannot be given an opportunity to participate once the award is received.

If Wisconsin is awarded Race to the Top grant funds, a participating LEA will have 90 days to finalize their work plan for their Race to the Top funds and submit that to the state. During this 90-day period, districts will have the right to review and reassess their scope of work in light of their Race to the Top local award. At this time, districts may also withdraw from the MOU and forgo their local award and participation in the Race to the Top program without penalty.

The State is applying for the maximum $250 million award; however, we cannot guarantee the exact level of funding the State may be provided to the state through Race to the Top. Please note that federal guidelines require that at least 50 percent of the state's total award will be distributed to participating LEAs through the Title I formula.

To ensure that districts have sufficient support to participate in the program, the State has eliminated the competitive grant program and allocated additional funds to create a funding floor so that each district will receive the greater of:

- Their share of Race to the Top funds based on the Title I formula;
- $100 per pupil; or
- $70,000 per district.

This adjustment will be made using the Race to the Top funds that may be distributed by the state through other means.

Attached to this letter is an estimate of Race to the Top funds by school district. This estimate includes the funding floor, and it assumes the state receives $250 million in Race to the Top funding and that all districts participate.

We hope all of you will complete the MOU and take part in this important initiative. We hope all of you will complete the MOU and take part in this important initiative. The Governor and State Superintendent will be conducting a webinar on **Monday, May 10th at noon** to discuss the MOU and answer questions. Further detail about this webinar will be sent to you soon.

Please contact Jeff Pertl, Policy Initiatives Advisor at the Department of Public Instruction, by email jeff.pertl@dpi.wi.gov or by phone 608/267-9232 or Nina Carlson, Senior Policy Advisor in the Governor's Office, by email nina.carlson@wisconsin.gov or by phone 608/266-3271 if you have any questions or concerns as we move forward with the Race to the Top opportunity.

Sincerely,

Jim Doyle
Governor

Tony Evers
State Superintendent

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Appendix 2: Participating LEA Memorandum of Understanding and Exhibit I – Preliminary Scope of Work; May 6, 2010

Participating LEA Memorandum of Understanding

This Memorandum of Understanding ("MOU") is entered into by and between the State of Wisconsin ("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.

The elements committed to in this MOU are intended to set forth the minimum requirements for participation in Race to the Top and are not intended as limitations. Participating LEAs are permitted to adopt locally developed requirements and standards in addition to those required by this MOU and any applicable Exhibit to the extent that these strategies do not conflict with federal or state law, collective bargaining agreements, or any requirement related to the Race to the Top grant program.

I. SCOPE OF WORK

Exhibit I outlines the State's proposed reform plans ("State Plan") that the Participating LEA is agreeing to implement.

Participating LEAs are authorized and encouraged to work collaboratively in consortia or with Cooperative Educational Service Agencies (CESAs) to develop and/or implement any or all requirements under Exhibit I.

If the State is awarded a Race to the Top grant in this funding round, Participating LEAs will be informed of their local award and asked to complete the Final Work Plan required by the U.S. Department of Education within 90 days. The Final Work Plan must be approved by an authorized LEA representative and the State Superintendent. Acceptance of a local award binds the LEA to the conditions agreed to in the MOU and the Final Work Plan.

Nothing in this Memorandum of Understanding shall be construed to alter or otherwise affect the rights, remedies, and procedures afforded school districts and school district employees under Federal, State, or local laws (including applicable regulations or court orders) or under the terms of collective bargaining agreements, memoranda of understanding, or other agreements between such employers and their employees.

The signature of the Local Teachers' Union Leader set forth below indicates support for the LEA's decision to be a Participating LEA and a commitment to discuss any relevant provisions in good faith. However, the signature provided and the Local Teachers' Union Leader's indication of support does not constitute an agreement by the Local Union to reopen or otherwise modify any existing collective bargaining agreement or waive its rights and protections under the Wisconsin Municipal Employment Relations Act. Any changes to the collective bargaining agreement made pursuant to this MOU shall be implemented only upon agreement of the LEA and the Local Union.

II. LEA GRANT PERIOD

The project period shall be up to 48 months.

III. 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 Exhibit I 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 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 Exhibit I of this agreement;

2. Distribute in a timely fashion 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;

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 the Participating 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 Participating LEA, or any of the enforcement measures that are detailed in 34 CFR section 80.43 including putting the Participating LEA on reimbursement payment status, temporarily withholding funds, or disallowing costs.

IV. 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 Work Plan to be attached to this MOU as Exhibit III 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 III the Participating 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 (Exhibits 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).

V. MODIFICATIONS

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

VI. 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.

VII. Exhibit I – Requirements for all Participating LEAs

Standards and Assessments

- Implement a curriculum aligned to the Common Core Standards in English language arts and mathematics.
- Implement the state's next generation summative and benchmark assessment system in reading and mathematics when it becomes available

Data Systems

- Implement a response to intervention model that provides diagnostic and progress assessments, core instruction to all students, differentiation strategies, and interventions in reading and mathematics.
- Use local and state-provided student growth data to set annual district and school achievement goals. Ensure regular principal and teacher review of local achievement data in professional learning communities or ensure cooperative planning time to continuously refine improvement strategies.
- Authorize the Department of Public Instruction (DPI) to share data collected from the Participating LEA with researchers as allowed under FERPA.

Great Teachers and Leaders

Measuring student growth

- Measure individual student growth over time using multiple measures that include formative assessments; standardized benchmark and summative tests; curriculum- and course-based assessments and individual student work (performances, projects, etc.)

Teacher and principal evaluation systems

- Under Wisconsin's Quality Educator Initiative (Wis. Admin. Code § PI 34) initial educators must establish and successfully execute a professional development plan, which must be reviewed by a professional development team comprised of a teacher, an administrator and a representative of a teacher training institution (IHE) to attain professional certification. DPI-trained team members must approve the goals.
- Ensure local principal and teacher evaluation systems include both formative and summative components.[i]
- Conduct annual formative and summative evaluations for probationary teachers as determined locally by applicable collective bargaining agreements, and for probationary principals.
- Conduct annual locally-determined formative evaluations, a summative evaluation in the first year, and a summative evaluation at least every third year thereafter for non-probationary teachers and principals. (Wis. Stat. § 121.02(1)(q))

- Implement improvement plans, which include annual summative evaluations, professional development, and classroom observations for principals and teachers rated as "unsatisfactory."

Use evaluations to inform key decisions

- Under Wisconsin's Quality Educator Initiative (Wis. Admin. Code § PI 34) initial educators who fail to satisfactorily complete a professional development plan (PDP) within five years are denied professional certification. The PDP approval process is based on planned professional growth and evidence of the effect of that growth on student learning.
- Use the results of formative evaluations to inform decision-making in the areas of coaching, induction support, and/or professional development
- **Optional Activities:** Use the results of formative evaluation systems to inform compensation, promotion or advancement decisions. *Participating LEAs may choose to implement none, some or all of these activities at their discretion and without penalty. LEAs should check the box for any item they wish to implement, or for any item already in place in the district.*
    - ☐ Opportunities to pursue advanced professional certifications for teachers and principals, including certification by the National Board for Professional Teaching Standards. *(Optional)*
    - ☐ Career ladders for promotion, additional compensation or advancement of teachers based on additional responsibilities and other qualifications. *(Optional)*
    - ☐ Career ladders for promotion, additional compensation or advancement of principals based on additional responsibilities or other qualifications. *(Optional)*
- Use the results of summative evaluation systems to inform decisions regarding non-probationary status for teachers and principals.
- Use the results of summative evaluation systems to inform non-renewal decisions.

Equitable distribution of teachers and principals

- Implement a district policy to ensure the equitable distribution of effective teachers and principals among schools within the LEA.
    - Measurement of principals and teachers will be based on qualifications, summative evaluations and experience.
    - Measurement of schools will include school-level student growth, achievement and demographic data.
    - Distribution analysis must compare high-poverty and high-minority schools relative to the district as a whole; as well as hard to staff subjects and specialty areas relative to all subject areas.

- If inequities in distribution exist, then the Participating LEA must perform a comprehensive review of policies and other constraints that prevent the recruitment, placement and retention of effective staff and implement strategies to address those barriers.
- Additionally, Participating LEAs must provide effective support to teachers and principals in those schools around improving student performance and qualifications. These supports may include professional learning communities, job-embedded professional development, and tuition reimbursement for license-related coursework.

High quality professional development

- Use local student data as well as district and school achievement goals to inform currently required professional development and coaching and mentoring programs.
- Provide regular common planning and collaboration time, which may include professional learning communities, to teachers and principals to support data usage and response to intervention efforts.
- Require additional, targeted professional development for principals and teachers rated as "unsatisfactory." Adopt a policy to measure and assess the effectiveness of professional development programs as well as district and school intervention relative to improvements in student achievement and staff evaluations.

Turning Around Struggling Schools

- Implement one of the four federally required school intervention models: turnaround model, restart model, school closure, or transformation in schools identified among the lowest-achieving five percent of Title I-eligible schools.
  (Based on Federal criteria, currently this only applies to 12 schools in the City of Milwaukee.)

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[i] Evaluation system definitions and description:

Formative Evaluations: Are not intended for disciplinary purposes but can inform professional development activities and may lead to the implementation of individual plans designed to improve performance and instruction. Formative evaluations include the following as significant factors:

- Student growth and achievement data that result from assessments in core academic subjects administered to pupils under Wis. Stat. § 118.30 and 20 USC 6311 (b) (3), provided the school board has developed a teacher evaluation plan through collective bargaining that includes all of the following:
  1) A description of the evaluation process.
  2) Multiple criteria in addition to examination results.
  3) The rationale for using examination results to evaluate teachers.
  4) An explanation of how the school board intends to use the evaluations to improve pupil academic achievement
- Evidence of student growth and achievement from locally developed assessments, portfolios of student work, grades, rigor of coursework (including dual enrollment, honors, AP or IB courses), and other measures deemed by the State to be rigorous and comparable across classrooms.
- Portfolio of teacher's work or instructional artifacts
- Classroom observations

Summative Evaluations: Per Wis. Stat. § 121.02(1)(q), conduct an evaluation in the first year and at least every third year thereafter to assess overall employment performance, which may be used for disciplinary purposes. This should include:

- A classroom observation
- A review of compliance with action steps created under the formative evaluations process.
- A review of compliance with district personnel policies
- Any other criteria allowed by State law.
- Multiple rating categories, which must include at a minimum "satisfactory" and "unsatisfactory."

If performance is unsatisfactory, then an improvement plan shall be implemented. Progressive disciplinary measures may be taken pursuant to district policy.

- Performance improvement plans must clearly articulate: the specific areas of improvement, time frame for the plan, and defined outcomes. Opportunities for improvement shall be offered, which may include ongoing observation, mentoring, ongoing conferences, modeling, and professional development. Career transition benefits may be offered to employees that voluntarily choose to leave their positions.

VIII. SIGNATURES

LEA Superintendent (or equivalent authorized signatory)**:**

_____

Signature/Date

_____

Print Name/Title

President of Local School Board:

_____

Signature/Date

_____

Print Name/Title

Local Teachers' Union Leader:

_____

Signature/Date

_____

Print Name/Title

Authorized State Official - required**:**

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

_____

Signature/Date

_____

Print Name/Title

Appendix A: Wisconsin Race to the Top – Overview of State Plan and MOU

Elements of State Reform Plan	State Commitments	Participating LEA
A. State Success Factors		
A(2) Building strong statewide capacity to implement, scale up, and sustain proposed plans		
(i) (a-c) Ensuring the capacity to implement	• The State will create the Office of Education Innovation and Improvement (OEII). ▪ Reporting to the State Superintendent, the OEII will be responsible for overseeing the execution of Wisconsin's Race to the Top plans, awarding and managing external contracts and ensuring the State's and LEA's compliance with the conditions outlined in the State's RTTT grant and LEA Final Work Plans. ▪ Additionally, the OEII will be charged with providing statewide expertise and support to LEAs to advance the federal education reform agenda requirements the areas of standards and assessments, data systems, effective teachers and leaders, and turning around struggling schools. ▪ The office will include project management and administration staff housed in Madison and project consultants working regionally with each CESA. • The State will secure external mechanisms to measure and report on Race to the Top progress. ▪ The Wisconsin DOA, in consultation with the Wisconsin Office of Recovery and Reinvestment, Wisconsin DPI, and the OEII will contract with an outside accountability/audit/consulting firm or firms to externally measure and report on an annual basis the State's and LEAs' progress with and compliance to the conditions and goals outlined in the State's Race to the Top grant and LEAs' Final Work Plans. ▪ Outside entities may also be used in the 90 day period to ensure that the correct resources, capacity, and capabilities are leveraged by the State during this critical period in order to guarantee that the Final Work Plans are specific, measurable, achievable, realistic, and time bound, and are in line with the RTTT guidelines for ambitious yet achievable plans for implementing coherent, compelling, and comprehensive education reform. • The State will augment the Wisconsin Initiative for Neighborhoods and Schools that Work for Children (WINS), a Milwaukee philanthropic effort. WINS will provide holistic, data-driven wraparound services, including healthcare access, early childhood, education and child care, to students in two Milwaukee neighborhoods.	No action required.
B. Standards and Assessments		

Elements of State Reform Plan	State Commitments	Participating LEA
(B)(1) Developing and adopting common standards		
(i) Participating in consortium developing high quality standards	• The State will adopt the English Language Arts Common Core Standards and the Mathematics Common Core Standards. • The State, as a leading member of the SMARTER/Balanced assessment consortium, will involve Wisconsin educators in developing model curriculum and units of instruction for each grade level, reflecting a learning progression for the Common Core Standards.	*No action required. See B(3)*
(ii) Adopting standards		*No action required. See B(3)*
(B)(2) Developing and implementing common, high-quality assessments	• The State, as part of the SMARTER/Balanced assessment consortium, will develop a common statewide benchmark assessment accessible through a shared computer-based format to gauge student progress on the Common Core Standards throughout the school year.	*No action required. See B(3)*
(B)(3) Supporting the transition to enhanced standards and high-quality assessments	• The State, in collaboration with the SMARTER/Balanced assessment consortium, will develop online resources to include model curriculum, model units of instruction, classroom assessment strategies, and video classroom vignettes. • The State will support professional development through a combination of local and regional professional learning communities, summer institutes, and online training modules and networking. • The State is working with postsecondary institutions and national research partners, including the National Center for the Improvement of Educational Assessment, Inc. (NCIEA), the Wisconsin Center for Education Research (WCER) and the Value-Added Research Center (VARC) on improving the quality of student growth data and related professional development to LEAs.	• Implement a curriculum aligned to the Common Core Standards in English language arts and mathematics. • Implement the state's next generation summative and benchmark assessment system in reading and mathematics when it becomes available
C. Data Systems		
(C)(1) Fully implementing a statewide longitudinal data system	• The State meets 10 of the 12 requirements of the America COMPETES Act. • Per State Fiscal Stabilization Fund (SFSF) conditions, the State will meet all 12 requirements of the American COMPETES Act by September 30, 2011.	• Complete new data collection and reporting required under the America COMPETES Act.

Elements of State Reform Plan	State Commitments	Participating LEA
(C)(2) Accessing and using State data	• The State provides a public reporting portal for education data through the Wisconsin Information Network for Successful Schools (WINSS). • The State LDS provides secure access to the Multidimensional Analytic Tool (MDAT), which allows teachers and principals to review annual individual student growth data combined with attendance, discipline and other key student indicators. • The State established a P-16 data exchange and is incorporating postsecondary enrollment data from the National Student Clearinghouse.	*No action required.*
(C)(3) Using data to improve instruction		
(i) Use of local instructional improvement systems	• The State will rapidly expand and scale the statewide Response to Intervention (RtI) Center, tripling the capacity to coordinate and provide technical assistance, professional development and data coaching services to LEAs and CESAs. • The State will expand individual student growth data currently available through the LDS by enhancing the Multidimensional Analytic Tool (MDAT) and incorporating the "Colorado growth" system into the LDS by 2011. • The State will provide financial support to VARC to expand district participation and training in value-added analysis.	• Implement a response to intervention model that provides diagnostic and progress assessments, core instruction to all students, differentiation strategies, and interventions in reading and mathematics. • Use local and state-provided student growth data to set annual district and school achievement goals. Ensure regular principal and teacher review of local achievement data in professional learning communities or ensure cooperative planning time to continuously refine improvement strategies.
(ii) Professional development on use of data	• The State will work with key stakeholders to develop professional development modules and tools around data literacy and using data to improve instruction. • Professional development and training will be delivered by the State as well as regional CESAs, professional organizations, and non-profit organizations to provide educators the professional face-to-face training they need to utilize student growth and value-added data reports in the classroom to improve instruction.	• *See (D)(5)(i)*

Elements of State Reform Plan	State Commitments	Participating LEA
(iii) Availability and accessibility of data to researchers	• Pursuant to 2009 Wisconsin Act 59, the Department of Public Instruction, University of Wisconsin System, Wisconsin Technical College System and the Wisconsin Association of Independent Colleges and Universities established a PK-16 data exchange to facilitate greater program evaluation and educational research. ▪ An enabling memorandum of understanding has established data exchange protocols to effectuate the legislation. ▪ Additionally, a data management position was established to coordinate research requests across agencies, facilitate data exchanges, serve as a point of contact for external research partners, and review FERPA-related concerns. • Under the pending ARRA state longitudinal data system grant, the State will implement a robust online teacher licensure system that will more accurately and efficiently link student coursework, teachers and preparation programs, significantly improving research and program evaluation. • The online teacher licensure system will enable DPI to assess and verify the equitable distribution of teachers and principals by school and subject (see (D)(3)) • The State will convene a Data Summit to outline a research agenda for the year and discuss best practices with a wide group of stakeholders and researchers, and will work collaboratively to provide a wide range of data as allowed under FERPA to researchers whose research projects are selected by the state as complementary to that agenda.	• Authorize the Department of Public Instruction to share data collected from the Participating LEA with researchers as allowed under FERPA.
D. Great Teachers & Leaders		
(D)(1) Provide high-quality pathways for aspiring teachers and principals	• Under Wis. Stat. § 115.28 (7), the State Superintendent is given authority to prescribe rule standards and procedures for approval of educator preparation programs leading to licensure. Alternative route programs are specifically prescribed in Wis. Admin. Code § PI 34.17 (6). • Candidates for alternative certification must complete the Praxis I and II exam as well as a clinical experience, per Wis. Stat. § 118.19 (3). • The State supports 11 alternative certification programs, which focus on critical shortage areas and increasing the diversity of the state's teachers.	*No action required.*
(D)(2) Improving teacher and principal effectiveness based on performance:		

Appendix A: Wisconsin Race to the Top – Overview of State Plan and MOU

Elements of State Reform Plan	State Commitments	Participating LEA
(i) Measure student growth	• The State will provide individual student growth data through the state longitudinal data system and support statewide access to value-added data through VARC. • The State, in conjunction with key stakeholders, will establish parameters for local measures of student growth, which may be locally developed or commercially purchased, that are rigorous and comparable across classrooms.	• Measure individual student growth over time using multiple measures that include formative assessments; standardized benchmark and summative tests; curriculum- and course-based assessments and individual student work (performances, projects, etc.)

Elements of State Reform Plan	State Commitments	Participating LEA
(ii) Design and implement evaluation systems	Pilot a Preservice Evaluation • The State will participate in a national partnership to develop and pilot a preservice teacher performance assessment (TPA) tool with a rating scale to be used during the student teaching clinical experience. Educator preparation programs will be able to use this tool to endorse candidates for state licensure. Develop a Model Evaluation System • The state, in conjunction with key stakeholders, will develop and pilot a rigorous, transparent and fair model evaluation system for teachers and principals that will: ▪ Include multiple criteria such as standardized assessments in core academic subjects, locally developed assessments, grades, portfolios of student work, rigor of coursework (including dual enrollment, honor, AP or IB courses), and other measures deemed by the state to be rigorous and comparable across classrooms. ▪ Include student growth as a significant factor. ▪ Establish multiple rating categories for principal and teacher evaluation. ▪ Be based on Wisconsin Educator Standards, the National Board Certification and the Wisconsin Master Educator Assessment Process. ▪ Be aligned with Wisconsin's next generation assessment system. Tiered Licensing Requirements The State has a tiered licensing system under Wis. Admin. Code § PI 34. • **Initial educator license:** This is a five-year, non-renewal initial license. Initial educators are provided with a qualified mentor, support seminars and an ongoing orientation by the employing school district. ▪ *Advancement:* Successfully complete a minimum of three years as an initial educator period and complete a professional development plan (PDP) that demonstrates increased proficiency, evidence of student learning, evidence of collaboration and is aligned with State standards. • **Professional educator license:** This is a five year renewable license. ▪ *Renewal:* Successfully complete a professional development plan that demonstrates increased proficiency, evidence of student learning, evidence of collaboration and is aligned with State standards. • **Master educator license:** This is a ten year renewable license for educators based on the National Board for Professional Teaching Standards certification or the Wisconsin Master Educator Assessment Process.	• Ensure local principals and teachers evaluation systems have both formative and summative components. Participating LEAs are encouraged to align local systems to the State-developed standards or adopt the model evaluation system. *Definitions* **Formative Evaluations:** Are not intended for disciplinary purposes but can inform professional development activities and may lead to the implementation of individual plans designed to improve performance and instruction. Formative evaluations include the following as significant factors: • Student growth and achievement data that result from assessments in core academic subjects administered to pupils under Wis. Stat. § 118.30 and 20 USC 6311 (b) (3), provided the school board has developed a teacher evaluation plan through collective bargaining that includes all of the following: 1) A description of the evaluation process 2) Multiple criteria in addition to examination results 3) The rationale for using examination results to evaluate teachers 4) An explanation of how the school board intends to use the evaluations to improve pupil academic achievement • Evidence of student growth and achievement from locally developed assessments, portfolios of student work, grades, rigor of coursework (including dual enrollment, honors, AP or IB courses), and other measures deemed by the State to be rigorous and comparable across classrooms • Portfolio of teacher's work or instructional artifacts • Classroom observations **Summative Evaluations:** Per Wis. Stat. § 121.02(1)(q), conduct an evaluation in the first year and at least every third year thereafter to assess overall employment performance, which may be used for disciplinary purposes. This should include: • A classroom observation • A review of compliance with action steps created under the formative evaluations process • A review of compliance with district personnel policies • Multiple rating categories, which must include at a minimum "satisfactory" and "unsatisfactory" If performance is unsatisfactory, then an improvement plan shall be implemented. Progressive disciplinary measures may be taken pursuant to district policy.. Performance improvement plans must clearly articulate: the specific areas of improvement, time frame for the plan, and defined outcomes. Opportunities for improvement shall be offered, which may include ongoing observation, mentoring, ongoing conferences, modeling, and professional development. Career transition benefits may be offered to employees that voluntarily choose to leave their positions.

Elements of State Reform Plan	State Commitments	Participating LEA
(iii) Conduct annual evaluations	• Wis. Stat. § 121.02(1)(q) and Wis. Admin. Code § PI 8.01(2)(q) establishes specific criteria and a systematic procedure to measure the performance of licensed school personnel. ▪ An observation of the individual's performance must be included as part of the summative evaluation data. ▪ A summative evaluation must be conducted in the first year of employment and at least every third year.	• Under Wisconsin's Quality Educator Initiative (Wis. Admin. Code § PI 34) initial educators must establish and successfully execute a professional development plan, which must be reviewed by a professional development team comprised of a teacher, an administrator and a representative of a teacher training institution (IHE) to attain professional certification. DPI-trained team members must approve the goals. • Conduct annual formative and summative evaluations for probationary teachers as determined locally by applicable collective bargaining agreements, and for probationary principals. • Conduct annual locally-determined formative evaluations, a summative evaluation in the first year, and a summative evaluation at least every third year thereafter for non-probationary teachers and principals. (Wis. Stat. § 121.02(1)(q)) • Implement improvement plans, which include annual summative evaluations, professional development, and classroom observations for principals and teachers rated as "unsatisfactory."
(iv)(a) Use evaluations to inform professional development	*No action required.*	• Use the results of formative evaluations to inform decision-making in the areas of coaching, induction support, and/or professional development
(iv)(b) Use evaluations to inform compensation, promotion, and retention	*No action required.*	• **Optional Activities:** Use the results of formative evaluation systems to inform compensation, promotion or advancement decisions. *Participating LEAs may choose to implement none, some or all of these activities at their discretion and without penalty. LEAs should check the box for any item they wish to implement, or for any item already in place in the district.* ☐ Opportunities to pursue advanced professional certifications for teachers and principals, including certification by the National Board for Professional Teaching Standards. *(Optional)* ☐ Career ladders for promotion, additional compensation or advancement of teachers based on additional responsibilities and other qualifications. *(Optional)* ☐ Career ladders for promotion, additional compensation or advancement of principals based on additional responsibilities or other qualifications. *(Optional)*

Elements of State Reform Plan	State Commitments	Participating LEA
(iv)(c) Use evaluations to inform tenure and/or full certification	*No action required.*	• Under Wisconsin's Quality Educator Initiative (Wis. Admin. Code § PI 34) initial educators who fail to satisfactorily complete a professional development plan (PDP) within five years are denied professional certification. The PDP approval process is based on planned professional growth and evidence of the effect of that growth on student learning. • Use the results of summative evaluation systems to inform decision regarding non-probationary status for teachers and principals.
(iv)(d) Use evaluations to inform removal	*No action required.*	• Use the results of summative evaluation systems to inform non-renewal decisions.
(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 including mathematics, science, and special education, and language instruction educational programs	• The State will use the proposed online teacher licensure system to assess and verify the equitable distribution of teachers and principals by school and subject. • Provide additional support to the University of Wisconsin System's Urban Educator Institute to expand the placement of preservice teachers from across the state in urban centers for their student teaching clinical experience. • The State supports educator recruitment and placement by posting on the Department of Public Instruction webpage: ▪ Educator vacancies in Wisconsin; ▪ Educator loan deferment and forgiveness programs; and ▪ Master educator information.	• Implement a district policy to ensure the equitable distribution of effective teachers and principals among schools within the LEA. ▪ Measurement of principals and teachers will be based on qualifications, summative evaluations and experience. ▪ Measurement of schools will include school-level student growth, achievement and demographic data. ▪ Distribution analysis must compare high-poverty and high-minority schools relative to the district as a whole; as well as hard to staff subjects and specialty areas relative to all subject areas. • If inequities in distribution exist, then the Participating LEA must perform a comprehensive review of policies and other constraints that prevent the recruitment, placement and retention of effective staff and implement strategies to address those barriers. • Additionally, Participating LEAs must provide effective support to teachers and principals in those schools around improving student performance and qualifications. These supports may include professional learning communities, job-embedded professional development, and tuition reimbursement for license-related coursework

Elements of State Reform Plan	State Commitments	Participating LEA
(D)(4) Ensuring the effectiveness of teacher and principal preparation programs	• Under Wis. Admin. Code § PI 34.06(3)(a), postsecondary education preparation programs are required to participate in a continuous review process, which includes annual visits. Program evaluation and approval is based on candidate performance measured against state standards and student achievement/growth. • Under Wis. Admin. Code § PI 34.15(8), postsecondary educator preparation programs are required to conduct follow up studies with graduates and their employers on program effectiveness and student achievement/growth and then use that data for improvement. This data is also used by the State as part of the preparation program approval process.	*No action required.*
(D)(5) Providing effective support to teachers and principals:		
(i) Quality professional development	• The State, in conjunction with key stakeholders, will develop mentor and coaching guidelines as well as best practices to improve effectiveness. • The State will provide high quality coaching and mentoring resources and tools around principal and teacher effectiveness. • The State will provide direct mentor and coaching training and support, including mentor academies and coaching institutes.	• Use local student data as well as district and school achievement goals to inform currently required professional development and coaching and mentoring programs. • Provide regular common planning and collaboration time, which may include professional learning communities, to teachers and principals to support data usage and response to intervention efforts. • Provide additional, targeted professional development for principals and teachers rated as "unsatisfactory."
(ii) Measure effectiveness of professional development	• Annually review the effectiveness of state-sponsored professional development programs, which may include third-party assessments, participant evaluations and LEA assessments of principal and staff improvement.	• Adopt a policy to measure and assess the effectiveness of professional development programs as well as district and school intervention relative to improvements in student achievement and staff evaluations.

E. Turning Around Struggling Schools: ***The following Section (E) only applies to the Milwaukee Public Schools, which encompasses all of the identified lowest-achieving schools.***		
(E)(1) Intervening in the lowest-achieving schools and LEAs	The State derives authority to intervene in the lowest-achieving schools and LEAs from: • State Superintendent intervention authority under 2010 Wisconsin Act 215 • Federal Corrective Action Requirements under Elementary and Secondary Education Act (ESEA) • Federal School Improvement Grant requirements	No action required.
(E)(2) Turning around the lowest-achieving schools		
(i) Identifying the persistently lowest-achieving schools	• Per the federal SFSF and School Improvement Grant requirements, the State has implemented a methodology for identifying the persistently lowest-achieving schools. Currently, all schools are located in the Milwaukee Public Schools.	No action required.
(ii) Turning around the persistently lowest-achieving schools	• The State will work with MPS to align requirements under the School Improvement Grant program, the ESEA-required corrective action plan and new state requirements pursuant to 2010 Wisconsin Act 215 to maintain a focused, coherent approach to school and district turnaround in Milwaukee.	• Implement one of the four federally required school intervention models: turnaround model, restart model, school closure, or transformation in schools identified among the lowest-achieving five percent of Title I eligible schools. (Based on Federal criteria, currently this only applies to 12 schools in the City of Milwaukee.)
Competitive Preference Priority: STEM		
	• The OEII will create a working group to coordinate STEM efforts around the state, strengthen ties with regional economic development partners and higher education stakeholders to align STEM efforts around higher education and workforce need as well as to promote best practices within Wisconsin schools. • The OEII will contract with educational institutions, professional organizations and/or non-profit organizations to provide STEM teacher and learning academies on site and via virtual learning opportunities throughout the state. • The OEII will work with educational institutions, professional organizations and/or non-profit organizations to develop and provide resources and partnerships that drive STEM best practices through support of pilot projects, teacher development, and STEM instructional materials. These efforts will be coordinated with the STEM academies and ensure the long term sustainability of these enhanced STEM initiatives.	No action required.

Exhibit I, Appendix B – Proposed Base Funding

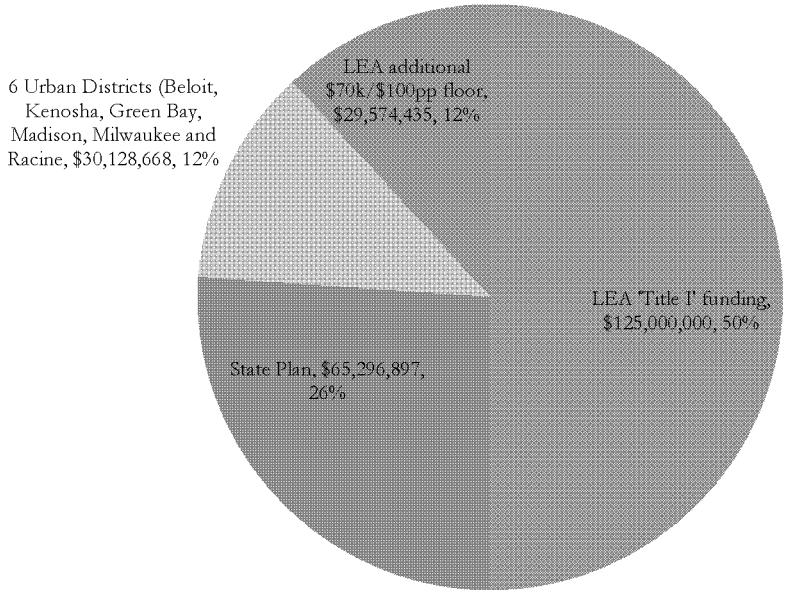

Figure 1. Overview of Wisconsin's RTTT Budget

The table below provides general guidance as to the base funding amount that the Participating LEA may receive upon successful award of the total funding amount requested by the State of Wisconsin. No less than 50% of all Wisconsin Race to the Top funds will be distributed via this formula. Participating school district funding amounts may be increased in the event that not all eligible districts opt in to participate. Additionally, this base amount of funding does not reflect additional discretionary funding that may be awarded to districts.

Assumptions:

(1) all LEAs participate,

(2) the State is awarded $250 million, and

(3) each participating district receives a minimum of $70,000 or $100 per pupil, or the allocation under the Title I formula, whichever is the greatest amount.

Note: This table does not include additional funding allocated to the six urban districts (Beloit, Kenosha, Green Bay, Madison, Milwaukee, and Racine)

School District/LEA	Estimated Minimum Local Award (based on the Title I formula and $70k / $100 per pupil minimums)
21st Century Preparatory School	$100,960
Abbotsford	$70,000
Academy of Learning & Leadership	$258,097
Adams-Friendship Area	$327,255
Albany	$70,000
Algoma	$70,000
Alma	$70,000
Alma Center	$70,565
Almond-Bancroft	$70,000
Altoona	$150,200
Amery	$173,600
Antigo	$379,752
Appleton Area	$1,523,500
Arcadia	$103,400
Argyle	$70,000
Arrowhead UHS	$223,200
Ashland	$347,361
Ashwaubenon	$310,300
Athens	$70,000
Auburndale	$90,900
Augusta	$321,596
Baldwin-Woodville Area	$155,400

Bangor	$70,000
Baraboo	$298,100
Barneveld	$70,000
Barron Area	$141,952
Bayfield	$99,571
Beaver Dam	$357,300
Beecher-Dunbar-Pembine	$70,000
Belleville	$95,300
Belmont Community	$70,000
Beloit	$1,400,720
Beloit Turner	$164,033
Benton	$70,000
Berlin Area	$162,800
Big Foot UHS	$70,000
Birchwood	$70,000
Black Hawk	$70,000
Black River Falls	$189,800
Blair-Taylor	$132,414
Bloomer	$111,600
Bonduel	$90,088
Boscobel Area	$90,000
Bowler	$103,253
Boyceville Community	$78,800
Brighton #1	$70,000

Brillion	$95,700
Bristol #1	$70,000
Brodhead	$113,800
Brown Deer	$180,700
Bruce	$87,983
Bruce Guadalupe	$185,589
Burlington Area	$361,200
Business and Economics Academy	$385,781
Butternut	$70,000
Cadott Community	$90,634
Cambria-Friesland	$70,000
Cambridge	$90,000
Cameron	$94,400
Campbellsport	$147,000
Capitol West Academy	$77,084
Cashton	$293,882
Cassville	$74,279
Cedar Grove-Belgium Area	$110,000
Cedarburg	$308,000
Central City Cyberschool	$206,359
Central/Westosha UHS	$123,500
Chequamegon	$137,593
Chetek	$115,907
Chilton	$121,600

Chippewa Falls Area	$501,200
Clayton	$70,743
Clear Lake	$70,000
Clinton Community	$125,800
Clintonville	$157,200
Cochrane-Fountain City	$70,000
Colby	$171,207
Coleman	$76,539
Colfax	$84,300
Columbus	$118,500
Cornell	$70,000
Crandon	$177,609
Crivitz	$105,012
Cuba City	$70,000
Cudahy	$269,328
Cumberland	$111,000
D C Everest Area	$567,600
Darlington Community	$79,429
Darrell Lynn Hines Academy	$138,935
De Forest Area	$326,700
De Pere	$373,700
De Soto Area	$70,000
Deerfield Community	$79,100
Delavan-Darien	$261,591

Denmark	$152,900
Dodgeland	$81,700
Dodgeville	$136,800
Dover #1	$70,000
Downtown Montessori	$70,000
Drummond Area	$96,351
Durand	$128,202
East Troy Community	$176,000
Eau Claire Area	$1,073,000
Edgar	$70,000
Edgerton	$189,000
Elcho	$70,000
Eleva-Strum	$70,000
Elk Mound Area	$109,300
Elkhart Lake-Glenbeulah	$70,000
Elkhorn Area	$302,900
Ellsworth Community	$170,500
Elmbrook	$736,300
Elmwood	$70,000
Erin	$70,000
Evansville Community	$183,100
Fall Creek	$86,300
Fall River	$70,000
Fennimore Community	$116,518

Flambeau	$106,817
Florence	$70,000
Fond du Lac	$744,800
Fontana J8	$70,000
Fort Atkinson	$288,300
Fox Point J2	$92,700
Franklin Public	$415,100
Frederic	$77,492
Freedom Area	$159,300
Friess Lake	$70,000
Galesville-Ettrick-Trempealeau	$145,600
Geneva J4	$70,000
Genoa City J2	$70,000
Germantown	$398,500
Gibraltar Area	$70,000
Gillett	$70,300
Gilman	$78,532
Gilmanton	$70,000
Glendale-River Hills	$98,900
Glenwood City	$71,200
Goodman-Armstrong	$70,000
Grafton	$220,500
Granton Area	$124,963
Grantsburg	$136,800

Green Bay Area	$3,903,936
Green Lake	$70,000
Greendale	$263,600
Greenfield	$331,100
Greenwood	$104,852
Gresham	$70,000
Hamilton	$443,900
Hartford J1	$163,400
Hartford UHS	$161,500
Hartland-Lakeside J3	$143,700
Hayward Community	$378,277
Herman #22	$70,000
Highland	$70,000
Hilbert	$70,000
Hillsboro	$199,163
Holmen	$363,700
Horicon	$84,800
Hortonville	$332,700
Howards Grove	$98,900
Howard-Suamico	$528,800
Hudson	$535,700
Hurley	$70,000
Hustisford	$70,000
Independence	$70,000

Inland Seas School of Expeditionary Lrng	$70,000
Iola-Scandinavia	$77,400
Iowa-Grant	$77,100
Ithaca	$70,000
Janesville	$1,056,200
Jefferson	$188,400
Johnson Creek	$70,000
Juda	$70,000
Kaukauna Area	$398,900
Kenosha	$3,458,011
Kettle Moraine	$428,700
Kewaskum	$205,000
Kewaunee	$103,000
Kickapoo Area	$70,188
Kiel Area	$149,000
Kimberly Area	$445,800
Kohler	$70,000
La Crosse	$1,171,861
La Farge	$86,448
Lac du Flambeau #1	$129,404
Ladysmith-Hawkins	$133,852
Lake Country	$70,000
Lake Geneva J1	$209,300
Lake Geneva-Genoa City UHS	$137,000

Lake Holcombe	$70,000
Lake Mills Area	$132,800
Lakeland UHS	$88,300
Lancaster Community	$94,800
Laona	$70,000
Lena	$70,000
Linn J4	$70,000
Linn J6	$70,000
Little Chute Area	$238,807
Lodi	$163,900
Lomira	$109,700
Loyal	$143,544
Luck	$70,000
Luxemburg-Casco	$191,700
Madison Metropolitan	$4,089,396
Manawa	$96,036
Manitowoc	$591,545
Maple	$166,311
Maple Dale-Indian Hill	$70,000
Marathon City	$70,000
Marinette	$224,500
Marion	$70,000
Markesan	$131,371
Marshall	$126,000

Marshfield	$409,100
Mauston	$193,145
Mayville	$116,100
McFarland	$214,700
Medford Area	$212,300
Mellen	$70,000
Melrose-Mindoro	$71,500
Menasha	$368,700
Menominee Indian	$556,679
Menomonee Falls	$457,300
Menomonie Area	$325,700
Mequon-Thiensville	$375,400
Mercer	$70,000
Merrill Area	$308,400
Merton Community	$105,300
Middleton-Cross Plains	$589,800
Milton	$329,300
Milwaukee	$56,028,024
Milwaukee Academy of Science	$489,076
Milwaukee College Preparatory School	$236,577
Milwaukee Renaissance Academy	$70,000
Mineral Point	$78,700
Minocqua J1	$82,165
Mishicot	$99,400

Mondovi	$116,974
Monona Grove	$306,700
Monroe	$293,700
Montello	$73,600
Monticello	$70,000
Mosinee	$217,400
Mount Horeb Area	$232,700
Mukwonago	$504,400
Muskego-Norway	$488,700
Necedah Area	$80,300
Neenah	$628,900
Neillsville	$106,900
Nekoosa	$133,800
Neosho J3	$70,000
New Auburn	$74,018
New Berlin	$479,400
New Glarus	$88,200
New Holstein	$113,300
New Lisbon	$109,151
New London	$239,700
New Richmond	$297,000
Niagara	$70,000
Nicolet UHS	$119,600
Norris	$70,000

North Cape	$70,000
North Crawford	$92,241
North Fond du Lac	$126,500
North Lake	$70,000
North Lakeland	$70,000
Northern Ozaukee	$185,300
Northland Pines	$141,000
Northwood	$78,550
Norwalk-Ontario-Wilton	$132,994
Norway J7	$70,000
Oak Creek-Franklin	$599,400
Oakfield	$70,000
Oconomowoc Area	$472,700
Oconto	$118,100
Oconto Falls	$193,300
Omro	$131,100
Onalaska	$294,700
Oostburg	$101,400
Oregon	$362,300
Osceola	$188,500
Oshkosh Area	$1,032,900
Osseo-Fairchild	$100,000
Owen-Withee	$122,630
Palmyra-Eagle Area	$117,500

Pardeeville Area	$90,500
Paris J1	$70,000
Parkview	$103,200
Pecatonica Area	$70,000
Pepin Area	$70,000
Peshtigo	$121,900
Pewaukee	$240,600
Phelps	$70,000
Phillips	$90,000
Pittsville	$87,842
Platteville	$176,316
Plum City	$70,000
Plymouth	$242,300
Port Edwards	$70,000
Port Washington-Saukville	$268,600
Portage Community	$263,700
Potosi	$70,000
Poynette	$109,000
Prairie du Chien Area	$158,145
Prairie Farm	$70,000
Prentice	$74,736
Prescott	$129,500
Princeton	$70,000
Pulaski Community	$368,700

Racine	$4,509,757
Randall J1	$73,900
Randolph	$70,000
Random Lake	$92,900
Raymond #14	$70,000
Reedsburg	$255,900
Reedsville	$70,000
Rhinelander	$272,000
Rib Lake	$70,000
Rice Lake Area	$239,500
Richfield J1	$70,000
Richland	$183,483
Richmond	$70,000
Rio Community	$70,000
Ripon Area	$182,900
River Falls	$301,800
River Ridge	$70,000
River Valley	$137,400
Riverdale	$103,898
Rosendale-Brandon	$103,500
Rosholt	$70,000
Royall	$215,849
Rubicon J6	$70,000
Saint Croix Central	$130,300

Saint Croix Falls	$111,600
Saint Francis	$133,000
Salem	$102,900
Sauk Prairie	$269,300
School for Early Development and	$70,000
Seeds of Health Elementary Program	$208,676
Seneca	$70,000
Sevastopol	$73,105
Seymour Community	$247,300
Sharon J11	$70,000
Shawano	$251,700
Sheboygan Area	$1,033,500
Sheboygan Falls	$178,800
Shell Lake	$70,000
Shiocton	$76,900
Shorewood	$194,800
Shullsburg	$70,000
Silver Lake J1	$70,000
Siren	$103,419
Slinger	$291,600
Solon Springs	$70,000
Somerset	$160,200
South Milwaukee	$333,300
South Shore	$70,000

Southern Door County	$121,300
Southwestern Wisconsin	$70,000
Sparta Area	$260,963
Spencer	$74,700
Spooner Area	$171,596
Spring Valley	$74,900
Stanley-Boyd Area	$158,408
Stevens Point Area	$750,700
Stockbridge	$70,000
Stone Bank	$70,000
Stoughton Area	$341,000
Stratford	$83,800
Sturgeon Bay	$124,300
Sun Prairie Area	$617,100
Superior	$792,318
Suring	$90,520
Swallow	$70,000
Tenor High School	$91,805
Thorp	$100,942
Three Lakes	$70,000
Tigerton	$70,000
Tomah Area	$460,568
Tomahawk	$146,400
Tomorrow River	$94,200

Trevor-Wilmot Consolidated	$70,000
Tri-County Area	$75,591
Turtle Lake	$70,000
Twin Lakes #4	$70,000
Two Rivers	$187,500
Union Grove J1	$74,900
Union Grove UHS	$83,300
Unity	$109,000
Valders Area	$108,900
Verona Area	$467,100
Viroqua Area	$233,040
Wabeno Area	$70,000
Walworth J1	$70,000
Washburn	$70,000
Washington	$70,000
Washington-Caldwell	$70,000
Waterford Graded J1	$161,000
Waterford UHS	$109,100
Waterloo	$83,800
Watertown	$389,200
Waukesha	$1,299,000
Waunakee Community	$352,900
Waupaca	$264,446
Waupun	$202,200

Wausau	$1,016,214
Wausaukee	$129,531
Wautoma Area	$201,861
Wauwatosa	$681,100
Wauzeka-Steuben	$70,000
Webster	$101,813
West Allis	$979,780
West Bend	$691,700
West De Pere	$266,700
West Salem	$164,800
Westby Area	$203,980
Westfield	$217,911
Weston	$130,158
Weyauwega-Fremont	$96,400
Weyerhaeuser Area	$70,000
Wheatland J1	$70,000
White Lake	$70,000
Whitefish Bay	$293,900
Whitehall	$126,318
Whitewater	$204,100
Whitnall	$241,000
Wild Rose	$91,059
Williams Bay	$70,000
Wilmot UHS	$116,500

Winneconne Community	$155,800
Winter	$70,000
Wisconsin Dells	$167,972
Wisconsin Heights	$86,200
Wisconsin Rapids	$565,400
Wittenberg-Birnamwood	$131,982
Wonewoc-Union Center	$70,000
Woodlands School	$70,000
Woodruff J1	$70,000
Wrightstown Community	$130,900
YMCA Young Leaders Academy	$324,431
Yorkville J2	$70,000
State of Wisconsin	**$154,574,435**

Appendix 3: Exhibit II: Addressing WI's Achievement Gap – Ensuring Every Child is Prepared for Success

Exhibit II – Addressing WI's Achievement Gap – Ensuring Every Child is Prepared for Success

Exhibit II - applicable to only Beloit, Green Bay, Kenosha, Madison, Milwaukee and Racine - describes the additional requirements that applicable participating LEAs under Exhibit I may agree to in exchange for additional funds. There shall be no penalty for any applicable LEA choosing not to participate in Exhibit II other than ineligibility for Exhibit II funds under Race to the Top. Exhibits I and II require separate signatures; however, eligibility for Exhibit II is conditional on participation in Exhibit I.

Exhibit II will make additional funds available for Beloit, Green Bay, Kenosha, Madison, Milwaukee and Racine school districts. These additional funds will demonstrate that the districts are committed to increasing their efforts to close the achievement gap and improve student achievement in line with the broader State Plan and goals of increasing student achievement, closing the achievement gap, increasing high school graduation rates[1] and increasing college enrollment rates[2].

If Wisconsin receives the maximum amount of $250 million that the State is requesting from the United States Department of Education in its Race to the Top Application, LEAs participating in Exhibit II will receive, at a minimum, an additional $166 per pupil. These funds are above and beyond the LEA funding for Exhibit I.

Required Goals for Participation

All participating LEAs that accept funds under Exhibit II must identify clear, measurable, data-driven, achievable goals in their Race to the Top Final Work Plan. These goals must be benchmarked for the district and individual school(s), tailored to address specific achievement challenges in the district and may build upon existing LEA goals and strategies. Metrics for evaluating progress must include, but are not limited to, value-added achievement data and measures of student growth, which may be provided through the State Longitudinal Data System.

With any remaining resources, districts may use funds to complete or expand their Exhibit I scope of work, or to meet or initiate additional innovative, data proven projects 'above and beyond' Exhibits I and II that are focused on increasing student achievement, closing the achievement gap, increasing high school graduation rates and/or increasing college enrollment rates. If proposed by the LEA and agreed by the State, such additional initiatives will be encapsulated in the LEAs Final Work Plan in addition to the LEAs existing commitments as outlined in Exhibit I of the MOU.

The LEA Final Work Plan will identify how the elements and strategies from Exhibit I, Exhibit II and any additional new work (where applicable) will be used to meet these benchmarked goals. Accepting these funds does not alter any of the terms or conditions of the Race to the Top District Memorandum of Understanding (MOU).

Specifics on the process for development and approval of the Final Work Plan will be provided to you once Wisconsin has been notified of any award under its Race to the Top application.

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[1] Federal Race to the Top guidelines defines high school graduation rate at the four-year or extended-year adjusted cohort graduation rate. Wisconsin is currently transitioning to this new definition, which will likely be completed by July 2011. For at least three years beginning in 2010-11, the State and LEAs may track graduation rates and set goals using both the existing and revised methods in order to analyze trend data.

[2] Federal Race to the Top guidelines defines college enrollment as students who enroll in an institution of higher education within 16 months of graduation.

Exhibit II – Strategies

- Unless otherwise noted, the Beloit, Green Bay, Kenosha, Madison and Racine school districts must adopt at least one strategy in each area. Milwaukee must select two strategies in each area.
- District must submit a program plan/narrative as part of the 90 day work plan period to demonstrate how their choices will be implemented or scaled up
- When submitting the program plan, district must demonstrate that a significant number of eligible students in the district will be impacted by the strategies chosen (i.e. not a pilot program)
- The Office of Educational Innovation and Improvement will work with districts to ensure that implementation plans will be effective

1. Early Childhood Initiatives

Quality early childhood education programs are proven to help children, especially those at risk, to be more successful academically in the future.

Provide quality learning experiences for four year olds:

- ☐ Implement 4K for all eligible children in the district, expand current 4K models to community settings with childcare/HeadStart or reduce 4K class size in existing program.
- ☐ Implement appropriate early childhood curriculum aligned with Wisconsin Early Learning Standards that includes training on curriculum.
- ☐ Implement family literacy programs for families with children from birth to 4 that include English language and/or native language support, parenting and literacy strategies, and materials for parents.

2. Student Achievement Support In Transition Years (for at-risk or minority populations)

Research shows that academic supports, such as additional learning time, in transition years can decrease drop out rates and improve student achievement. Additionally, modifying school structures to better support students in transition periods can decrease drop out rates and improve student achievement.

- ☐ Academic supports provided by licensed teachers to tutor 9th grade students, who are below proficiency in a state or local assessment, either one-on-one or in groups of no more than five.
- ☐ Create a team of teachers for 9th grade with at least one hour per week of collaborative time to plan instructional improvements.
- ☐ Provide summer programs to help students transition from 8th grade to 9th grade.
- ☐ Design and implement school strategies for increasing parental engagement to improve student achievement or reduce dropouts specific to the needs of the students and community population.
- ☐ 'Scale-up' an existing district initiative with proven track record of success.
    - If your district already has a successful student achievement support or dropout prevention program in place, and you wish to use RTTT funds to 'scale-up' that program, you may select this option; the district program plan submitted to OEII for review must document the previous success of the program in increasing student achievement for minority and/or at-risk populations and or/reducing the number of dropouts.

3. College and Career Readiness

All districts are required to select the first strategy "Require three years of mathematics and science for high school graduation." Furthermore the Beloit, Green Bay, Kenosha, Madison and Racine school districts must adopt at least one additional strategy and Milwaukee must adopt at least two additional strategies.

- ☒ Require three years of mathematics and science for high school graduation *(required)*
- ☐ Provide opportunities for teachers to participate in STEM training and incorporate STEM instruction in the classroom.
- ☐ Provide opportunities for students to participate in career academies.
- ☐ 'Scale-up' a different existing district initiative with proven track record of success.
    - o If your district already has a successful college and career readiness program in place, and you wish to use RTTT funds to 'scale-up' that program, you may select this option; the district program plan submitted to OEII for review must document the previous success of the program in at making eligible district students more college and/or career ready.

Agreement to Exhibit II:		
For the Participating LEA		**For the State**
Authorized LEA Signature/Date		**Authorized State Signature/Date**
Print Name/Title		**Print Name/Title**

Appendix 4: Overview of Support for Rural Districts

The Wisconsin Rural Initiative

The Wisconsin Rural Initiative is designed to provide additional capacity building support to Wisconsin's rural initiatives. The project covered under this initiative will allow rural districts to implement projects that have substantial start-up costs that rural districts cannot fund but low marginal costs in the long run. These initiatives fall into the following four areas described in more detail below: Local Data Systems, School-Based Math and Reading Coaches, Curriculum Development, and STEM Programming.

Emphasis on local data systems:

Across the state of Wisconsin there are several data systems in place. Rural schools also have differing data systems. Some are more sophisticated than others. Often the selection decision is based on finances. One of the critical pieces of implementation for any local data system that attempts to serve multiple needs is standardization of what should be the data points to be measured. At present, this standardization has not been done across the state. That might be a great first step at the state level.

After such standardization occurs, developing local data systems in common would be easier and less expensive. Much of the heavy lifting in this area, will require centralization and agreement between the many parties who have a stake in what occurs. Until that occurs we can only guess at needs on a CESA by CESA basis.

Each CESA would need at least a part-time professional staff member to do the staff development and training activities on local data systems. It is possible that activities could be done in a shared relationship between two agencies that are geographically close and have similar demographics.

*Multi-CESA $145,000

Emphasis on school-based coaches for reading and math:

Though school-based coaches have been shown to support increased test scores and have been successful, particularly among boys, finding and supporting such professionals in rural communities has been difficult. In addition to fiscal limitations, most of the people who have the background and skills needed to work with classroom teachers, parents and others are very hard to find. Often such professionals wish to stay near urban areas where their social and family needs can be met.

To devise a plan addressing school-based coaching would require someone who could assess what is being done, plan what still needs to be done, develop relationships with those teaching and evaluating the delivered service. There are models to make implementation steps more clear but again we come to the resource issue. Where would we find those professionals? How can we get them to move to rural communities? How can we pay for their expertise? Do we develop our own?

One way of bypassing the above questions is to train our own employees to do this work. That would require funding for training, travel, salaries, fringes, equipment, work space and support services.

*Multi-CESA $240,000

Emphasis on curriculum development:

The development of quality curriculum is an important portion of any effort to change education in a positive way. There have been many conversations over the years regarding what constitutes a quality curriculum and how a quality curriculum can be disseminated across the country. Regardless of what one thinks of a "national curriculum" the limitations of locally devised documents are many. Often work done locally is put in the beautiful binders and placed on the shelf. Classroom teachers then go back to teaching what they've always taught which may or may not be on target with regard to what students need to know because there are no resources for follow-up implementation.

One of the critical needs in the race the top is a comprehensive discussion is what is a quality curriculum? That follows with helping to make sure it is adopted (or adapted) locally. Once it is locally defined, from what is developed at the state level, or on the regional or national stage, additional questions remain: what will be tested? what teaching resources are available? what follow-up will be done?.

Unfortunately in rural schools, these are discussions that almost never take place. There is no money, few staffing resources and little agreement on what constitutes a quality curriculum. Also, seldom is there collaboration between districts in the development of such materials. Actually, much local curriculum is really driven by textbooks from major textbook companies that likely do not contemplate local issues.

To make true curriculum development work in rural schools, will require resources to define what quality curriculum entails, work with school districts on a common format, look at whatever national or regional agreements have been made and develop relationships that would accomplish this task. It would make sense that putting together CESA base programs would assure continuity, congruence and excellence in product. We believe that local school districts do want quality curriculum and this program would allow them to look hard at what they do and ensure that what they do next is right. The need is for resources in staff and to do this are staff to do the needed review and training as well as costs for travel, substitute teachers and consultants.

*Multiple CESA $185,000

Emphasis on STEM programming

STEM programming is touted as a critical element in the future competitiveness of American business. Math and science are at the base of most business research and

development being done in the US and around the world. Small rural schools are often faced with difficulty when seeking out teaching staff to assign to STEM activities. Also, finding lab and instructional materials in these important areas can be expensive to secure in our present economic environment. Finally, STEM is a process that requires significant training and a commitment to that initiative.

Staff development, consultant training, travel and other costs make centralizing the development of STEM initiatives critical. Though the development of a STEM Academy in rural areas of the state would be ideal, there is no reason why a systematic approach to change in math and science instruction wouldn't have benefit for the boys and girls taught in our schools. In addition to developing or cooperative relationships with two and four-year colleges could lead to more students selecting to add engineering to their education program. Some of those folks might then be the next generation teaching students what is needed in the competitive world we live in.

There are not many folks with training to teach STEM programming (and that number is declining due to retirements and other more remunerative opportunities). Seeking well trained folks or developing them locally, will require providing them with proper support for training, mentoring, job coaching and the like. This would be an important part of our initiative in rural Wisconsin. This could also connect rather well with our need to develop local entrepreneurs to provide jobs in our communities. Stemming the flow of young people leaving rural communities for better opportunities in urban/suburban centers is at the center of the present hollowing out of rural Wisconsin. We must give our rural folks resources to address the need for quality education and jobs.

*Multi CESA $195,000

Appendix 5: State Reform Plan Overview

Wisconsin Race to the Top – State Plan Overview

The Wisconsin State Plan is based on the four Race to the Top education reform areas that districts will be required to address in their Final Work Plan and Science, Technology, Engineering, and Mathematics (STEM) efforts.

Wisconsin's focus within our Race to the Top application will be on achieving significant improvement in the following areas:

- Increase student achievement;
- Decrease achievement gaps;
- Increase high school graduation rates;
- Prepare students for careers and college, and increase postsecondary enrollments; and
- Ensure state, CESA, and district capacity to implement and sustain reform.

The following overview summarizes the key priority efforts and projects that the State will manage to support the efforts of participating districts and drive education reform in Wisconsin.

(A) Overall Commitment-State Success Factors

Ensure that the State has adequate capacity, resources and control to effectively manage and implement the RTTT plans (in collaboration with the LEAs) as well as internal and external mechanisms that will drive accountability of successful management and implementation of the RTTT plans by the State and participating LEAS, through regular measurement and reporting of the State's and LEA's progress with and compliance to the conditions and goals outlined in the State's RTTT grant and LEAs final work plans.

i. Create the Office of Education Innovation and Improvement (OEII)

Reporting to the State Superintendent, the Office of Education Innovation and Improvement (OEII) will be responsible for overseeing the execution of Wisconsin's Race to the Top (RTTT) plans, awarding and managing external contracts (as specified throughout the State plan) and ensuring the State's and LEA's compliance with the conditions outlined in the State's RTTT grant and Local Education Agency's (LEA) final work plans.

Additionally, the OEII will be charged with providing statewide expertise and support to LEAs as they implement federal education reform agenda requirements related to: standards and assessments, data systems, great teachers and leaders, and turning around the lowest-achieving schools. If needed, the OEII will also assist districts in modifying actions as needed to ensure implemented reforms lead to successful outcomes.

The OEII will include project management and administration staff housed in Madison and project consultants working regionally with each Cooperative Educational Service Agency (CESA).

ii. Augment the Wisconsin Initiative for Neighborhoods and Schools that Work for Children

The State will augment the Wisconsin Initiative for Neighborhoods and Schools that Work for Children (WINS), a Milwaukee philanthropic effort. WINS will provide holistic, data-driven wraparound services, including healthcare access, early childhood education and child care, to students in two Milwaukee neighborhoods.

iii. Expand the statewide Response to Intervention (RtI) Center

The State will support local implementation of response to intervention (RtI) district efforts by expanding the statewide RtI Center, housed in CESA 5. In addition to scaling up current RtI efforts, the statewide RtI Center will provide technical assistance and professional development throughout the state, directly engaging districts and schools around their RtI efforts. Finally, the RtI Center will be involved in and support the RtI statewide summit and academies.

iv. Provide Support to Rural CESAs

The State will offer targeted support to CESAs serving rural areas (CESAs 3, 4, 8, 9 and 12), ensuring that these smaller districts have the capacity to implement RTTT reforms. These supports will include multi-CESA funding that provides additional emphasis on local data systems, school-based coaches for reading and math, curriculum development, and STEM programming.

v. External mechanisms to measure and report on RTTT progress

The Wisconsin DOA, in consultation with the Wisconsin Office of Recovery and Reinvestment, Wisconsin DPI, and the OEII will contract with an outside accountability/audit/consulting firm or firms to externally measure and report on an annual basis the State's and LEA's progress with and compliance to the conditions and goals outlined in the State's RTTT grant and LEA's final work plan.

Outside entities may also be utilized during the initial 90-day workplan period to ensure that the correct resources, capacity and capabilities are leveraged by the State during this critical period in order to guarantee that districts' final workplans are specific, measurable, achievable, realistic, time bound and in line with the RTTT ethos of ambitious yet achievable plans for implementing coherent, compelling, and comprehensive education reform.

(B) Standards & Assessments

Ensure the transition to internationally-benchmarked standards, the capability to implement curricula supporting these standards, and extensive professional development in support of both. Ensure the implementation of a robust statewide assessment system capable of measuring student growth and that LEAs have local assessment systems that accurately measure student performance and feed information back to principals, teachers, students and parents in a timely fashion.

i. Adopt the Common Core Standards and develop related curriculum and units of instruction.

The State will adopt the English language arts Common Core Standards and the Mathematics Common Core Standards. The State, as a leading member of the SMARTER Balanced Assessment Consortium, a multi-state consortium, will involve Wisconsin educators in developing model curriculum and units of instruction for each grade level, reflecting a learning progression for the Common Core Standards.

ii. Develop and implement a common benchmark assessment.

The State, as part of the SMARTER Balanced Assessment Consortium, will develop a common statewide benchmark assessment accessible through a shared computer-based format to gauge student progress on the Common Core Standards throughout the school year.

iii. Provide professional development and online resources.

The State, in collaboration with the SMARTER Balanced Assessment Consortium, will develop online resources to include model curriculum, model units of instruction, and video classroom vignettes that are accessible to all districts.

The State will support high-quality professional development through a combination of local and regional professional learning communities, summer institutes, and online training modules and networking.

The State is working with postsecondary institutions and national research partners, including the National Center for the Improvement of Educational Assessment, Inc., the Wisconsin Center for Education Research (WCER), and the Value-Added Research Center (VARC) on improving the quality of student growth data and related professional development to LEAs, and to provide LEAs with individual student growth data.

(C) Data

Ensure that LEAs know how to use data to meaningfully inform instructional improvement and assist districts in the development of additional benchmark assessments. Develop an annual research agenda around student and school performance, and partner and share data with researchers whose work addresses this agenda.

i. Provide professional development modules and training around data use to improve instruction

The WDPI will work with educational institutions, professional organizations or non-profit organizations to develop and provide professional development modules, tools, and administrator training in data literacy in order to create and drive regional expertise in data usage as well as promote best practices.

The WDPI will work with the CESAs, professional organizations or non-profit organizations to provide educators the professional development tools and face-to-face training they need to utilize student growth and value-added data reports in the classroom to improve instruction, while the LEAs will provide adequate resources and support to ensure that teachers and principals are able to attend professional development and to ensure that data usage, new processes and best practices are implemented in the classroom.

ii. Expand the State's public reporting portal for education data

The State currently provides a public reporting portal for education data through the Wisconsin Information Network for Successful Schools (WINSS).

Through the state LDS, the State will expand access to assessment reports that show student/group growth over time, which may include value-added data.

The State will provide support to the Value-Added Research Center (VARC) at the University of Wisconsin's Wisconsin Center for Education Research (WCER) to expand district participation in growth reporting or value-added analysis around the current summative assessment and/or pilot new value-added benchmark assessments and growth reporting work.

The State will develop the GOALS online dashboard of student data and curriculum modules to inform instructional improvement efforts.

The State will develop eLearning Porfolios for students and parents to access student performance data, so that they are active partners in student success.

The State will create a data manager position to consider, respond to, and manage requests for data from outside research groups.

The State, in consultation with external researchers and stakeholders, will develop an annual research agenda around student and school performance. Working through the state's education data manager, the state will contract with researchers to share state student level data with researchers whose work addresses research questions that complement the state's annual agenda.

(D) Effective Teachers and Principals

Provide structures and resources that will increase teacher and principal effectiveness and set standards for high-quality teacher and principal evaluations.

i. Develop mentor and coaching guidelines and best practices to improve effectiveness.

The WDPI will work with educational institutions, CESAs, professional organizations or non-profit organizations to build on existing efforts to develop and provide high quality mentoring guidelines that ensure high quality programs and best practices for new teachers and new principals. These guidelines and best practices will include: coaching and mentoring strategies, guidelines for length and quality of coaching and mentoring, coach and mentor recruitment and selection tools, and coaching and mentor training curricula.

ii. Provide high quality coaching and mentoring resources and tools for principal and teacher effectiveness.

The WDPI, with input from teachers and principals, will work with educational institutions, CESAs, professional organizations or non-profit organizations to create and provide professional development modules, tools and administrator training around principal and teacher effectiveness. These tools will be based on the best practices and methods of evaluating and supporting teachers and principals in high-gain urban and rural Wisconsin schools previously identified under (D)i.

iii. Provide and support mentor academies

The WDPI will work with educational institutions, CESAs, professional organizations or non-profit organizations to provide mentor academies throughout the state, using the guidelines, best practices, resources and tools (including professional development modules) already developed under (D)i and (D)ii.

iv. Provide and support coach institutes

The WDPI will work with educational institutions, CESAs, professional organizations or

non-profit organizations to provide coaching institutes throughout the state, using the guidelines, best practices, resources and tools (including professional development modules) already developed under (D)i and (D)ii.

v. Develop and pilot a model evaluation system

The WDPI will develop and pilot a model evaluation system for teachers based on Wisconsin Educator Standards, aligned with the National Board Certification and the Wisconsin Master Educator Assessment Process, using student growth as a significant factor. This model evaluation system may include: growth models, classroom observations, principal evaluations, analysis of classroom artifacts, teacher portfolios, teacher self-reports of practice, and multi-student achievement measures. The system will include both formative and summative components. This evaluation system will be developed in conjunction with educational institutions, professional organizations and teachers and principals from districts across the state.

The WDPI will develop and pilot a model evaluation system for principals based on the Wisconsin Educator Standards, aligned with the National Board Certification and the Wisconsin Master Educator Assessment Process, and with an emphasis on student growth. The model will also incorporate the work completed under the Wisconsin Urban School Leadership Project and Leadership for Learning, two grants Wisconsin received from the Wallace Foundation. This model evaluation system may include: growth models, school observations, site visits, supervisor evaluations, analysis of school artifacts, principal portfolios, principal self-reports of practice, and multi student achievement measures. This system will include both a formative and a summative component. This evaluation system will be developed in conjunction with educational institutions, professional organizations and teachers and principals from districts across the state.

vi. Develop a pre-service teacher performance assessment tool

The State currently participates in a ten state partnership created by the Council of Chief State School Officers (CCSSO) and the American Association of Colleges of Teacher Education (AACTE) to develop and pilot a teacher performance assessment tool to be used by educator preparation programs during the student teaching clinical experience. Results from this performance assessment will be used by teacher preparation programs to endorse candidates for state licensure.

Currently, WDPI along with Alverno College, the University of Wisconsin-Madison, and the University of Wisconsin-Eau Claire are field testing embedded assessment components and will use their students to field test the full assessment. The project is fully funded by AACTE up to the final phase of implementation. RTTT funding will assist Wisconsin in completing the final phase of implementation by accelerating the field testing and expanding access to educator preparation programs statewide.

Through RTTT the state will also scale this successful pilot to include all teacher

preparation programs across the state. Once implemented, the tool will allow all preparation programs to comprehensively ensure pre-service teacher effectiveness, which the state will support through annual training to ensure that the tools remain valid and reliable across candidates.

vii. Expand the Institute for Urban Education

The State will provide funding for the University of Wisconsin System's Institute for Urban Education to expand the placement of preservice teachers from across the state in urban centers for their student teaching clinical experience.

To address the equitable distribution of teachers statewide, the OEII will provide funding to support programs that recruit prospective secondary and postsecondary students and/or current teachers to work in urban setting, high need core subject areas and special education.

(E) Turning Around the Lowest Achieving Schools

Effectively turnaround the lowest achieving 5% of Title I-eligible schools in the State of Wisconsin, delivering dramatically improved student achievement in a condensed time scale in these struggling schools.

i. Funding for resources to implement turnaround strategies in the lowest-achieving schools (currently all located within MPS)

The OEII will provide turnaround specialists who will be dedicated to supporting local administrators in implementing turnaround strategies in struggling schools, initially focused on the twelve lowest performing schools (currently all located within MPS), with the responsibility of dramatically improving student achievement in a condensed time scale. Resources (including internal and/or external consultants) will be dual-selected/mutually agreed upon by the State and the participating LEA(s).

(F) STEM

Build on existing strengths in STEM and continue to strengthen STEM education across Wisconsin, focused mainly on the participation of women and minorities in STEM subjects.

i. Create a working group to coordinate STEM efforts around the state and promote best practices within schools

The State will create a State Superintendent's STEM Advisory Council that includes representation from schools, technical colleges, universities and technology business partners. This Advisory Council will serve to coordinate efforts around the state to strengthen ties with regional economic development partners and higher education stakeholders, aligning STEM efforts around higher education and workforce needs, as well as promoting best practices within Wisconsin schools. The Advisory Council, in consultation with the education research community, will identify and promote high quality curricula and innovative education techniques, serve as a coordinating body for developing STEM standards and assessments, and be a channel of communication for integrating the efforts of school districts, businesses, and higher education institutions.

ii. Strengthen ties with business and higher education institutions to tie curricula to standards and needs in higher education and the workforce

Through the STEM Advisory Council the state will help facilitate contacts between LEA staff and the business and higher education institutions in their communities to develop additional support and collaborative efforts around improving the training and education of students for particular fields and areas of study.

iii. Establish STEM academies.

The OEII will establish STEM academies in collaboration with LEAs, postsecondary institutions, and regional economic development partners to provide high school programming to students both on site and via virtual learning options. Academy staff will model innovative STEM curriculum and instructional strategies and Wisconsin teachers will participate on site and via technology in the development of model units of instruction and professional development.

iv. Support initiatives to drive STEM best practices.

The OEII, in collaboration with professional organizations and educational institutions, will develop and provide the resources and initiatives to bring best practices in STEM curriculum, instruction, and assessment to classrooms across Wisconsin. The State will support expansion of high-quality STEM instruction to populations currently

underrepresented in STEM fields through increased funding for STEM grants to participating LEAs. These grants will enable LEAs to expand the most effective STEM programs to new sites, increase Advanced Placement course taking, and support undergraduate science and mathematics majors to enter teaching.

Appendix 6: NAEP Achievement Data and Goals

scoring proficient and above on the Grade 4 Reading NAEP. * Indicates data is not available.

All Students				Students with Disabilities					English Language Learners					Economically Disadvantaged					Black						
% asic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic
.2%	26.0%	6.6%	32.6%	181	77.1%	5.4%	1.1%	6.5%	199	61.9%	9.3%	1.0%	10.3%	205	49.8%	15.0%	2.6%	17.6%	200	58.0%	10.7%	1.9%	12.5%	209	46.5%
.8%	26.0%	7.1%	33.1%	189	70.6%	7.0%	1.6%	8.6%	202	58.0%	11.5%	2.1%	13.6%	204	52.4%	13.8%	2.1%	15.9%	194	66.2%	9.0%	0.6%	9.6%	208	50.7%
.6%	27.4%	8.2%	35.6%	191	62.6%	11.0%	3.0%	14.0%	201	57.7%	9.3%	1.0%	10.4%	205	49.3%	15.2%	2.7%	17.9%	191	64.7%	8.8%	2.1%	10.9%	208	50.4%
.6%	29.3%	9.4%	38.4%	200	53.3%	14.7%	4.6%	18.9%	211	47.9%	12.3%	2.2%	14.0%	209	44.2%	17.1%	3.2%	20.2%	197	57.8%	11.5%	2.9%	14.0%	213	43.7%
.5%	31.1%	10.6%	41.1%	210	44.1%	18.3%	6.2%	23.8%	221	38.1%	15.4%	3.4%	17.6%	214	39.1%	19.1%	3.8%	22.5%	203	50.9%	14.1%	3.7%	17.2%	219	37.1%

scoring proficient and above on the Grade 8 Reading NAEP. * Indicates data is not available.

All Students				Students with Disabilities					English Language Learners					Economically Disadvantaged					Black						
% asic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic
.8%	33.5%	3.0%	36.5%	226	69.5%	3.7%	0.3%	4.0%	*	*	*	*	*	244	47.1%	15.4%	1.1%	16.5%	234	60.2%	7.4%	0.1%	8.0%	244	48.7%
.4%	31.5%	3.4%	34.9%	230	64.4%	5.9%	0.1%	6.0%	*	*	*	*	*	249	41.0%	18.3%	0.9%	19.2%	236	55.8%	8.5%	0.3%	9.0%	247	42.6%
.1%	30.6%	2.6%	33.2%	221	72.6%	2.9%	0.3%	3.3%	243	46.1%	11.0%	0.0%	11.0%	246	43.4%	15.0%	0.7%	15.6%	231	60.4%	7.3%	0.7%	8.0%	247	41.7%
.1%	31.9%	2.8%	34.4%	226	66.4%	5.2%	0.6%	5.7%	247	40.9%	12.3%	0.2%	12.4%	249	39.7%	16.8%	0.9%	17.5%	234	56.8%	9.2%	1.0%	10.2%	253	35.1%
.2%	33.2%	3.0%	35.7%	232	60.3%	7.5%	1.0%	8.2%	251	35.8%	13.7%	0.4%	13.8%	252	36.0%	18.7%	1.1%	19.5%	237	53.3%	11.2%	1.3%	12.3%	258	28.6%

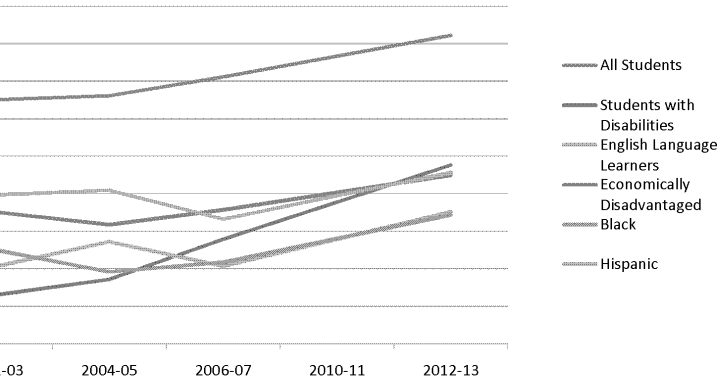
scoring proficient and above on the Grade 4 Mathematics NAEP. * Indicates data is not available.

All Students				Students with Disabilities					English Language Learners					Economically Disadvantaged					Black						
% asic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic
.6%	31.0%	4.3%	35.2%	211	54.9%	8.4%	0.4%	8.7%	215	47.7%	9.1%	0.4%	9.5%	221	38.9%	15.4%	1.1%	16.6%	209	58.8%	7.0%	0.5%	7.5%	221	36.9%
.2%	35.3%	5.0%	40.3%	221	38.6%	16.2%	0.4%	16.6%	225	32.7%	18.2%	0.5%	18.7%	225	32.2%	18.2%	1.0%	19.3%	210	53.6%	6.5%	0.3%	6.8%	224	34.1%
.7%	40.0%	6.9%	46.9%	223	36.9%	19.1%	1.5%	20.6%	227	33.4%	20.5%	1.9%	22.3%	228	31.5%	22.7%	1.9%	24.6%	212	52.7%	9.5%	0.8%	10.4%	229	31.0%
.0%	37.4%	7.6%	45.1%	222	39.6%	15.5%	2.0%	17.6%	223	33.9%	14.1%	1.1%	15.2%	229	27.5%	22.0%	1.8%	23.9%	217	45.3%	11.0%	0.4%	11.5%	228	28.7%
.5%	40.6%	9.1%	49.5%	227	32.3%	19.3%	2.9%	22.1%	229	25.6%	17.9%	1.8%	19.4%	233	22.3%	25.4%	2.3%	27.7%	221	39.1%	14.6%	0.9%	15.4%	233	22.1%
.9%	43.8%	10.5%	54.0%	232	25.0%	23.1%	3.8%	26.5%	234	17.2%	21.7%	2.5%	23.6%	236	17.2%	28.8%	2.9%	31.4%	225	32.9%	18.2%	1.4%	19.4%	237	15.4%

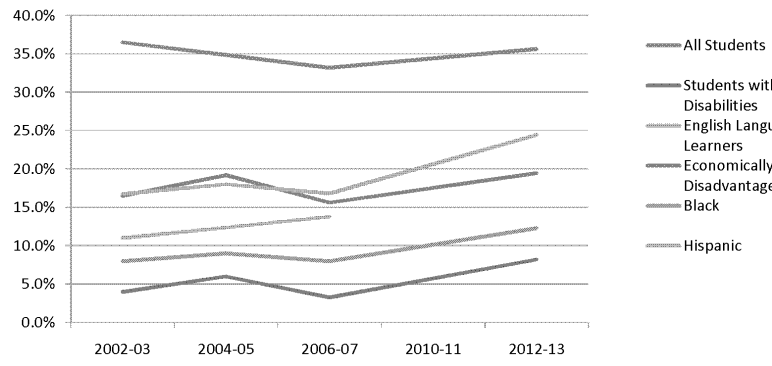
scoring proficient and above on the Grade 8 Mathematics NAEP. * Indicates data is not available.

All Students				Students with Disabilities					English Language Learners					Economically Disadvantaged					Black						
% asic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic	% Prof	% Adv	% Prof + Adv	Avg. score	% Basic
.8%	28.7%	6.4%	35.2%	247	68.7%	5.9%	0.6%	6.5%	*	*	*	*	*	259	51.8%	10.4%	1.4%	11.8%	241	76.0%	4.1%	0.5%	4.6%	262	50.4%
.9%	29.2%	6.7%	35.8%	250	62.7%	9.0%	0.3%	9.3%	269	44.1%	15.1%	3.9%	19.0%	263	46.3%	13.5%	1.5%	15.0%	246	69.6%	4.1%	1.2%	5.3%	265	43.8%
.1%	29.0%	8.0%	37.0%	249	63.4%	7.3%	0.5%	7.7%	260	52.5%	9.4%	2.7%	12.2%	266	44.4%	16.1%	1.5%	17.6%	247	69.7%	5.9%	0.1%	5.9%	268	40.8%
.0%	31.0%	8.4%	39.3%	255	55.2%	8.7%	0.9%	9.6%	259	54.8%	8.9%	0.4%	9.3%	269	39.7%	18.2%	1.8%	20.0%	254	61.5%	9.4%	1.6%	11.0%	268	44.0%
.4%	34.2%	9.8%	43.8%	260	47.9%	12.5%	1.8%	14.1%	265	46.5%	12.7%	1.1%	13.5%	273	34.6%	21.6%	2.3%	23.8%	258	55.3%	12.9%	2.1%	14.9%	273	37.3%
.9%	37.4%	11.2%	48.2%	265	40.6%	16.2%	2.7%	18.6%	270	38.2%	16.5%	1.8%	17.7%	276	29.5%	24.9%	2.8%	27.6%	262	49.1%	16.5%	2.6%	18.9%	277	30.7%

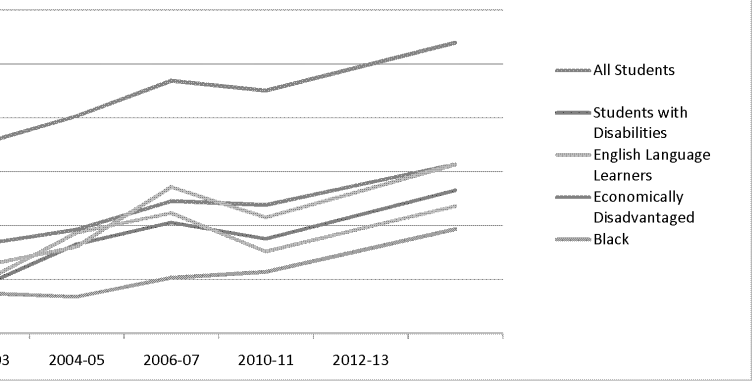
ercent of 4th grade WI students scoring proficient and above on the reading NAEP.



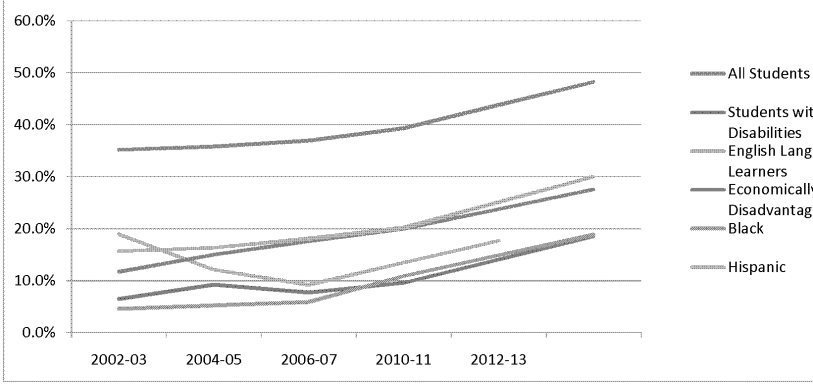
Percent of 8th grade WI students scoring proficient and above on the reading NAEP.



Percent of 4th grade WI students scoring proficient and above on the Math NAEP.



Percent of 8th grade WI students scoring proficient and above on the Math NAEP



Appendix 7: Every Child A Graduate Initiative

Every Child a Graduate

Every child must graduate ready for further education and the workforce. We must align our efforts so our students benefit from both college and career preparation, learning the skills and knowledge necessary to be contributing members of our communities.

To build on our long-standing commitment to public education, Wisconsin must recruit and retain quality educators, invest in innovation, ensure safe and respectful schools, advance accountability, and work toward fair and sustainable school funding.

- **Recruit and Retain Quality Teachers.** Strong teachers and school leaders are vital to the success of our students, schools, and communities. We need to recruit and retain talented educators for our children. Trained mentors are essential for our newest teachers and school leaders. We must expand incentives for our best educators to work in high-needs schools and engage in research and innovation. We should pilot new and innovative systems for educator compensation.

- **Innovation that Works.** Our students require strong libraries and access to up-to-date technology that reflects the information economy that is changing our lives and schools. For this we need multiple pathways to connect rigorous academic standards to real-world learning experiences, including on-line learning opportunities for all students. We must create the next generation of charter schools, schools that are of the highest quality and reach strong standards of accountability.

- **Safe and Respectful Schools.** Wisconsin parents want and expect their children to attend safe schools. Children learn best in positive, healthy, and successful learning environments. Investments in a safe and respectful school community include small class sizes, access to highly qualified counselors, anti-bullying programs, and systems that promote positive behaviors.

- **Accountability for Results.** We must create schools that are truly accountable to the parents, students, and citizens of every district in this state. We must develop multiple assessments that provide students and teachers with meaningful and timely information about student learning as measured against rigorous standards. A new generation accountability system recognizes progress in raising student achievement.

- **Fair and Sustainable Funding.** Our children, no matter where they live in Wisconsin, must have the same educational opportunities. Deferred maintenance, program and staffing cuts, delayed technology purchases, and higher student fees are becoming the norm instead of the exception. Child poverty continues to grow at a rapid rate. Moving beyond current challenges, we must agree on the building blocks of a sustainable funding future for our public schools and libraries. And, we must leverage available state funds and federal dollars to target schools that have the neediest children.

Appendix 8: Detailed Table for (A)(1)

Participating LEAs	# of Schools	# of K-12 Students	# of K-12 Students in Poverty	LEA Supt. (or equivalent)	President of local school board (if applicable)	President of Local Teachers Union (if applicable)	Uses Standard Terms & Conditions	(B)(3)	(C)(3)(i)	(C)(3)(ii)	(C)(3)(iii)	(D)(2)(i)
	LEA Demographics			Signatures on MOU's			Terms					
Name of LEA				Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Abbotsford	3	690	385	YES	YES	YES	YES	YES	YES	YES	YES	YES
Adams-Friendship Area	6	1810	1139	YES	YES	YES	YES	YES	YES	YES	YES	YES
Albany	3	369	87	YES	YES	YES	YES	YES	YES	YES	YES	YES
Algoma	3	607	229	YES	YES	YES	YES	YES	YES	YES	YES	YES
Alma	2	299	110	YES	YES	YES	YES	YES	YES	YES	YES	YES
Alma Center	3	612	333	YES	YES	YES	YES	YES	YES	YES	YES	YES
Almond-Bancroft	3	467	243	YES	YES	YES	YES	YES	YES	YES	YES	YES
Altoona	3	1504	567	YES	YES	YES	YES	YES	YES	YES	YES	YES
Amery	4	1713	679	YES	YES	YES	YES	YES	YES	YES	YES	YES
Antigo	9	2510	1291	YES	YES	YES	YES	YES	YES	YES	YES	YES
Appleton Area	37	15081	5441	YES	YES	YES	YES	YES	YES	YES	YES	YES
Arcadia	2	1048	393	YES	YES	YES	YES	YES	YES	YES	YES	YES
Argyle	3	340	90	YES	YES	NO	YES	YES	YES	YES	YES	YES
Arrowhead UHS	1	2246	59	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ashland	5	2198	1243	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ashwaubenon	6	3178	768	YES	YES	YES	YES	YES	YES	YES	YES	YES
Athens	3	511	125	YES	YES	YES	YES	YES	YES	YES	YES	YES
Auburndale	2	899	295	YES	YES	NO	YES	YES	YES	YES	YES	YES
Augusta	4	666	360	YES	YES	YES	YES	YES	YES	YES	YES	YES
Baldwin-Woodville Area	3	1544	412	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bangor	2	629	168	YES	YES	YES	YES	YES	YES	YES	YES	YES
Baraboo	7	3107	1197	YES	YES	YES	YES	YES	YES	YES	YES	YES
Barneveld	2	469	85	YES	YES	NO	YES	YES	YES	YES	YES	YES
Barron Area	7	1307	692	YES	YES	YES	YES	YES	YES	YES	YES	YES
Beaver Dam	10	3609	1513	YES	YES	YES	YES	YES	YES	YES	YES	YES

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	LEA Demographics			Signatures on MOU's			Terms					
Name of LEA				Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Beecher-Dunbar-Pembine	2	245	158	YES	YES	YES	YES	YES	YES	YES	YES	YES
Belleville	4	956	167	YES	YES	YES	YES	YES	YES	YES	YES	YES
Belmont Community	2	336	82	YES	YES	YES	YES	YES	YES	YES	YES	YES
Beloit	19	7146	4916	YES	YES	YES	YES	YES	YES	YES	YES	YES
Beloit Turner	4	1384	429	YES	YES	YES	YES	YES	YES	YES	YES	YES
Benton	2	236	81	YES	YES	NO	YES	YES	YES	YES	YES	YES
Berlin Area	4	1660	643	YES	YES	YES	YES	YES	YES	YES	YES	YES
Big Foot UHS	2	537	146	YES	YES	NO	YES	YES	YES	YES	YES	YES
Birchwood	4	299	176	YES	YES	YES	YES	YES	YES	YES	YES	YES
Black Hawk	3	421	170	YES	YES	YES	YES	YES	YES	YES	YES	YES
Black River Falls	5	1843	797	YES	YES	NO	YES	YES	YES	YES	YES	YES
Blair-Taylor	3	650	199	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bloomer	3	1137	435	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bonduel	4	837	324	YES	YES	YES	YES	YES	YES	YES	YES	YES
Boscobel Area	3	912	488	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bowler	2	419	223	YES	YES	YES	YES	YES	YES	YES	YES	YES
Boyceville Community	2	787	393	YES	NO	YES	YES	YES	YES	YES	YES	YES
Brighton #1	1	192	41	YES	YES	YES	YES	YES	YES	YES	YES	YES
Brillion	3	932	207	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bristol #1	1	664	150	YES	YES	YES	YES	YES	YES	YES	YES	YES
Brodhead	3	1159	369	YES	YES	YES	YES	YES	YES	YES	YES	YES
Brown Deer	4	1764	558	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bruce	3	525	324	YES	YES	YES	YES	YES	YES	YES	YES	YES
Burlington Area	8	3565	1017	YES	YES	YES	YES	YES	YES	YES	YES	YES

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	LEA Demographics			Signatures on MOU's			Terms					
Name of LEA				Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Butternut	3	214	125	YES	YES	NO	YES	YES	YES	YES	YES	YES
Cadott Community	3	888	402	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cambridge	4	884	144	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cameron	4	1038	403	YES	YES	YES	YES	YES	YES	YES	YES	YES
Campbellsport	4	1472	309	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cashton	2	569	228	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cassville	2	238	83	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cedar Grove-Belgium Area	4	1145	187	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cedarburg	6	3107	230	YES	YES	YES	YES	YES	YES	YES	YES	YES
Central/Westosha UHS	1	1201	213	YES	YES	YES	YES	YES	YES	YES	YES	YES
Chequamegon Sch Dist	7	825	352	YES	YES	YES	YES	YES	YES	YES	YES	YES
Chetek	3	907	444	YES	YES	YES	YES	YES	YES	YES	YES	YES
Chilton	3	1223	319	YES	YES	YES	YES	YES	YES	YES	YES	YES
Chippewa Falls Area	9	5089	1748	YES	YES	NO	YES	YES	YES	YES	YES	YES
Clayton	3	415	194	YES	YES	YES	YES	YES	YES	YES	YES	YES
Clear Lake	3	644	244	YES	YES	YES	YES	YES	YES	YES	YES	YES
Clinton Community	3	1234	324	YES	YES	YES	YES	YES	YES	YES	YES	YES
Clintonville	4	1537	717	YES	YES	NO	YES	YES	YES	YES	YES	YES
Cochrane-Fountain City	2	667	207	YES	YES	YES	YES	YES	YES	YES	YES	YES
Colby	5	970	427	YES	YES	YES	YES	YES	YES	YES	YES	YES
Coleman	3	731	294	YES	YES	YES	YES	YES	YES	YES	YES	YES
Colfax	2	846	336	YES	YES	YES	YES	YES	YES	YES	YES	YES
Columbus	4	1192	265	YES	YES	NO	YES	YES	YES	YES	YES	YES

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	LEA Demographics			Signatures on MOU's			Terms					
Name of LEA				Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Cornell	2	478	250	YES	YES	NO	YES	YES	YES	YES	YES	YES
Crandon	4	938	265	YES	YES	YES	YES	YES	YES	YES	YES	YES
Crivitz	3	754	365	YES	YES	NO	YES	YES	YES	YES	YES	YES
Cuba City	2	674	204	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cudahy	9	2655	1218	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cumberland	5	1059	490	YES	YES	YES	YES	YES	YES	YES	YES	YES
D C Everest Area	11	5663	1648	YES	YES	YES	YES	YES	YES	YES	YES	YES
Darlington Community	2	752	198	YES	YES	YES	YES	YES	YES	YES	YES	YES
De Forest Area	7	3249	679	YES	YES	YES	YES	YES	YES	YES	YES	YES
De Pere	7	3823	359	YES	YES	YES	YES	YES	YES	YES	YES	YES
De Soto Area	5	550	216	YES	YES	NO	YES	YES	YES	YES	YES	YES
Deerfield Community	5	819	169	YES	YES	YES	YES	YES	YES	YES	YES	YES
Delavan-Darien	6	2636	1553	YES	YES	YES	YES	YES	YES	YES	YES	YES
Denmark	6	1525	226	YES	YES	YES	YES	YES	YES	YES	YES	YES
Dodgeland	2	831	307	YES	YES	YES	YES	YES	YES	YES	YES	YES
Dodgeville	4	1336	442	YES	YES	NO	YES	YES	YES	YES	YES	YES
Dover #1	1	91	21	YES	YES	YES	YES	YES	YES	YES	YES	YES
Drummond Area	3	443	228	YES	YES	YES	YES	YES	YES	YES	YES	YES
Durand	2	1013	350	YES	YES	YES	YES	YES	YES	YES	YES	YES
East Troy Community	5	1757	343	YES	YES	YES	YES	YES	YES	YES	YES	YES
Eau Claire Area	21	10806	3948	YES	YES	YES						
Edgar	3	661	190	YES	YES	YES	YES	YES	YES	YES	YES	YES
Edgerton	4	1861	504	YES	YES	YES	YES	YES	YES	YES	YES	YES
Elcho	2	357	152	YES	YES	NO	YES	YES	YES	YES	YES	YES

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	LEA Demographics			Signatures on MOU's			Terms					
Name of LEA				Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Eleva-Strum	3	629	204	YES	YES	YES	YES	YES	YES	YES	YES	YES
Elk Mound Area	3	1076	303	YES	YES	YES	YES	YES	YES	YES	YES	YES
Elkhart Lake-Glenbeulah	3	504	118	YES	YES	YES	YES	YES	YES	YES	YES	YES
Elkhorn Area	6	3110	904	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ellsworth Community	5	1695	440	YES	YES	YES	YES	YES	YES	YES	YES	YES
Elmbrook	11	7239	706	YES	YES	YES	YES	YES	YES	YES	YES	YES
Elmwood	3	347	100	YES	YES	YES	YES	YES	YES	YES	YES	YES
Erin	1	349	31	YES	YES	YES	YES	YES	YES	YES	YES	YES
Evansville Community	4	1798	421	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fall Creek	3	831	360	YES	YES	NO	YES	YES	YES	YES	YES	YES
Fall River	2	519	93	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fennimore Community	2	757	312	YES	YES	YES	YES	YES	YES	YES	YES	YES
Flambeau	5	697	399	YES	YES	YES	YES	YES	YES	YES	YES	YES
Florence	3	479	194	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fond du Lac	13	7364	2856	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fontana J8	1	278	54	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fort Atkinson	8	2899	550	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fox Point J2	2	911	74	YES	YES	YES	YES	YES	YES	YES	YES	YES
Franklin Public	9	4200	479	YES	YES	YES	YES	YES	YES	YES	YES	YES
Frederic	2	482	265	YES	YES	NO	YES	YES	YES	YES	YES	YES
Freedom Area	3	1662	313	YES	YES	YES						
Friess Lake	1	298	9	YES	NO	NO	YES	YES	YES	YES	YES	YES
Galesville-Ettrick-Trempealeau	6	1448	401	YES	YES	YES	YES	YES	YES	YES	YES	YES

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	LEA Demographics			Signatures on MOU's			Terms					
Name of LEA				Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Geneva J4	1	170	0	YES	NO	NO	YES	YES	YES	YES	YES	YES
Genoa City J2	2	635	198	YES	YES	YES	YES	YES	YES	YES	YES	YES
Germantown	6	3943	460	YES	YES	NO	YES	YES	YES	YES	YES	YES
Gibraltar Area	3	590	111	YES	YES	YES	YES	YES	YES	YES	YES	YES
Gillett	3	703	356	YES	YES	YES	YES	YES	YES	YES	YES	YES
Gilman	2	496	281	YES	YES	YES	YES	YES	YES	YES	YES	YES
Gilmanton	2	187	77	YES	YES	YES	YES	YES	YES	YES	YES	YES
Glendale-River Hills	2	1002	218	YES	YES	YES	YES	YES	YES	YES	YES	YES
Glenwood City	4	731	220	YES	YES	YES	YES	YES	YES	YES	YES	YES
Grafton	5	2208	307	YES	YES	YES	YES	YES	YES	YES	YES	YES
Granton Area	2	249	154	YES	YES	NO	YES	YES	YES	YES	YES	YES
Grantsburg	5	1671	711	YES	YES	YES	YES	YES	YES	YES	YES	YES
Green Bay Area	39	20332	11039	YES	YES	YES	YES	YES	YES	YES	YES	YES
Green Lake	3	299	65	YES	YES	YES	YES	YES	YES	YES	YES	YES
Greendale	6	2646	498	YES	YES	YES	YES	YES	YES	YES	YES	YES
Greenfield	6	3462	1139	YES	YES	YES	YES	YES	YES	YES	YES	YES
Greenwood	2	419	214	YES	YES	YES	YES	YES	YES	YES	YES	YES
Gresham	2	293	150	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hamilton	7	4536	486	YES	NO	NO	YES	YES	YES	YES	YES	YES
Hartford J1	3	1657	550	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hartford UHS	1	1511	276	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hayward Community	9	1918	1001	YES	YES	YES	YES	YES	YES	YES	YES	YES
Herman #22	1	101	35	YES	YES	YES	YES	YES	YES	YES	YES	YES
Highland	2	281	58	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hilbert	4	490	106	YES	YES	YES	YES	YES	YES	YES	YES	YES

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	LEA Demographics			Signatures on MOU's			Terms					
Name of LEA				Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Hillsboro	2	558	223	YES	YES	YES	NO	YES	YES	YES	YES	YES
Holmen	7	3656	912	YES	YES	YES	YES	YES	YES	YES	YES	YES
Horicon	3	824	263	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hortonville	5	3355	507	YES	YES	YES	YES	YES	YES	YES	YES	YES
Howards Grove	4	963	119	YES	NO	NO	YES	YES	YES	YES	YES	YES
Howard-Suamico	9	5653	865	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hudson	8	5437	753	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hurley	3	626	94	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hustisford	2	416	115	YES	YES	YES	YES	YES	YES	YES	YES	YES
Independence	2	378	147	YES	YES	YES	YES	YES	YES	YES	YES	YES
Iola-Scandinavia	3	735	228	YES	YES	YES	YES	YES	YES	YES	YES	YES
Iowa-Grant	2	788	260	YES	NO	NO	YES	YES	YES	YES	YES	YES
Ithaca	3	363	117	YES	YES	YES	YES	YES	YES	YES	YES	YES
Janesville	23	10456	4496	YES	YES	YES	YES	YES	YES	YES	YES	YES
Jefferson	6	1901	617	YES	YES	YES	YES	YES	YES	YES	YES	YES
Johnson Creek	2	683	155	YES	YES	YES	YES	YES	YES	YES	YES	YES
Juda	2	284	88	YES	YES	YES	YES	YES	YES	YES	YES	YES
Kaukauna Area	7	3969	978	YES	NO	NO	YES	YES	YES	YES	YES	YES
Kenosha	44	22933	10626	YES	YES	YES	YES	YES	YES	YES	YES	YES
Kettle Moraine	6	4260	363	YES	YES	YES	YES	YES	YES	YES	YES	YES
Kewaskum	5	2008	336	YES	YES	NO	YES	YES	YES	YES	YES	YES
Kewaunee	5	1033	190	YES	YES	YES	YES	YES	YES	YES	YES	YES
Kimberly Area	8	4532	515	YES	YES	YES	YES	YES	YES	YES	YES	YES
Kohler	3	629	0	YES	YES	NO	YES	YES	YES	YES	YES	YES
La Crosse	20	7023	3184	YES	YES	YES	YES	YES	YES	YES	YES	YES
La Farge	4	259	147	YES	YES	YES	YES	YES	YES	YES	YES	YES

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Lac du Flambeau #1	1	467	387	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ladysmith-Hawkins	4	945	537	YES	YES	YES	YES	YES	YES	YES	YES	YES
Lake Country	1	547	30	YES	YES	YES	YES	YES	YES	YES	YES	YES
Lake Geneva J1	4	2119	1114	YES	YES	YES	YES	YES	YES	YES	YES	YES
Lake Geneva-Genoa City UHS	2	1354	478	YES	YES	YES	YES	YES	YES	YES	YES	YES
Lake Holcombe	2	379	206	YES	YES	YES	YES	YES	YES	YES	YES	YES
Lake Mills Area	4	1337	294	YES	YES	NO	YES	YES	YES	YES	YES	YES
Lakeland UHS	1	855	304	YES	YES	YES	YES	YES	YES	YES	YES	YES
Lancaster Community	3	942	357	YES	NO	NO	YES	YES	YES	YES	YES	YES
Lena	4	423	174	YES	YES	YES	YES	YES	YES	YES	YES	YES
Linn J4	1	125	59	YES	YES	YES	YES	YES	YES	YES	YES	YES
Linn J6	1	130	32	YES	YES	YES	YES	YES	YES	YES	YES	YES
Little Chute Area	3	1515	480	YES	YES	NO	YES	YES	YES	YES	YES	YES
Lodi	5	1637	257	YES	YES	YES	YES	YES	YES	YES	YES	YES
Lomira	4	1096	227	YES	YES	YES	YES	YES	YES	YES	YES	YES
Loyal	3	555	285	YES	YES	YES	YES	YES	YES	YES	YES	YES
Luck	2	542	250	YES	YES	YES	YES	YES	YES	YES	YES	YES
Luxemburg-Casco	5	1923	328	YES	NO	NO	YES	YES	YES	YES	YES	YES
Madison Metropolitan	54	24628	11486	YES	YES	YES	YES	YES	YES	YES	YES	YES
Manawa	4	785	233	YES	YES	YES	YES	YES	YES	YES	YES	YES
Manitowoc	13	5551	1730	YES	NO	YES	YES	YES	YES	YES	YES	YES
Maple	4	1480	452	YES	YES	YES	YES	YES	YES	YES	YES	YES

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Maple Dale-Indian Hill	2	500	60	YES	YES	YES						
Marathon City	2	668	94	YES	YES	YES	YES	YES	YES	YES	YES	YES
Marinette	5	2209	1011	YES	YES	YES	YES	YES	YES	YES	YES	YES
Marion	2	539	240	YES	NO	YES	YES	YES	YES	YES	YES	YES
Markesan	4	772	257	YES	YES	YES	YES	YES	YES	YES	YES	YES
Marshall	6	1252	387	YES	YES	YES	YES	YES	YES	YES	YES	YES
Marshfield	8	4084	1116	YES	YES	YES	YES	YES	YES	YES	YES	YES
Mauston	6	1520	760	YES	YES	YES	YES	YES	YES	YES	YES	YES
Mayville	3	1176	328	YES	YES	YES	YES	YES	YES	YES	YES	YES
McFarland	5	2614	376	YES	NO	YES	YES	YES	YES	YES	YES	YES
Medford Area	5	2103	765	YES	YES	YES	YES	YES	YES	YES	YES	YES
Mellen	3	299	97	YES	YES	YES	YES	YES	YES	YES	YES	YES
Melrose-Mindoro	3	738	123	YES	YES	YES	YES	YES	YES	YES	YES	YES
Menasha	8	3745	1958	YES	YES	NO	YES	YES	YES	YES	YES	YES
Menominee Indian	3	854	721	YES	YES	YES	YES	YES	YES	YES	YES	YES
Menomonee Falls	8	4487	722	YES	YES	YES	YES	YES	YES	YES	YES	YES
Menomonie Area	8	3322	1241	YES	NO	NO	YES	YES	YES	YES	YES	YES
Mequon-Thiensville	6	3675	246	YES	YES	NO	YES	YES	YES	YES	YES	YES
Mercer	2	137	76	YES	YES	YES	YES	YES	YES	YES	YES	YES
Merrill Area	9	2978	1289	YES	YES	YES	YES	YES	YES	YES	YES	YES
Middleton-Cross Plains	10	5840	836	YES	YES	NO	YES	YES	YES	YES	YES	YES
Milton	7	3262	643	YES	YES	YES	YES	YES	YES	YES	YES	YES
Milwaukee	215	82096	64833	YES	YES	YES	YES	YES	YES	YES	YES	YES

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Mineral Point	3	763	156	YES	YES	YES	YES	YES	YES	YES	YES	YES
Minocqua J1	1	547	180	YES	YES	NO	YES	YES	YES	YES	YES	YES
Mishicot	5	951	167	YES	YES	NO	YES	YES	YES	YES	YES	YES
Mondovi	3	1085	426	YES	YES	YES	YES	YES	YES	YES	YES	YES
Monona Grove	8	3088	527	YES	YES	YES	YES	YES	YES	YES	YES	YES
Monroe	9	2928	896	YES	YES	YES	YES	YES	YES	YES	YES	YES
Monticello	3	397	98	YES	YES	YES	YES	YES	YES	YES	YES	YES
Mosinee	3	2176	616	YES	YES	YES	YES	YES	YES	YES	YES	YES
Mount Horeb Area	5	2358	289	YES	YES	YES	YES	YES	YES	YES	YES	YES
Muskego-Norway	8	4921	454	YES	YES	YES	YES	YES	YES	YES	YES	YES
Necedah Area	3	776	443	YES	YES	YES	YES	YES	YES	YES	YES	YES
Neenah	14	6327	1620	YES	YES	YES	YES	YES	YES	YES	YES	YES
Neillsville	3	1048	458	YES	YES	YES	YES	YES	YES	YES	YES	YES
Nekoosa	6	1336	599	YES	YES	YES	YES	YES	YES	YES	YES	YES
Neosho J3	1	180	48	YES	NO	NO	YES	YES	YES	YES	YES	YES
New Auburn	2	349	173	YES	YES	YES	YES	YES	YES	YES	YES	YES
New Berlin	7	4743	446	YES	YES	NO	YES	YES	YES	YES	YES	YES
New Glarus	2	868	153	YES	YES	YES	YES	YES	YES	YES	YES	YES
New Holstein	4	1135	254	YES	YES	YES	YES	YES	YES	YES	YES	YES
New Lisbon	3	631	230	YES	YES	YES	YES	YES	YES	YES	YES	YES
New London	8	2384	778	YES	YES	YES	YES	YES	YES	YES	YES	YES
New Richmond	6	3035	820	YES	YES	YES	YES	YES	YES	YES	YES	YES
Niagara	2	426	175	YES	YES	YES	YES	YES	YES	YES	YES	YES
Nicolet UHS	1	1184	139	YES	YES	YES	YES	YES	YES	YES	YES	YES
Norris	1	57	52	YES	YES	NO	YES	YES	YES	YES	YES	YES

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North Cape	1	205	26	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Crawford	2	469	225	YES	YES	NO	YES	YES	YES	YES	YES	YES
North Fond du Lac	4	1198	440	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Lake	1	367	0	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Lakeland	1	180	72	YES	YES	YES	YES	YES	YES	YES	YES	YES
Northern Ozaukee	5	1641	301	YES	YES	NO	YES	YES	YES	YES	YES	YES
Northland Pines	5	1425	569	YES	YES	YES	YES	YES	YES	YES	YES	YES
Northwood	1	392	206	YES	YES	YES	YES	YES	YES	YES	YES	YES
Norwalk-Ontario-Wilton	2	699	341	YES	YES	YES	YES	YES	YES	YES	YES	YES
Norway J7	1	87	14	YES	YES	YES	YES	YES	YES	YES	YES	YES
Oak Creek-Franklin	11	6132	1156	YES	YES	YES	YES	YES	YES	YES	YES	YES
Oakfield	3	525	91	YES	YES	YES	YES	YES	YES	YES	YES	YES
Oconomowoc Area	8	4856	713	YES	YES	NO	YES	YES	YES	YES	YES	YES
Oconto	4	1180	511	YES	YES	YES	YES	YES	YES	YES	YES	YES
Oconto Falls	7	1898	688	YES	YES	YES	YES	YES	YES	YES	YES	YES
Omro	4	1324	345	YES	YES	YES	YES	YES	YES	YES	YES	YES
Onalaska	6	2960	754	YES	YES	YES	YES	YES	YES	YES	YES	YES
Oregon	6	3595	509	YES	YES	NO	YES	YES	YES	YES	YES	YES
Osceola	5	1893	526	YES	YES	YES	YES	YES	YES	YES	YES	YES
Oshkosh Area	27	10213	3696	YES	YES	YES	YES	YES	YES	YES	YES	YES
Osseo-Fairchild	4	1022	384	YES	YES	NO	YES	YES	YES	YES	YES	YES
Owen-Withee	3	582	266	YES	YES	YES	YES	YES	YES	YES	YES	YES
Palmyra-Eagle Area	5	1152	190	YES	YES	YES	YES	YES	YES	YES	YES	YES

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Pardeeville Area	4	881	254	YES	YES	YES	YES	YES	YES	YES	YES	YES
Paris J1	1	182	21	YES	YES	YES	YES	YES	YES	YES	YES	YES
Parkview	6	992	372	YES	YES	YES	YES	YES	YES	YES	YES	YES
Pecatonica Area	2	431	152	YES	YES	YES	YES	YES	YES	YES	YES	YES
Pepin Area	2	251	89	YES	NO	NO	YES	YES	YES	YES	YES	YES
Peshtigo	2	1212	443	YES	NO	NO	YES	YES	YES	YES	YES	YES
Pewaukee	4	2449	270	YES	NO	NO	YES	YES	YES	YES	YES	YES
Phelps	2	134	70	YES	YES	YES	YES	YES	YES	YES	YES	YES
Phillips	3	868	381	YES	YES	YES	YES	YES	YES	YES	YES	YES
Pittsville	2	675	208	YES	YES	YES	YES	YES	YES	YES	YES	YES
Platteville	4	1454	479	YES	YES	YES	YES	YES	YES	YES	YES	YES
Plum City	2	308	110	YES	YES	YES	YES	YES	YES	YES	YES	YES
Plymouth	7	2337	546	YES	YES	YES	YES	YES	YES	YES	YES	YES
Port Edwards	4	451	153	YES	YES	YES	YES	YES	YES	YES	YES	YES
Port Washington-Saukville	5	2713	608	YES	YES	YES	YES	YES	YES	YES	YES	YES
Portage Community	11	2625	794	YES	YES	YES	YES	YES	YES	YES	YES	YES
Potosi	3	339	128	YES	YES	YES	YES	YES	YES	YES	YES	YES
Poynette	5	1122	125	YES	YES	YES	YES	YES	YES	YES	YES	YES
Prairie du Chien Area	3	1150	628	YES	YES	NO	YES	YES	YES	YES	YES	YES
Prairie Farm	3	352	142	YES	YES	YES	YES	YES	YES	YES	YES	YES
Prentice	5	462	172	YES	YES	YES	YES	YES	YES	YES	YES	YES
Prescott	4	1264	230	YES	YES	YES	YES	YES	YES	YES	YES	YES
Princeton	1	354	160	YES	YES	YES	YES	YES	YES	YES	YES	YES

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Pulaski Community	8	3835	753	YES	YES	NO	YES	YES	YES	YES	YES	YES
Racine	35	21276	12065	YES	YES	YES	YES	YES	YES	YES	YES	YES
Randall J1	1	768	156	YES	YES	YES	YES	YES	YES	YES	YES	YES
Randolph	2	545	216	YES	YES	YES	YES	YES	YES	YES	YES	YES
Random Lake	4	924	235	YES	YES	YES	YES	YES	YES	YES	YES	YES
Raymond #14	1	434	57	YES	YES	YES	YES	YES	YES	YES	YES	YES
Reedsburg	8	2542	976	YES	YES	YES	YES	YES	YES	YES	YES	YES
Reedsville	5	654	181	YES	YES	YES	YES	YES	YES	YES	YES	YES
Rhinelander	8	2601	1004	YES	YES	YES	YES	YES	YES	YES	YES	YES
Rib Lake	4	483	217	YES	NO	NO	YES	YES	YES	YES	YES	YES
Rice Lake Area	12	2388	878	YES	YES	YES	YES	YES	YES	YES	YES	YES
Richfield J1	2	412	16	YES	YES	YES	YES	YES	YES	YES	YES	YES
Richland	6	1384	657	YES	YES	YES	YES	YES	YES	YES	YES	YES
Richmond	1	499	8	YES	YES	NO	YES	YES	YES	YES	YES	YES
Rio Community	2	481	146	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ripon Area	6	1835	535	YES	YES	YES	YES	YES	YES	YES	YES	YES
River Falls	7	2993	586	YES	YES	YES	YES	YES	YES	YES	YES	YES
River Ridge	3	555	256	YES	YES	YES	YES	YES	YES	YES	YES	YES
River Valley	6	1361	474	YES	YES	YES	YES	YES	YES	YES	YES	YES
Riverdale	3	708	360	YES	YES	NO	YES	YES	YES	YES	YES	YES
Rosendale-Brandon	5	1037	251	YES	YES	YES	YES	YES	YES	YES	YES	YES
Rosholt	3	654	176	YES	YES	YES	YES	YES	YES	YES	YES	YES
Royall	3	564	261	NO	YES	YES	YES	YES	YES	YES	YES	YES
Rubicon J6	1	162	26	YES	YES	YES	YES	YES	YES	YES	YES	YES
Saint Croix Central	3	1325	271	YES	YES	YES	YES	YES	YES	YES	YES	YES

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Saint Croix Falls	4	1143	366	YES	YES	YES	YES	YES	YES	YES	YES	YES
Saint Francis	3	1285	428	YES	YES	YES	YES	YES	YES	YES	YES	YES
Salem	1	998	274	YES	YES	YES	YES	YES	YES	YES	YES	YES
Sauk Prairie	7	2718	807	YES	YES	YES	YES	YES	YES	YES	YES	YES
Seneca	3	283	153	YES	YES	NO	YES	YES	YES	YES	YES	YES
Sevastopol	5	557	191	YES	NO	NO	YES	YES	YES	YES	YES	YES
Seymour Community	5	2569	666	YES	YES	YES	YES	YES	YES	YES	YES	YES
Sharon J11	1	308	163	YES	YES	YES	YES	YES	YES	YES	YES	YES
Shawano	4	2583	1154	YES	YES	YES	YES	YES	YES	YES	YES	YES
Sheboygan Area	27	10260	4531	YES	YES	YES	YES	YES	YES	YES	YES	YES
Sheboygan Falls	3	1822	327	YES	YES	YES	YES	YES	YES	YES	YES	YES
Shell Lake	3	652	339	YES	YES	NO	YES	YES	YES	YES	YES	YES
Shiocton	2	786	183	YES	YES	YES	YES	YES	YES	YES	YES	YES
Shorewood	5	1935	298	YES	YES	YES	YES	YES	YES	YES	YES	YES
Shullsburg	3	369	123	YES	YES	NO	YES	YES	YES	YES	YES	YES
Silver Lake J1	1	565	196	YES	YES	NO	YES	YES	YES	YES	YES	YES
Siren	2	517	334	YES	YES	NO	YES	YES	YES	YES	YES	YES
Slinger	5	2909	365	YES	YES	YES	YES	YES	YES	YES	YES	YES
Solon Springs	1	347	172	YES	YES	NO	YES	YES	YES	YES	YES	YES
Somerset	3	1596	228	YES	YES	YES	YES	YES	YES	YES	YES	YES
South Milwaukee	8	3379	1262	YES	YES	YES	YES	YES	YES	YES	YES	YES
South Shore	2	164	109	YES	YES	YES	YES	YES	YES	YES	YES	YES
Southern Door County	4	1199	332	YES	YES	YES	YES	YES	YES	YES	YES	YES
Southwestern Wisconsin	2	560	177	YES	YES	YES	YES	YES	YES	YES	YES	YES

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Sparta Area	11	2586	1229	YES	YES	YES	YES	YES	YES	YES	YES	YES
Spencer	2	765	272	YES	YES	YES	YES	YES	YES	YES	YES	YES
Spooner Area	3	1221	564	YES	YES	YES	YES	YES	YES	YES	YES	YES
Spring Valley	3	737	230	YES	YES	YES	YES	YES	YES	YES	YES	YES
Stanley-Boyd Area	4	971	463	YES	YES	YES	YES	YES	YES	YES	YES	YES
Stevens Point Area	18	7386	2354	YES	YES	NO	YES	YES	YES	YES	YES	YES
Stockbridge	4	200	44	YES	YES	YES	YES	YES	YES	YES	YES	YES
Stone Bank	1	332	22	YES	YES	YES	YES	YES	YES	YES	YES	YES
Stoughton Area	6	3392	635	YES	YES	YES	YES	YES	YES	YES	YES	YES
Stratford	2	873	202	YES	YES	NO	YES	YES	YES	YES	YES	YES
Sturgeon Bay	6	1212	445	YES	YES	YES	YES	YES	YES	YES	YES	YES
Sun Prairie Area	11	6633	1709	YES	YES	YES	YES	YES	YES	YES	YES	YES
Superior	8	4873	2205	YES	YES	NO	YES	YES	YES	YES	YES	YES
Suring	2	487	224	YES	YES	YES	YES	YES	YES	YES	YES	YES
Swallow	1	565	5	YES	YES	YES	YES	YES	YES	YES	YES	YES
Thorp	2	585	271	YES	YES	YES	YES	YES	YES	YES	YES	YES
Three Lakes	3	586	176	YES	YES	YES	YES	YES	YES	YES	YES	YES
Tigerton	2	287	174	YES	YES	NO	YES	YES	YES	YES	YES	YES
Tomah Area	10	3141	1225	YES	YES	YES	YES	YES	YES	YES	YES	YES
Tomahawk	3	1456	545	YES	NO	YES	YES	YES	YES	YES	YES	YES
Tomorrow River	3	988	233	YES	YES	YES	YES	YES	YES	YES	YES	YES
Trevor-Wilmot Consolidated	3	588	190	YES	YES	YES	YES	YES	YES	YES	YES	YES
Tri-County Area	3	727	429	YES	YES	YES	YES	YES	YES	YES	YES	YES
Turtle Lake	2	489	240	YES	YES	YES	YES	YES	YES	YES	YES	YES
Twin Lakes #4	1	444	174	YES	YES	YES	YES	YES	YES	YES	YES	YES

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Two Rivers	6	1849	752	YES	YES	YES	YES	YES	YES	YES	YES	YES
Union Grove J1	1	762	216	YES	YES	NO	YES	YES	YES	YES	YES	YES
Union Grove UHS	1	867	64	YES	YES	YES	YES	YES	YES	YES	YES	YES
Unity	3	1090	544	YES	YES	YES	YES	YES	YES	YES	YES	YES
Valders Area	4	1080	238	YES	YES	YES	YES	YES	YES	YES	YES	YES
Verona Area	10	4675	1141	YES	YES	YES	YES	YES	YES	YES	YES	YES
Viroqua Area	5	1181	507	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wabeno Area	2	506	213	YES	YES	YES	YES	YES	YES	YES	YES	YES
Walworth J1	1	561	273	YES	YES	YES	YES	YES	YES	YES	YES	YES
Washburn	3	549	209	YES	YES	YES	YES	YES	YES	YES	YES	YES
Washington	2	67	19	YES	YES	NO	YES	YES	YES	YES	YES	YES
Waterford Graded J1	4	1645	270	YES	YES	YES	YES	YES	YES	YES	YES	YES
Waterford UHS	1	1071	92	YES	YES	YES	YES	YES	YES	YES	YES	YES
Watertown	8	3942	1446	YES	YES	NO	YES	YES	YES	YES	YES	YES
Waukesha	28	13909	3680	YES	YES	NO	YES	YES	YES	YES	YES	YES
Waunakee Community	6	3618	238	YES	YES	YES	YES	YES	YES	YES	YES	YES
Waupaca	5	2371	812	YES	YES	YES	YES	YES	YES	YES	YES	YES
Waupun	6	1941	699	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wausau	21	8522	3458	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wausaukee	3	539	300	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wautoma Area	4	1485	887	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wauwatosa	15	7133	1023	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wauzeka-Steuben	3	347	205	YES	YES	NO	YES	YES	YES	YES	YES	YES
Webster	3	732	515	YES	YES	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	# of Schools	# of K-12 Students	# of K-12 Students in Poverty	LEA Supt. (or equivalent)	President of local school board (if applicable)	President of Local Teachers Union (if applicable)	Uses Standard Terms & Conditions	(B)(3)	(C)(3)(i)	(C)(3)(ii)	(C)(3)(iii)	(D)(2)(i)
	LEA Demographics			Signatures on MOU's			Terms					
Name of LEA				Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
West Allis	18	8750	4239	YES	NO	NO	YES	YES	YES	YES	YES	YES
West Bend	12	6987	2011	YES	YES	NO	YES	YES	YES	YES	YES	YES
West De Pere	6	2772	591	YES	YES	YES	YES	YES	YES	YES	YES	YES
West Salem	3	1754	378	YES	YES	YES	YES	YES	YES	YES	YES	YES
Westby Area	5	1127	333	YES	YES	NO	YES	YES	YES	YES	YES	YES
Westfield	6	1223	630	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weston	3	308	142	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weyauwega-Fremont	5	947	314	YES	YES	YES	YES	YES	YES	YES	YES	YES
Weyerhaeuser Area	2	131	80	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wheatland J1	1	416	147	YES	YES	YES	YES	YES	YES	YES	YES	YES
White Lake	2	212	137	YES	YES	YES	YES	YES	YES	YES	YES	YES
Whitefish Bay	4	2976	5	YES	NO	YES	YES	YES	YES	YES	YES	YES
Whitehall	4	760	323	YES	YES	YES	YES	YES	YES	YES	YES	YES
Whitewater	6	2033	714	YES	YES	YES	YES	YES	YES	YES	YES	YES
Whitnall	5	2374	367	YES	YES	NO	YES	YES	YES	YES	YES	YES
Wild Rose	3	687	298	YES	YES	YES	YES	YES	YES	YES	YES	YES
Williams Bay	4	584	138	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wilmot UHS	1	1158	333	YES	YES	YES	YES	YES	YES	YES	YES	YES
Winneconne Community	4	1522	218	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wisconsin Dells	5	1716	753	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wisconsin Heights	4	838	181	YES	YES	NO	YES	YES	YES	YES	YES	YES
Wisconsin Rapids	15	5582	2168	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wittenberg-Birnamwood	4	1271	499	YES	YES	YES	YES	YES	YES	YES	YES	YES

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	LEA Demographics			Signatures on MOU's			Terms					
Name of LEA				Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Wonewoc-Union Center	4	346	162	YES	YES	YES	YES	YES	YES	YES	YES	YES
Woodruff J1	1	562	213	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wrightstown Community	3	1323	209	YES	YES	YES	YES	YES	YES	YES	YES	YES
Yorkville J2	1	411	49	YES	NO	NO	YES	YES	YES	YES	YES	YES
Non-district Charter: Downtown Montes	1	99	31	YES	YES	N/A	YES	YES	YES	YES	YES	YES
Non-district Charter: Milwaukee Colle	1	478	382	YES	NO	N/A	YES	YES	YES	YES	YES	YES
Non-district Charter: Central City Cy	1	355	335	YES	YES	N/A	YES	YES	YES	YES	YES	YES
Non-district Charter: Milwaukee Acad	1	948	732	YES	YES	N/A	YES	YES	YES	YES	YES	YES
Non-district Charter Schools: BEAM	1	613	605	YES	YES	N/A	YES	YES	YES	YES	YES	YES
Non-district Charter: DLH Academy	1	288	243	YES	YES	N/A	YES	YES	YES	YES	YES	YES
Non-district Charter: 21st Century Pr	1	507	290	YES	YES	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: YMCA Young Leaders	1	504	435	NO	YES	N/A	YES	YES	YES	YES	YES	YES

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	LEA Demographics			Signatures on MOU's			Terms					
Name of LEA				Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Non-district Charter: Academy of Learning & Leadership	1	402	384	YES	YES	N/A	YES	YES	YES	YES	YES	YES
Non-district Charter: Capitol West Academy	1	209	105	YES	YES	N/A	YES	YES	YES	YES	YES	YES
Non-district Charter: Tenor High School	1	196	155	YES	YES	N/A	YES	YES	YES	YES	YES	YES
Non-district Charter: Seeds of Health	1	365	360	YES	YES	N/A	YES	YES	YES	YES	YES	YES
Non-district Charter: Milwaukee Renaissance Academy	1	125	104	NO	YES	N/A	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
	Preliminary Scope of Work – Participation in each applicable Plan Criterion										
Name of LEA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Abbotsford	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Adams-Friendship Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Albany	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Algoma	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Alma	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Alma Center	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Almond-Bancroft	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Altoona	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Amery	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Antigo	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Appleton Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Arcadia	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Argyle	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Arrowhead UHS	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Ashland	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ashwaubenon	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Athens	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Auburndale	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Augusta	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Baldwin-Woodville Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bangor	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Baraboo	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Barneveld	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Barron Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Beaver Dam	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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Beecher-Dunbar-Pembine	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Belleville	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Belmont Community	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Beloit	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Beloit Turner	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Benton	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Berlin Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Big Foot UHS	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Birchwood	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Black Hawk	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Black River Falls	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Blair-Taylor	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Bloomer	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bonduel	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Boscobel Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Bowler	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Boyceville Community	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Brighton #1	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Brillion	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bristol #1	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Brodhead	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Brown Deer	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bruce	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Burlington Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2) (ii)	(D)(2) (iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2) (iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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Butternut	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Cadott Community	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Cambridge	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cameron	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Campbellsport	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Cashton	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Cassville	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cedar Grove-Belgium Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Cedarburg	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Central/Westosha UHS	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Chequamegon Sch Dist	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Chetek	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Chilton	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Chippewa Falls Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Clayton	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Clear Lake	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Clinton Community	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Clintonville	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cochrane-Fountain City	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Colby	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Coleman	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Colfax	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Columbus	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2) (ii)	(D)(2) (iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2) (iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
	Preliminary Scope of Work – Participation in each applicable Plan Criterion										
Name of LEA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Cornell	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Crandon	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Crivitz	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Cuba City	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Cudahy	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cumberland	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
D C Everest Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Darlington Community	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
De Forest Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
De Pere	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
De Soto Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Deerfield Community	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Delavan-Darien	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Denmark	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Dodgeland	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Dodgeville	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Dover #1	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Drummond Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Durand	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
East Troy Community	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Eau Claire Area											
Edgar	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Edgerton	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Elcho	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(i)	(D)(2)(ii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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Name of LEA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Eleva-Strum	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Elk Mound Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Elkhart Lake-Glenbeulah	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Elkhorn Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Ellsworth Community	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Elmbrook	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Elmwood	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Erin	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Evansville Community	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fall Creek	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Fall River	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Fennimore Community	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Flambeau	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Florence	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fond du Lac	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Fontana J8	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Fort Atkinson	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Fox Point J2	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Franklin Public	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Frederic	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Freedom Area											
Friess Lake	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Galesville-Ettrick-Trempealeau	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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Geneva J4	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Genoa City J2	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Germantown	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Gibraltar Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Gillett	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Gilman	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Gilmanton	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Glendale-River Hills	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Glenwood City	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Grafton	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Granton Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Grantsburg	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Green Bay Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Green Lake	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Greendale	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Greenfield	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Greenwood	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Gresham	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Hamilton	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Hartford J1	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hartford UHS	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hayward Community	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Herman #22	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Highland	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Hilbert	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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Name of LEA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Hillsboro	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Holmen	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Horicon	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Hortonville	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Howards Grove	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Howard-Suamico	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hudson	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Hurley	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Hustisford	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Independence	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Iola-Scandinavia	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Iowa-Grant	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Ithaca	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Janesville	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Jefferson	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Johnson Creek	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Juda	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Kaukauna Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Kenosha	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Kettle Moraine	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Kewaskum	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Kewaunee	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Kimberly Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Kohler	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
La Crosse	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
La Farge	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
	Preliminary Scope of Work – Participation in each applicable Plan Criterion										
Name of LEA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Lac du Flambeau #1	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ladysmith-Hawkins	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Lake Country	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Lake Geneva J1	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Lake Geneva-Genoa City UHS	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Lake Holcombe	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Lake Mills Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Lakeland UHS	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Lancaster Community	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Lena	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Linn J4	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Linn J6	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Little Chute Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Lodi	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Lomira	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Loyal	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Luck	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Luxemburg-Casco	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Madison Metropolitan	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Manawa	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Manitowoc	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Maple	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2) (ii)	(D)(2) (iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2) (iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
	Preliminary Scope of Work – Participation in each applicable Plan Criterion										
Name of LEA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Maple Dale-Indian Hill											
Marathon City	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Marinette	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Marion	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Markesan	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Marshall	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Marshfield	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Mauston	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Mayville	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
McFarland	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Medford Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Mellen	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Melrose-Mindoro	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Menasha	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Menominee Indian	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Menomonee Falls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Menomonie Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Mequon-Thiensville	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Mercer	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Merrill Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Middleton-Cross Plains	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Milton	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Milwaukee	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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Mineral Point	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Minocqua J1	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Mishicot	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Mondovi	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Monona Grove	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Monroe	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Monticello	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Mosinee	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Mount Horeb Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Muskego-Norway	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Necedah Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Neenah	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Neillsville	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Nekoosa	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Neosho J3	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
New Auburn	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
New Berlin	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
New Glarus	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
New Holstein	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
New Lisbon	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
New London	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
New Richmond	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Niagara	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Nicolet UHS	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Norris	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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North Cape	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Crawford	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
North Fond du Lac	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
North Lake	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
North Lakeland	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Northern Ozaukee	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Northland Pines	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Northwood	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Norwalk-Ontario-Wilton	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Norway J7	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Oak Creek-Franklin	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Oakfield	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Oconomowoc Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Oconto	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Oconto Falls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Omro	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Onalaska	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Oregon	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Osceola	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Oshkosh Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Osseo-Fairchild	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Owen-Withee	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Palmyra-Eagle Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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Name of LEA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Pardeeville Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Paris J1	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Parkview	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Pecatonica Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Pepin Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Peshtigo	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Pewaukee	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Phelps	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Phillips	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Pittsville	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Platteville	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Plum City	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Plymouth	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Port Edwards	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Port Washington-Saukville	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Portage Community	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Potosi	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Poynette	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Prairie du Chien Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Prairie Farm	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Prentice	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Prescott	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Princeton	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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Pulaski Community	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Racine	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Randall J1	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Randolph	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Random Lake	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Raymond #14	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Reedsburg	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Reedsville	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Rhinelander	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Rib Lake	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Rice Lake Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Richfield J1	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Richland	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Richmond	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Rio Community	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ripon Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
River Falls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
River Ridge	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
River Valley	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Riverdale	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Rosendale-Brandon	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Rosholt	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Royall	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Rubicon J6	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Saint Croix Central	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(i)	(D)(2)(ii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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Saint Croix Falls	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Saint Francis	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Salem	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Sauk Prairie	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Seneca	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Sevastopol	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Seymour Community	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Sharon J11	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Shawano	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Sheboygan Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Sheboygan Falls	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Shell Lake	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Shiocton	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Shorewood	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Shullsburg	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Silver Lake J1	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Siren	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Slinger	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Solon Springs	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Somerset	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
South Milwaukee	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
South Shore	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Southern Door County	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Southwestern Wisconsin	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2) (ii)	(D)(2) (iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2) (iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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Name of LEA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Sparta Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Spencer	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Spooner Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Spring Valley	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Stanley-Boyd Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Stevens Point Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Stockbridge	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Stone Bank	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Stoughton Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Stratford	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Sturgeon Bay	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Sun Prairie Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Superior	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Suring	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Swallow	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Thorp	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Three Lakes	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Tigerton	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Tomah Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Tomahawk	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Tomorrow River	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Trevor-Wilmot Consolidated	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Tri-County Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Turtle Lake	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Twin Lakes #4	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(i)	(D)(2)(ii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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Two Rivers	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Union Grove J1	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Union Grove UHS	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Unity	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Valders Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Verona Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Viroqua Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wabeno Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Walworth J1	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Washburn	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Washington	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Waterford Graded J1	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Waterford UHS	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Watertown	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Waukesha	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Waunakee Community	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Waupaca	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Waupun	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wausau	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wausaukee	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wautoma Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wauwatosa	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wauzeka-Steuben	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Webster	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
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West Allis	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
West Bend	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
West De Pere	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
West Salem	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Westby Area	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Westfield	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Weston	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Weyauwega-Fremont	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Weyerhaeuser Area	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wheatland J1	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
White Lake	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Whitefish Bay	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Whitehall	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Whitewater	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Whitnall	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wild Rose	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Williams Bay	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wilmot UHS	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Winneconne Community	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wisconsin Dells	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wisconsin Heights	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wisconsin Rapids	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Wittenberg-Birnamwood	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
	Preliminary Scope of Work – Participation in each applicable Plan Criterion										
Name of LEA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Wonewoc-Union Center	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Woodruff J1	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Wrightstown Community	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Yorkville J2	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: Downtown Montes	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: Milwaukee Colle	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: Central City Cy	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: Milwaukee Acad	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Non-district Charter Schools: BEAM	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: DLH Academy	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: 21st Century Pr	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: YMCA Young Leaders	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES

Participating LEAs	(D)(2)(ii)	(D)(2)(iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2)(iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
	Preliminary Scope of Work – Participation in each applicable Plan Criterion										
Name of LEA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA	Y / N / NA
Non-district Charter: Academy of Learning & Leadership	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: Capitol West Academy	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: Tenor High School	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: Seeds of Health	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	YES
Non-district Charter: Milwaukee Renaissance Academy	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Appendix 9: Wisconsin Stakeholder Letters of Support

Congress of the United States
Washington, DC 20510

May 27, 2010

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

Dear Mr. Secretary:

We write in support of the State of Wisconsin's Race to the Top application.

Wisconsin's application includes a number of proposals designed around Race to the Top's core reform areas, including: improving standards and assessments, developing great teachers and leaders, utilizing data systems to inform instruction, and turning around struggling schools. For example, the State has committed to adopting the Common Core standards that are currently being developed to better ensure that students are prepared for college or a career when they graduate high school. The State is also working to improve its assessment system. A more balanced system will improve the quality of assessments and provide more timely feedback to teachers so that they can improve their classroom instruction and better target individualized instruction to their students. Wisconsin has also worked collaboratively with organizations representing the State's teachers and leaders to encourage districts and teachers to improve the evaluation process for teachers. An improved process would provide more feedback to teachers in their early years in the profession and encourage districts to design evaluation systems that include student achievement as a component of those evaluations. Finally, the Governor recently signed into law legislation that would give the state superintendent power to intervene in Wisconsin's struggling school districts and that would provide additional support to these districts as they work to improve themselves.

The State's application also sets out bold goals that Wisconsin's teachers, principals, and other stakeholders will strive to achieve over the next few years with Race to the Top funding. Wisconsin has pledged to lower the number of high school dropouts in the state by fifty percent by 2014 and work to close the achievement gap and graduation rate gaps that exist in Wisconsin while significantly boosting college enrollment rates among Wisconsin's students. The State's education leaders have also developed plans to increase STEM opportunities for our state's students so that students are better prepared for careers in emerging industries in scientific and engineering fields.

Wisconsin's leaders reviewed the feedback that was provided to the State during Phase One of Race to the Top and worked collaboratively to improve the State's Phase Two application. According to the application, the State received significant support from local school districts,

local unions, and statewide organizations as a result of that collaboration. All of these groups will be instrumental in carrying out the reforms included in Wisconsin's application should the state receive Race to the Top funding.

We urge you to carefully review the State of Wisconsin's Race to the Top application and give it full and fair consideration based on the merits.

Sincerely,

Russell D. Feingold
United States Senator

Herb Kohl
United States Senator

Thomas E. Petri
Member of Congress

Ron Kind
Member of Congress

Tammy Baldwin
Member of Congress

Steve Kagen, M.D.
Member of Congress

Office of the Mayor
David J. Cieslewicz

Room 403
210 Martin Luther King, Jr. Boulevard
Madison, Wisconsin 53703-3345
PH 608 266 4611
FAX 608 267 8671
TTY/Textnet 866 704 2340
mayor@cityofmadison.com

May 25, 2010

Dear Governor Doyle and State Superintendent Evers:

The City of Madison fully supports the reform initiatives that comprise Wisconsin's Race to the Top Application. We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as students in other states and around the world, and these additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

We recognize that the success of our city is directly affected by the success of our public school system. In our continuous efforts to improve the efficacy and efficiency of our local government agencies, we have developed state-of-the-art empirical assessment and measurement tools like *Neighborhood Indicators* and *Madison Measures* to help guide our policies and decisions. While we support each of the goals outlined in Wisconsin's Race to the Top Application, we are particularly excited about the expansion of data collection, data analysis and assessment tools as proposed in Wisconsin's Race to the Top Application. We look forward to incorporating these school-based measures into our processes to ensure that the most effective programs are used to achieve the results our children deserve.

The City of Madison is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan. We look forward to working with you and will be pleased to answer any questions or provide any additional information to assist in these important efforts.

Sincerely,

David J. Cieslewicz
Mayor

DJC/cjp

MENOMINEE INDIAN TRIBE OF WISCONSIN
CHAIRMAN'S OFFICE
P.O. Box 910
Keshena, WI 54135-0910

Tuesday, May 25, 2010

Governor Jim Doyle
Office of the Governor
115 East State Capitol
Madison, WI 53702

Tony Evers, PhD
State Superintendent of Public Instruction
Department of Public Instruction
125 S. Webster Street, P. O. Box 7841
Madison, WI 53707-7841

RE: RACE TO THE TOP APPLICATION FOR WISCONSIN

Dear Governor Doyle and State Superintendent Evers:

The Menominee Indian Tribe of Wisconsin strongly supports the reform initiatives that comprise the Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin where students will be held to the same high standards as students in other states and around the world. These additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

The Menominee Indian Tribe has over 8,400 enrolled members with about half living on our Reservation. The Tribe recognizes the importance that education plays in trying to raise our members out of poverty. We believe that the Race to the Top funding could help with that tremendously.

Over 1,000 Menominee children attend the Menominee Indian Public School. The school does what it can to provide a quality education for our children, but lacks the resources and tools to help our children who face many problems. We believe our public schools are the type of schools that President Obama and Congress had in mind when they passed "Race to the Top."

In addition, the Menominee Indian Tribe operates our own tribal school with nearly 200 children attending kindergarten through eighth grades. We work hard to find the resources to prepare our children for a secondary education, but find there are never enough resources to do what we think could be done to improve the children's education. The "Race to the Top" funding could be of a valuable assistance here as well.

The Menominee Indian Tribe is committed to the "Race to the Top" reforms and we are ready to help implement the reforms laid out in the State's plan.

Should you wish to discuss this further, please contact me at the address above or you may call me at 715-799-5114 at your convenience.

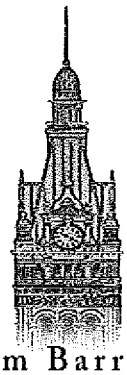
Respectfully,

Laurie Boivin

Laurie A. Boivin
Menominee Tribal Chairwoman

LAB: dab

Cc: File



Tom Barrett
Mayor, City of Milwaukee

May 24, 2010

Governor Doyle and Superintendent Evers:

I am writing to express my support for the reform initiatives that comprise Wisconsin's Race to the Top Application.

As Mayor of our State's largest city, I am very concerned about the state of our current school system and the effect that has on our children, families and the future success of our City and State. Over 70% of MPS 10th graders are not proficient in Math and 60% are not proficient in Reading on the State's tests. Recent results of the NAEP Trial Urban District Assessment revealed that MPS fourth graders trail almost every other district in reading. For every 2 students who graduate from MPS, one drops out, and 80% of graduates who attend the University of Wisconsin- Milwaukee need remedial coursework. We must reverse those trends and doing so requires bold reforms.

Under the Race to the Top plan, districts will be required to strengthen teacher mentoring and professional development and to establish evaluation systems for teachers and principals that incorporate student outcomes. The plan will also require MPS to turnaround its five worst struggling schools so that students in those schools can learn in a new or transformed environment which has the characteristics that are linked to success. With the assistance that the Race to the Top resources provide, this can become a model for how we address additional schools that are not providing our children with the opportunity for success they deserve.

I also fully support the establishment of a Wisconsin Initiative for Neighborhoods and Schools for Children (WINS for Children), which is modeled on the successful Harlem Children's Zone. I look forward to being part of making those centers a success. Another model that I am glad will be explored as part of the Race to the Top application

Sincerely,

Tom Barrett

Tom Barrett
Mayor

Office of the Mayor • City Hall • 200 East Wells Street • Milwaukee, Wisconsin 53202
(414) 286-2200 • fax (414) 286-3191 • mayor@milwaukee.gov

Oneida Tribe of Indians of Wisconsin

Post Office Box 365

Phone: (920) 869-2214

Oneida, WI 54155

Oneidas bringing several hundred bags of corn to Washington's starving army at Valley Forge, after the colonists had consistently refused to aid them.

UGWA DEMOLUM YATEHE
Because of the help of this Oneida Chief in cementing a friendship between the six nations and the colony of Pennsylvania, a new nation, the United States was made possble.

5-25-2010

Governor Doyle
State Capital
P.O. Box 7863
Madison, WI 53707

Dear Governor Doyle:

The Oneida Tribe of Indians of Wisconsin fully supports the reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as students in other states and around the world, and these additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

The Oneida Reservation is divided into five public school districts and a majority of our youth attends public schools. Ensuring our youth receive a quality education is vital to the continued prosperity of our great Nation. Furthermore, a portion of our mission states "The Oneida family will be strengthened through the values of our Oneida identity by providing housing, promoting education, protecting the land, and preserving the environment." The four reform areas Wisconsin has chosen will lead to student achievement, decreasing achievement gaps, increase high school graduation rates, and increase college enrollment rates and will serve as a strong foundation for our next generation of leaders.

The Oneida Tribe of Indians of Wisconsin is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan.

Sincerely,

Richard G Hill, Chairman

RAMAC

May 25, 2010

To: Governor Jim Doyle and State Superintendent Evers

The Racine Area Manufacturers and Commerce (RAMAC) is supporting the State of Wisconsin's efforts to obtain a "Race to the Top" grant for $250 million.

RAMAC's mission is:

- To strengthen and maintain a solid, diversified, economic base, one that ensures a healthy business climate and a prosperous, progressive community.
- To promote and protect the fundamentals of the private free enterprise system as the foundation of our nation.
- To help its members manage more effectively, efficiently and productively by excelling in the delivery of Personnel, Research and Management Training Services.
- To provide the necessary business leadership and service in cooperation with other public and private sectors aimed at improving the quality of life in the Racine area.

The State goals are as follows: student achievement, decreasing achievement gaps, increasing high school graduation rates, and increasing college enrollment rates. Their main proposals to achieve these goals are:

- Raising standards -- joined consortium with 48 other states to have internationally benchmarked standards; will implement in June.
- More useful assessments -- changes to our testing process to provide more meaningful information to teachers
- Expanded data system -- includes the ability to tie students to teachers so that we can ultimately learn what works and what doesn't in education.
- More support for teachers -- both for new teachers through mentoring and for other teachers through coaching.
- Increased capacity at the state and regional level to assist with instructional improvement efforts including providing training for coaches and mentors.
- An emphasis on providing additional supports, particularly in early childhood and middle school to high school transition, in the largest and failing districts to ensure that Wisconsin narrows its achievement gap and raises overall achievement.
- Turning around our lowest performing schools -- enhancing the capacity for MPS and the state to support that effort.
- Providing wraparound services in specific neighborhoods in Milwaukee as a demonstration project to show what can be done to get kids in poverty to achieve at higher levels.
- Investing in STEM -- Building off our currently successful Science, Mathematics, Engineering and Technology efforts to ensure that more students have access to high-quality STEM courses and training.

RAMAC believes that our mission coincides with the State plan and, therefore, supports the effort.

Sincerely,

(b)(6)

Roger Caron
President

RACINE AREA MANUFACTURERS AND COMMERCE
300 5th Street, Racine, WI 53403
Ph. (262) 634-1931 Fax (262) 634-7422
www.racinechamber.com

Red Cliff Band Of Lake Superior Chippewas

"The Hub Of The Chippewa Nation"

RED CLIFF TRIBAL COUNCIL

May 25, 2010

Dear Governor Doyle and State Superintendant Evers,

The Red Cliff Band of Lake Superior Chippewa fully supports the reform initiatives that comprise Governor Doyle and State Superintendant Evers Race to the Top application for Wisconsin. We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as those in other states and around the world, and these additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

The Red Cliff Tribe and its Division of Education look forward to further dialogue with you and Superintendant Evers that will ensure that this initiative addresses the unique challenges facing the Tribes of Wisconsin. We are most interested in identifying ways that will address the statistical gap that exists between Native American students and all other races of people.

Our Tribe is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan.

Sincerely,

(b)(6)

Rose Soulier, Chairperson

Cc: Tribal Council
Delores Gokee-Rindal, Administrator Division of Education
Mark Montano, Director of Tribal Operations

88385 PIKE ROAD, HWY 13 • BAYFIELD, WISCONSIN 54814 • (715) 779-3700 • FAX (715) 779-3704

St. Croix Chippewa Indians of Wisconsin

24663 Angeline Avenue • Webster, WI 54893 • (715) 349-2195 • Fax (715) 349-5768

May 25, 2010

Governor Jim Doyle,
115 East, State Capitol,
Madison, WI. 53702

Re: Race to the Top Application for Wisconsin

Dear Governor Doyle

The St. Croix Chippewa Indians of Wisconsin fully supports the reform initiatives that you and State Superintendent Evers; in applying for $250 million from Congress.

Through the American Recovery and Reinvestment Act, President Obama and Congress provided $4 billion in competitive grant funding to states that move forward with innovation and reform in education. We are excited about this new era for education in Wisconsin where all students will be held to the same high standards as students in other states and around the world; and the additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in Wisconsin.

The St. Croix Chippewa Indians of Wisconsin is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the State of Wisconsin's Plan.

Sincerely,

(b)(6)

Lewis Taylor, Chairman
St. Croix Chippewa Indians of Wisconsin

Sokaogon Chippewa Community

3051 Sand Lake Road, Crandon, WI 54520
Phone: (715) 478-7500 * Fax: (715) 478-5275

www.sokaogonchippewa.com

May 25, 2010

Dear Governor Doyle and State Superintendent Evers:

The Sokaogon Chippewa Community fully supports the reform initiative that comprises Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as students in other states and around the world, and these additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

It is the mission of the Sokaogon Chippewa Community to provide "quality educational opportunities" to its children and to assist the State of Wisconsin in all its efforts to provide those opportunities. As we are all aware, this is only possible through skilled and well-trained educators. Skills which therefore, are delivered to all students through this unique, fact-based state plan as outlined in Goal (D) *"To provide structures and resources that will increase teacher and principal effectiveness and encourage high-quality teacher and principal evaluations."*

The Sokaogon Chippewa Community is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the State plan.

Sincerely,

(b)(6)

Garland T. McGeshick
Chairman

Ga-na-waji Ga-wi-nug Way-ji-mooki-ji-wung Yi-ewe-meing-gun-a-sepii

SONDY POPE-ROBERTS
STATE REPRESENTATIVE
79TH ASSEMBLY DISTRICT

May 26, 2010

Governor Jim Doyle
115 East, State Capitol
Madison, WI 53707

State Superintendent Tony Evers
125 S. Webster St.
Madison, WI 53707

Dear Governor Doyle and State Superintendent Evers,

I am writing to express my support for Wisconsin's Race to the Top Phase Two application.

The Race to the Top program has acted as a challenge, and a wake-up call, to encourage states to move towards research-based solutions to improving student achievement. Wisconsin's application and the legislation enacted this session show a strong commitment to ensuring our students have the best opportunities to succeed in our rapidly changing world.

I have had the distinct opportunity of ushering the policy our state enacted to strengthen this application through the committee process and witnessed the hard work you both put forth. Through the process, we had the unique opportunity to work together with state and local education stakeholders to craft real reform that will increase student outcomes and help to strengthen our learning communities. The unified coalition of educators, school board members, administrators, parents, and elected officials that helped to form this application is now determined to carry out the reforms. The additional federal funding at stake will allow Wisconsin to fully implement the desired changes and could have an immediate impact on classroom performance.

Regardless of the Race to the Top program, the goals outlined in this application are crucial to improving academic success. As Chair of the Assembly Committee on Education, I fully support this initiative and am prepared to assist you in any capacity necessary.

Wisconsin eagerly awaits the outcome of this application.

Sincerely,

Sondy Pope Roberts

Representative Sondy Pope-Roberts
Chair, Assembly Education Committee

Capitol Office: P.O. Box 8953, Madison, WI 53708-8953 ▫ 608-266-3520 ▫ Fax: 608-282-3679 ▫ E-Mail: Rep.Pope-Roberts@legis.wi.gov
District: 4793 Delmara Road, Middleton, WI 53562 ▫ 608-829-2750 ▫ Toll-free: 888-534-0079

AFT-Wisconsin
6602 Normandy Ln
Madison WI 53719

Dear Governor Doyle and State Superintendent Evers:

The American Federation of Teachers-Wisconsin fully supports the reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as students in other states and around the world, and these additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

AFT-Wisconsin represents over 17,000 workers throughout the state of Wisconsin, including over 4,000 working in our public schools. AFT-W members are proud of the role they play in shaping the future of Wisconsin's children every day in schools across the state. We are pleased to have worked in collaboration with other stakeholders to ensure that the Race to the Top application supports the professionals working in the classroom who will be on the front lines ensuring success for our students. We look forward to continuing to work together to implement these important reforms.

Our organization is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan.

Sincerely,

(b)(6)

Bryan Kennedy
President
AFT-Wisconsin

AWSA
4797 Hayes Road, Suite 103
Madison, WI 53704
608-241-0300
www.awsa.org

May 21, 2010

The Honorable Jim Doyle
Office of the Governor
PO Box 7863
Madison, WI 53707-7863

Mr. Tony Evers, State Superintendent
Department of Public Instruction
PO Box 7841
Madison, WI 53707-7841

Dear Governor Doyle and State Superintendent Evers:

The Association of Wisconsin School Administrators (AWSA) enthusiastically supports the Wisconsin Race to the Top Application. The opportunity to leverage federal resources to take proven initiatives to scale and to develop new strategies for improving student learning is incredibly exciting.

AWSA is the school principals association in Wisconsin. AWSA is how school leaders come together to grow professionally, share information, and advocate for sound educational policy.

Wisconsin's Phase II application is both stronger and clearer than our Phase I submission. The plan's focus on attracting, supporting and developing effective school leaders and teachers will improve student learning in the Badger State. AWSA is committed to the recommendations and stands ready to support the implementation of this ambitious application.

Sincerely,

(b)(6)

Jim Lynch
Executive Director

Bad River Band of Lake Superior Chippewa

Chairman's Office P.O. Box 39, Odanah, WI 54861 (715) 682-7111 ext. 1503

Dear Governor Doyle and State Superintendent Evers:

The Bad River Tribe fully supports the reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, and that these additional federal resources will be directed to research based initiatives that have proven to positively impact and improve the overall quality of education in our great State of Wisconsin.

The Ashland School District is the primary provider of education to Bad River Tribal youth. There are 492 Native American students within the District who makeup over 25% of the total student population.

The Mission of the Bad River Tribe is to work progressively and collaboratively with the Ashland School District to ensure support and monitoring of academic achievement, attendance, graduation rates, and transition to higher educational settings.

The Bad River Tribe and the School District of Ashland have resolved to work together and make it a priority to eliminate the academic achievement gap between Native and non Native students. To address the academic achievement gap both entities have established a task force aimed at improving the direct relationships between teaching staff, community members and families in Bad River. This group has collaborated to create several district-wide projects including a Youth & Family Open House and a Native Youth Newsletter. The group has also initiated and implemented a bully-proofing project, Creating Caring Communities at the Ashland High School. In addition, the State of Wisconsin Department of Public Instruction has identified the Ashland School District as having a disproportionate number of Native American students referred to Special Education Services. As a means for eliminating this problem, the district has identified two goals that are being worked on collaboratively. The goals include improving communication between the Bad River community and staff district-wide and improved means of collecting data and interpreting this data so it can be used in a meaningful way.

Through the formation of a partnership, the Bad River community and school district staff have worked to recognize Native Student achievement, improve transition for Native students between childhood & adulthood and improve communication between families, community and school staff. Our Tribal organization embraces the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan.

Sincerely,

Michael Wiggins Jr.
Bad River Tribal Chairman

The Chamber
Eau Claire Area Chamber of Commerce

101 N. Farwell Street, Suite 101 ■ P.O. Box 1107 ■ Eau Claire, WI 54702-1107 ■ Ph. (715) 834-1204 ■ Fax. (715) 834-1956 ■ www.eauclairechamber.org

March 25, 2010

Governor Jim Doyle
Office of the Governor
115 East State Capitol Building
Madison, WI 53702

Dear Governor Doyle,

The Eau Claire Area Chamber of Commerce fully supports the reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as students in other states and around the world, and these additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

Our three year Strategic Plan has five areas and states the following for Education:

Education – Advocate for and support a strong education system in the Chippewa Valley.

- Review education issues as they arise and educate members. Create task forces or committees, on an as-needed basis, to address the issues.
- Partner with local school districts and post-secondary institutions in programs to enhance skills and recognize achievement of the area's future workforce.
- Advocate for appropriate funding of all public education systems.
- Communicate to members the accomplishments and issues of the local education institutions.

Our organization is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan.

Sincerely yours,

Bob McCoy, CCE
President & CEO

Chamber of Commerce
LA CROSSE AREA

May 21, 2010

Office of Governor Jim Doyle
115 East, State Capitol
P.O. Box 7863
Madison, WI 53707

Dear Governor Doyle and State Superintendent Evers:

The La Crosse Area Chamber of Commerce is pleased to support the reform initiatives included in the State's application for Race to the Top funding for the State of Wisconsin. This is a new era for education in Wisconsin, where students will be held to the same high standards in other states and around the world. It will better prepare our students to become productive citizens in all segments of a well educated and trained workforce.

The La Crosse Area Chamber is an organization made up of 900 members of the business community whose efforts make the area a better place to live, work and do business. We are pleased that our local school district is engaged in the goals outlined in the Race to the Top application and support the reforms laid out in the state plan.

Sincerely,

Dick Granchalek
President

Connecting you with people you need to know
712 Main Street ■ La Crosse, WI 54601
608-784-4880 ■ FAX 608-784-4919
E-mail: lse_chamber@centurytel.net www.lacrossechamber.com
Rivers region

THE
CHAMBER
SUPERIOR-DOUGLAS COUNTY AREA
205 Belknap Street · Superior, WI 54880 · (715) 394-7716 · Fax (715) 394-3810
www.superiorchamber.org

May 24, 2010

State of Wisconsin Governor's Office
Honorable Governor James Doyle
115 East, State Capitol
Madison, WI 53702

Dear Governor Doyle:

The Chamber of Superior and Douglas County fully supports the reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as students in other states and around the world, and these additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

Obtaining the Race to the Top funding will support the initiatives that are currently underway in Superior. At a time when the State has needed to reduce the amount of general funding for schools in order to balance their budget, the Superior district has maximized the AARA funds to provide staff development and support to strengthen our teaching staff and ultimately increase student achievement.

The Race to the Top funds will allow our district to move more quickly toward the common goals the Federal Government and the School District Of Superior share. Those goals are:

- Implement a curriculum aligned to the Common Core Standards and ACT readiness standards
- Implement an effective assessment system to analyze and meet student needs more accurately
- Effectively support and evaluate teaching and administrative staff to ensure the best instruction is happening in all classrooms for all students
- Provide ongoing quality professional development

The Chamber is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan.

Sincerely,

David W Minor

David W. Minor
President/CEO

Engineers & Scientists
OF MILWAUKEE

May 19, 2010

Office of Governor Jim Doyle
115 East, State Capitol
PO Box 7863
Madison WI 53707

Dear Governor Doyle and State Superintendent Evers:

As the Executive Director of Engineers & Scientists of Milwaukee (ESM), I am writing in support of the STEM-related reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin.

We are excited about this new era for education in Wisconsin, where students will be held to higher standards, consistent with those of students around the world, and that these additional federal resources will be directed to implementing initiatives that research has shown will improve the overall quality of education in our state.

Who We Are. ESM was founded in 1905. Originally conceived as a "cooperative body, broad enough in scope to meet the needs of all engineers in the community", ESM has evolved into Wisconsin's leading technical organization providing and/or promoting educational outreach programs emphasizing STEM. Our mission is to accelerate regional prosperity by:

- Creating STEM awareness in the community
- Engaging students to advance STEM competencies
- Optimizing the effectiveness of STEM programs
- Leading a collaborative approach to STEM talent development

What We Do. We accomplish this mission through the direct management of educational programs (including Future City Competition, Rube Goldberg Machine Contest, and Website Design Camp), annual events (including the Engineers Week banquet, ESM Scholarship golf outing, and the sySTEMnow conference), and our awards program (including Engineer of the Year and the coveted "Stemmy" award for excellence in STEM).

We also actively support and promote affiliated STEM programs ranging from the Badger State Science and Engineering Fair, the *FIRST* family of robotics programs, 4-H Gateway Academies, iFAIR, STEM Fest, and of course, Project Lead The Way (PLTW).
How We Do It. ESM views the STEM education challenge (and its ultimate solution) holistically; not as an issue which belongs solely to PK-12 education, but rather as a talent

development continuum in which PK-12, higher education, and the public and private sector STEM workforce are inter-dependent constituencies.

ESM connects resources and needs by creating partnerships between the private and public sector STEM workforce and the education community. We strive to fully engage the workforce in the STEM initiative, recognizing that they are the end user in the STEM talent pipeline, they have reliable and available resources, and they have been vastly under-utilized and under-leveraged in the development of STEM talent.

We encourage our partners to commit to building tomorrow's STEM workforce through advocacy, funding, in-kind services, and/or volunteerism.

There is strong potential to scale up ESM's regionally-based successes in the context of the overall STEM strategy outlined in the Race to the Top application. ESM stands ready to help implement the STEM-related reforms laid out in the state plan; the goals of which are very consistent with our mission.

Wisconsin's future prosperity and competitive position will be won or lost based on the quality of our human capital and our collective capacity for leadership in innovation. A successful Race to the Top proposal will help us get there. Accordingly, we are honored to support this application.

Sincerely,

(b)(6)

Van Walling, P.E
Executive Director

ESM Board of Directors
2009-10

President	Jerome Chudzik	GRAEF (retired)
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Director	James Wilke	Reinhart Boerner Van Deuren

May 19, 2010

Office of Governor Jim Doyle
115 East, State Capitol
PO Box 7863
Madison, WI 53707

Dear Governor Doyle and State Superintendent Evers:

Accomplished inventor Dean Kamen founded *FIRST* (For Inspiration and Recognition of Science and Technology) in 1989 to inspire an appreciation of science and technology in young people.

The *FIRST* mission is to inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.

On behalf of *FIRST* LEGO League partner Discovery World, *FIRST* Tech Challenge partner UW-Milwaukee, and the *FIRST* Robotics Competition Planning Committee, and more importantly, on behalf of the thousands of Wisconsin students enthusiastically engaging in *FIRST* programs, the **Wisconsin's *FIRST* Executive Advisory Board** extends its support to the reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin.

We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as students in other states and around the world, and these additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

The **Wisconsin *FIRST* Executive Advisory Board** believes that the FIRST family of robotics programs (*FIRST* LEGO League for Grades 4-8, *FIRST* Tech Challenge for Grades 9-12, and *FIRST* Robotics Competition for Grades 9-12) plays a key role in the STEM education continuum by complementing and reinforcing the critical thinking and problem solving skills learned in the classroom.

The **Wisconsin *FIRST* Executive Advisory Board** finds the STEM-related goals of the state's Race to the Top application to be consistent with *FIRST*'s global mission, as well as with our

state-specific mission for *FIRST*. We are convinced that our robotics programs, implemented and delivered in the context of the overall STEM strategy outlined in the application will help build a reliable talent pipeline producing Wisconsin's next generation of innovators.

Sincerely,

Wisconsin *FIRST* Executive Advisory Board

Craig Coursin
MSI General Corporation

Richard Koehl
Kohler Company

Susan Lawrence
FIRST

Patricia Ramirez
Rockwell Automation

Steven Roehm
GE Healthcare

Van Walling
ESM

Eileen Walter
Rockwell Automation

POTAWATOMI
(Keeper of the Fire)

Forest County Potawatomi Community
P.O. Box 340, Crandon, Wisconsin 54520

May 24, 2010

Forest County Potawatomi Community
PO Box 340
Crandon, WI 54520

Dear Governor Doyle and State Superintendent Evers;

The Forest County Potawatomi fully supports the reform initiatives that comprise Governor Doyle and Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as students in other states and around the world. These additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

The Forest County Potawatomi Community has long held education as a high priority, actively working with our local schools to increase student achievement. The goals and objectives outlined in Wisconsin's Race to the Top plan would augment these efforts tremendously and we are in full support.

The Forest County Potawatomi Community is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan.

Sincerely;

(b)(6)

Harold "Gus" Frank
Chairman, Forest County Potawatomi Community

GE Healthcare

4855 W. Electric Ave
Milwaukee WI 53219
USA

May 20, 2010

Office of Governor Jim Doyle
115 East, State Capitol
PO Box 7863
Madison, WI 53707

Dear Governor Doyle and State Superintendent Evers:

GE Healthcare fully supports the reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin. We understand the state's plan to achieve these goals and agree that multiple facets of the system need to be addressed and improved.

It is vital to the State of Wisconsin and the future of the US that a significant emphasis be placed on the STEM components of this plan.

GE Healthcare has been engaged for a many years in the development of multi-generational technology leaders. In Southeastern Wisconsin our volunteers spend hundreds of hours each year supporting classroom and after school programming in STEM.

Our focus has been on Project-Lead-The-Way and FIRST Robotics, these are the two finest programs we have seen and they are delivering! We strongly encourage you to incorporate and expand those programs so that ALL Wisconsin youth have an opportunity to be involved.

GE Healthcare is extremely excited about Wisconsin's efforts with respect to Race-to-the-Top and particularly the STEM-specific component of the state plan. We will continue our active engagement in creating the innovators of the future!

Sincerely,

(b)(6)

Dr William Berezowitz
VP & GM Imaging Subsystems
GE Healthcare

GREAT LAKES

May 25, 2010

Dear Governor Doyle and State Superintendent Evers:

Great Lakes Higher Education Corporation and Affiliates (Great Lakes) fully supports the reform initiatives that comprise Governor Doyle and Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, where our students will be held to the same high standards as students in other states and around the world. These additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

For more than 40 years, Great Lakes' support of statewide college access initiatives has been an integral part of our responsibilities under the U.S. Higher Education Act. But our commitment to Wisconsin goes beyond that. To date, Great Lakes has committed more than $46 million in funding, support, and resources towards college access and completion programs benefiting students, families, and ultimately the State of Wisconsin.

Great Lakes is dedicated to helping people build brighter futures through education. We work to identify established college access programs whose leadership shares our commitment to increasing access to higher education for economically disadvantaged students and families across Wisconsin. By providing vital funding and support, we seek to help these programs sustain, grow, and replicate their efforts and services – leveraging their energy and innovation to change more lives for the better.

The reform initiatives outlined in the Race to the Top Application for Wisconsin are directly in line with Great Lakes' college access goals. Specifically, decreasing achievement gaps and increasing college enrollment rates are shared goals among Great Lakes, the community organizations we fund, and the State of Wisconsin. Designing useful assessments and expanding the state's data system will provide the necessary evaluation tools we need to work together to identify programs and approaches that are providing real results for Wisconsin's students.

Our organization is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan.

Sincerely,

(b)(6)

Richard D. George
President and Chief Executive Officer

GREAT LAKES HIGHER EDUCATION CORPORATION AND AFFILIATES
2401 INTERNATIONAL LANE | MADISON, WI 53704-3192
PHONE: 608.246.1600 | WEB: MYGREATLAKES.ORG

Greater Beloit
Chamber of Commerce

May 25, 2010

To: Governor Doyle and State Superintendent Evers

The Greater Beloit Chamber of Commerce (GBCC) fully supports the reform initiatives that comprise Wisconsin's *Race to the Top* Application.

The GBCC has consistently evidenced its backing for efforts to increase the overall quality of public education within the State of Wisconsin generally and within our region in the State specifically. Our support of the *Race to the Top* reform initiatives is an extension of this backing.

We believe the receipt of additional federal resources through the *Race to the Top* Program would greatly assist local educational authorities in the State of Wisconsin by providing them with needed resources to add to the limited resources which are currently available.

In addition, the School District of Beloit, as one of the largest school districts in the State, would have the opportunity to receive additional funds to implement further reform programs.

The GBCC is a Sec. 501(c)(6) corporation that also operates a Sec. 501(c)(3) charitable foundation. Our membership totals close to 400 businesses, non-profits and educational entities. Our business members range from international companies to small independently owned retail establishments. Our non-profit members provide all types of programs, from community assistance bodies to arts and cultural organizations. Our educational members include local school districts, technical colleges, private liberal arts colleges as well as private and public universities.

The support of the GBCC for efforts to increase the overall quality of public education is not a hollow statement. The activities of representatives of the Chamber who consistently participate in programs to deliver quality education show that we "walk the walk and talk the talk."

Representatives of the GBCC are currently involved with the School District of Beloit's Strategic Planning Initiative. This Initiative is in the process of analyzing final recommendations that in large part are based on the reform areas of Wisconsin's *Race to the Top* Plan (standards and assessments, data systems, developing great teachers and leaders, and turning around the results in the lowest-performing schools in the District.)

The work being done within the Strategic Planning Initiative also establishes ambitious but achievable targets in the areas of:

500 Public Avenue
Beloit, Wisconsin 53511
www.greaterbeloitchamber.com
P 608.365.8835
F 608.365.6850
E info@greaterbeloitchamber.com

- heightening student achievement,
- reducing achievement gaps,
- growing high school graduation rates, and
- increasing college enrollment rates.

The results of this Initiative will be turned over the Beloit School Board this summer. The Initiative is intended to provide the platform for the Beloit School District to implements reforms that can address, and solve, the areas for reform as are identified in the Wisconsin *Race to the Top* Program.

In addition to our work on the SDB Strategic Planning Initiative, we participate with the Greater Beloit Economic Development Corporation in the activities of the Business/Education Partnership. This partnership promotes a number of programs within the School District of Beloit, with emphasis on the Beloit Memorial High School, that concentrate in conducting mock interviews for students, partnering with local non-profit organizations to help minority students perform better and improve their graduation rate, and helping motivate students through visits to local businesses.

In summary, the Greater Beloit Chamber of Commerce is committed to the *Race to the Top* reforms and stands ready to help implement the reforms laid out in the state plan should the State of Wisconsin be successful in its application.

Sincerely yours,

(b)(6)

Randall Upton
President

GREATER MADISON
CHAMBER OF COMMERCE

Greater Madison Chamber of Commerce Letter of Support for the State of Wisconsin Race to the Top Application

615 E. Washington Avenue, Madison, WI 53703

May 21, 2010

Dear Governor Doyle and State Superintendent Evers:

The Greater Madison Chamber of Commerce (GMCC) supports your Race to the Top Application for the State of Wisconsin. The Race to the Top Fund is an excellent opportunity to strengthen our educational institutions by investing in innovative practices that give students the 21st century skills needed to compete in the global marketplace.

The role of the GMCC is to support enlightened economic growth, positioning the Madison region as a globally competitive place to live, work, play and do business. A crucial component to our success as a community and our ability to grow and retain jobs is to provide the best educational opportunities possible for our children.

Addressing the four target areas of this application – student achievement, decreasing achievement gaps, increasing high school graduation rates, and increasing college enrollment rates – will improve our economic competitiveness.

We are particularly pleased to see that funds will be used to ensure students have access to Science, Technology, Engineering and Mathematics (STEM) programs, whose primary goal is to enable the United States to remain an economic and technological leader.

The GMCC supports your application and welcomes the opportunity to assist your efforts.

Sincerely,

Jennifer Alexander

Jennifer Alexander
President, GMCC

615 EAST WASHINGTON AVE. • P.O. BOX 71 • MADISON, WI 53701-0071
WWW.GREATERMADISONCHAMBER.COM • T:608.256.8348 • F:608.256.0333

Wisconsin State Senate
John Lehman
Senator – 21st District

State Capitol P.O. Box 7882 Madison, Wisconsin 53707-7882 (608) 266-1832 Toll-free: 1-866-615-7510

May 25, 2010

Governor Jim Doyle
115 East, State Capitol
Madison, WI 53707

State Superintendent Tony Evers
125 S. Webster St.
Madison, WI 53707

Dear Governor Doyle and Superintendent Evers,

I am writing today to express my support of Wisconsin's Race to the Top application.

President Obama's challenge to the states has led to a strong bi-partisan legislative effort to strengthen Wisconsin schools. This session, we worked closely with the Department of Public Instruction, the Governor, and educational stakeholders at the state and local level to craft policies that will improve student outcomes.

The reform legislation that we passed this session will make a huge difference in schools across our state.

- We eliminated the prohibition on using student standardized test scores in teacher evaluations and require school districts to develop teacher evaluation plans. (Senate Bill 372)
- The State Superintendent is now vested with statutorily granted powers to allow intervention in severely underperforming schools. This change, which was crafted with all stakeholders at the table, provides parents, school leaders and the state with more tools to work together to make improvements. (Senate Bill 437)
- We strengthen our charter school law by requiring all school districts establishing charter schools to refer to nationally recognized charter school quality standards. (Senate Bill 373)
- New state law authorizes increased data sharing and study of student achievement data between K-12, technical schools and UW schools. (Senate Bill 371)

The significant federal funding associated with Race to the Top would greatly help Wisconsin execute our research-proven plan to improve the quality of our public schools, help our teachers do their jobs more effectively, and increase student achievement.

This is an historic moment where our Governor, Legislature, State Superintendent, local school boards, teachers unions, and parents are standing together for the sake of our children. As chair of the Senate Education Committee, I am ready to support full implementation of these reforms.

Sincerely,

State Senator John Lehman
Chair, Senate Education Committee

Fax: (608) 267-6793 E-Mail: sen.lehman@legis.wisconsin.gov Home: 708 Orchard Street Racine, WI 53405 (262) 632-3330

KABA
KENOSHA AREA BUSINESS ALLIANCE

600 52nd Street, Suite 120
Kenosha, WI 53140
P 262.605.1100
F 262.605.1111

May 21, 2010

The Honorable Governor Jim Doyle and State Superintendent Tony Evers
State of Wisconsin
State Capitol Room 115 East
Madison, WI 53702

RE: Race to the Top

We are pleased to write this letter, and extend our offer, of support for Wisconsin's Race to the Top application. Our organization serves as Kenosha County's economic development organization and employers association and has a vested interest in the quality of Wisconsin's schools. The primary objectives of the Race to the Top program are critical areas for the State's largest urban school districts, including Kenosha Unified. As our organization works to sustain and expand the area's economic base, it is clear that high performing school systems are critical to the economic health and prosperity of Wisconsin.

Wisconsin's Race to the Top application promises to provide significant resources to the State's largest school systems to address major issues such as closing the achievement gap, early childhood initiatives, teacher development, and the expansion of STEM curriculum. We strongly support these initiatives and recognize how important they are to Kenosha and Wisconsin. Please contact me and let us know what else we can do to support and assist you with this grant application and its successful implementation. Thank you.

Sincerely,

(b)(6)

Todd Battle
President

LAC COURTE OREILLES TRIBAL GOVERNING BOARD

Pride Of The Ojibwa
13394 W Trepania Road
Hayward • Wisconsin • 54843
PHONE (715) 634-8934 • FAX (715) 634-4797

May 24, 2010

The Honorable Jim Doyle
Governor – State of Wisconsin
PO Box 7863
Madison WI 53707-7863

Mr. Tony Evers
State Superintendent of Public Instruction
PO Box 7841
Madison WI 53707-7841

Dear Governor Doyle and Superintendent Evers:

The Lac Courte Oreilles Tribal Governing Board/School Board fully supports the reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as students in other states and around the world, and these additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

It is the mission of the Lac Courte Oreilles Ojibwe School to provide the proper guidance to maximize the spiritual, cultural, intellectual, physical, emotional, social and well being of each individual, to ensure that all who attend our school will become productive and contributing citizens of the LCO community, state, nation and world in their own unique way.

Though we are a private school, a tribally controlled school funded through a Grant with the U.S. Bureau of Indian Education, our school has adopted the standards of the State of Wisconsin and has reached AYP for five years. Yet, we are deeply concerned about what happens to our students after they leave our school and their continued success in further education. We need to increase our college enrollment and success rates. We need to take a closer and longer-range look at assessment reports to assist us in preparing our children to become productive and contributing citizens of the Lac Courte Oreilles Ojibwe community and the State of Wisconsin. We believe that the Race to the Top Initiatives, with a focus on Science, Technology, Engineering, and Mathematics (STEM) can provide great assistance for teachers and students to meet the challenges our students face at the college level.

Our organization is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan.

Sincerely,

(b)(6)

Brian Bisonette, Secretary/Treasurer
Lac Courte Oreilles Tribal Governing Board/School Board

JEROME "BROOKS" BIG JOHN
TRIBAL CHAIRMAN

May 24, 2010

Lac du Flambeau Band of Lake
Superior Chippewa Indians
P.O. Box 67
Lac du Flambeau, WI 54538

Dear Govoner Doyle and State Superintendent Evers:

The Lac du Flambeau Tribe fully supports the reform intiatives that compromise Govoner Doyle And the State Superintendent Evers' Race to the Top Application for Wiscinsin. We are excited About this new era for education in Wisconsin, where students will be held at the same high standards as students in other states and around the world, and these additional federal resources will be directed to intiatives that research has shown will iprove the overall quality of education in our state.

Our organization is committed to the Race to the Top reforms and stands ready to help implement reforms laid out in the state plan.

Sincerely,

(b)(6)

J."Brooks " BigJohn, President
Lac du Flambeau Band of Lake Superior
Chippewa Indians

Lac du Flambeau Band
of Lake Superior Chippewa Indians
P.O. Box 67 - Lac du Flambeau, Wisconsin 54538 • (715) 588-3303 • FAX# - (715) 588-7930

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

May 19, 2010

Dear Governor Doyle and State Superintendent Evers:

The University Research Park is fully supportive of Wisconsin's application for the "Race to the Top" initiative proposed by President Obama in the American Recovery and Reinvestment Act. It is my understanding that our state is applying for a competitive grant in the amount of $250 million. The plan is focused on four major reform areas including: standards and assessments, data systems, great teachers and leaders, and turning around the lowest performing schools. In the final plan, Science, Technology, Engineering, and Math improvement efforts will be addressed.

The University Research Park is a world class science and technology facility that provides infrastructure for technology based companies that are spin off of the University of Wisconsin-Madison. As such, we are very interested in helping to improve our K-12 education system in Wisconsin, as it provides the future workforce for our science and technology companies in the University Research Park. The current park houses more than 100 companies, which employ close to 4,000 highly skilled employees. The secret to have successful companies is to ensure that we have the workforce capacity to work in those companies. With this grant, the State of Wisconsin would work to achieve goals of raising standards, improving our assessment methodology, turning around the lowest performing schools, and investing in STEM education.

University Research Park is committed to improving the economy by helping to grow good companies and create good jobs. We also look forward to helping our state to do what we can to improve education quality for our students. The "Race to the Top" grant program will help us make an important first step in that effort.

Best Wishes,

(b)(6)

Mark D. Bugher

Director

510 Charmany Drive
Suite 250
Madison, WI 53719

P. 608.441.8000
F. 608.441.8010

universityresearchpark.org

UNIVERSITY OF WISCONSIN SYSTEM

Office of the President

1720 Van Hise Hall
1220 Linden Drive
Madison, Wisconsin 53706-1559
(608) 262-2321
(608) 262-3985 Fax

email: kreilly@uwsa.edu
website: http://www.uwsa.edu

May 25, 2010

Governor Jim Doyle
State of Wisconsin
PO Box 7863
Madison, WI 53707-7863

State Superintendent Tony Evers
Department of Public Instruction
PO Box 7841
Madison, WI 53707-7841

Dear Governor Doyle and State Superintendent Evers:

Thank you for the opportunity to provide a letter in support of the reform initiatives that comprise Wisconsin's Race to the Top application. As you know, the University of Wisconsin System is one of the largest systems of public higher education in the country, serving some 178,000 students each year. Additionally, based on yearly production data, the UW System contributes over 60% of the new educators who prepare to enter the state's PK-12 workforce. Given the impact our institutions have on the state, we are truly excited to be active partners in this effort.

In reviewing the application, it was clear to me that the goals of Race to the Top are aligned with the mission of the University of Wisconsin System. Our *Growth Agenda for Wisconsin* has three goals: to produce more well-prepared college graduates, to help create new 21st century Wisconsin jobs, and to strengthen local communities. Our goal is to strengthen Wisconsin's knowledge economy by opening the doors of the university to talented students from across Wisconsin, regardless of background.

Many *Growth Agenda* initiatives complement one or more of the Race to the Top target areas. For example, as the PK-12 system is working to adopt the English Language Arts Common Core Standards and the Mathematics Common Core standards, faculty from our institutions are partnering with local school teachers to create a more coherent alignment of the middle and high school curriculums with the courses needed for college access and success.

The UW System is committed to the reforms that are detailed in Wisconsin's Race to the Top application, and we stand ready to help implement the various initiatives laid out in the state plan.

Sincerely,

Kevin P. Reilly
President

VARC
Value-Added Research Center

Office of Governor Jim Doyle
State Capitol 115 East
Madison, WI 53707

May 26, 2010

Dear Governor Doyle,

I am writing to confirm our enthusiastic support of and deep commitment to the goals of Wisconsin's Race to the Top proposal. The Value-Added Research Center is proud to be included in this important work. We also believe that energetic engagement in the work of supporting Wisconsin schools and districts is the core of the Wisconsin Idea and exactly what a major research university should be doing.

Our ongoing work with districts in Wisconsin and across the U.S. has reinforced our belief that the only path to improvement is through system-wide reform with a focus on school productivity. Wisconsin's current statewide value-added system is an example of a co-developed infrastructure focused on improving our understanding of what is working in our schools and districts. The broad range of reforms outlined in Wisconsin's Race to the Top proposal has the breadth needed to tackle complex problems. The combination of a new, strong cabinet level office in the Department of Public Instruction with generous support for districts and the regional service agencies ensure that the project will have access to senior leaders and will have the resources in hand to execute the mission.

We believe that much of the Value-Added Research Center's research and product portfolio can be leveraged to provide considerable additional benefits to the state of Wisconsin. Reporting and analytic services developed for other districts and states can be leveraged to lower development costs and deliver advances in value-added modeling.

Finally, we have very much appreciated the opportunity to work with staff from DPI and the governor's office as we assisted in crafting the language of the proposal. Those discussions about shared goals, plans for new assessments, etc. are already bearing fruit.

Robert H. Meyer
Research Professor
Director, Value-Added Research Center
University of Wisconsin-Madison

Christopher A. Thorn
Associate Scientist
Associate Director, Value-Added Research Center
University of Wisconsin-Madison

Christopher Thorn

Digitally signed by Christopher Thorn
DN: c=US, st=Wisconsin, l=Madison, o=University of Wisconsin-Madison, ou=Faculty - Staff - Students, cn=Christopher Thorn, email=cathorn@wisc.edu
Date: 2010.05.26 16:34:55 -05'00'

Wisconsin Association of CESA Administrators

Gary Albrecht, Chair
CESA #2
448 East High St.
Milton, WI 53563
(608) 758-6232 • (608) 868-4864 (fax)

Guy Leavitt, Vice-Chair
Jesse Harness, Treasurer
Joan Wade, Past Chair

Jim Larson, Executive Secretary
11070 Old Hwy 51
Arbor Vitae, WI 54568
(715) 356-7083
E-mail: ljl@nnex.net

May 25, 2010

State Superintendent of Public Instruction Tony Evers
General Executive Facility (GEF) 3
P.O. Box 7841
Madison, WI 53707-7841

Dear State Superintendent Evers:

I am writing this letter as the chairperson of the CESA Administrators on behalf of all twelve Cooperative Educational Service Agencies in the state of Wisconsin.

The CESAs fully support the reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as students in other states and around the world, and these additional Federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

As you are aware, the CESAs work with virtually every school district throughout the state of Wisconsin to provide programs, services, and professional development. We also work closely with the Department of Public Instruction to roll out state and Federal initiatives to our school districts. These initiatives encompass many areas including, but not limited to, curriculum, special education, assessment, technology, and professional development. There are many components of the state plan in these areas that are central to our work with local school districts. A most recent example is the planning associated with RtI and PBIS.

Wisconsin CESAs are committed to the Race to the Top plan and stand ready to lead reform efforts as stated in the Wisconsin plan.

Sincerely,

(b)(6)

Gary L. Albrecht, Ph.D., Chairperson

Wisconsin Association of CESA Administrators (WACA)

CESA #1 Tim Gavigan Brookfield	CESA #2 Gary Albrecht Milton	CESA #3 Nancy Hendrickson Fennimore	CESA #4 Guy Leavitt West Salem	CESA #5 Don Stevens Portage	CESA #6 Joan Wade Oshkosh
CESA #7 Jeffrey Dickert Green Bay	CESA #8 Robert Kellogg Gillett	CESA #9 Jerome K. Flesa Tomahawk	CESA #10 Larry Annett Chippewa Falls	CESA #11 Jesse Harness Turtle Lake	CESA #12 Ken Kasinski Ashland

Wisconsin Association for Colleges of Teacher Education

May 22, 2010

Dear Governor Doyle and State Superintendent Evers:

The Wisconsin Association for Colleges of Teacher Education fully supports the ideal of an effective teacher in every PK12 classroom in Wisconsin. We are equally committed to quality educator preparation programs that actualize the knowledge, performances, and dispositions embodied in the Wisconsin Standards for Teacher Licensure and Development. We are excited about the opportunities that the Race to the Top funding offers Wisconsin as students are held to high standards that are meaningful as they prepare for life in the 21st century.

We also support the use of additional Federal resources for initiatives that research has shown will improve the overall quality of education in our state. Currently, Alverno College, the University of Wisconsin-Eau Claire and the University of Wisconsin-Madison are engaged in a pilot Teacher Performance Assessment project to develop a model of embedded signature performance assessments and a common capstone assessment that will assess teachers' ability to plan, instruct, reflect and assess. The Teacher Performance Assessment will meet the profession's standards for validity and reliability and will provide education preparation programs with a credible assessment for ongoing program improvement.

As the pilot progresses, all educator programs in the state will benefit from an enhanced understanding of effective teaching practices. While some funding has been available from the American Association for Colleges of Teacher Education, additional funding is needed to complete the pilot, disseminate the findings at annual Wisconsin Association for Colleges of Teacher Education meetings, and xpand the number of participating programs.

We believe that funding for the continued implementation of the pilot and the eventual expansion of the Teacher Performance Assessment is an important component to the Wisconsin Race to the Top application.

Sincerely,

K. Heyning

Katy Heyning, President
Wisconsin Association for Colleges of Teacher Education

WAICU
Wisconsin Association of Independent Colleges and Universities

May 18, 2010

The Honorable Jim Doyle
Governor of Wisconsin
P.O. Box 7863
Madison, WI 53707

The Honorable Tony Evers
State Superintendent
Wisconsin Department of Public Instruction
P.O. Box 7841
Madison, WI 53707-7841

Dear Governor Doyle and State Superintendent Evers:

The Wisconsin Association of Independent Colleges and Universities (WAICU) supports Wisconsin's Race to the Top application. We are excited about this new era for education in Wisconsin, where students will be encouraged to achieve the highest possible standards. These additional federal resources will help Wisconsin strengthen its work on initiatives that research has shown will improve the quality of education in our state.

Wisconsin's Race to the Top grant is fully supportive of WAICU's mission: "Wisconsin's private colleges—working together to advance educational opportunity." WAICU-member colleges and universities, in partnership with the state and federal governments, are already doing their part to help the state meet its Race to the Top college enrollment goals. Since 1980, enrollment in Wisconsin's nonprofit, independent colleges and universities has grown by 99 percent. WAICU-member colleges and universities are committed to academic success, with a growing enrollment of low-income, minority, and non-traditional students, as well as leading the state in its four-year graduation rate.

WAICU has administered collaborative student access programming for over 30 years, and has increased targeted programming to both urban and rural high schools with high percentages of low-income students. WAICU members are full participants in the Wisconsin Covenant, working with our partners in the University of Wisconsin System and Wisconsin Technical College System to find a place in a Wisconsin college or university for Covenant Scholars—those high school graduates who, in eighth grade, pledged to demonstrate good citizenship, achieve good grades, and take classes that prepare them for college.

122 W. Washington Avenue, Suite 700
Madison, WI 53703-2723
www.waicu.org

ROLF WEGENKE, Ph.D.
President

Telephone 608.256.7761
FAX 608.256.7065
mail@waicu.org

Wisconsin private colleges produce 26 percent of the state's bachelor's degrees, but graduate a disproportionate share of Wisconsin's education and STEM professionals:

29 percent of the state's engineering graduates
30 percent of the state's computer science graduates
33 percent of all teacher education graduates
31 percent of all math teachers
31 percent of all elementary teachers
76 percent of all reading teachers
70 percent of all reading teachers and specialists
77 percent all graduates in educational administration

WAICU looks forward to being a full partner in advancing opportunity and excellence.

Sincerely,

Rolf Wegenke, Ph.D.
President

Wisconsin
Association of
School
Business
Officials

May 20, 2010

The Honorable Jim Doyle
Office of the Governor
PO Box 7863
Madison, WI 53707

Mr. Tony Evers, State Superintendent
Department of Public Instruction
PO Box 7841
Madison, WI 53707-7841

Dear Governor Doyle and State Superintendent Evers:

The Wisconsin Association of School Business Officials (WASBO) supports the initiatives contained in the "Race to the Top Application" for Wisconsin as prepared by Governor Doyle and State Superintendent Evers. WASBO is excited that these additional federal resources will be directed toward initiatives that will improve the overall quality of education for Wisconsin's children.

WASBO is the professional education association for School Business Officials, District Administrators and Support Personnel in Wisconsin that provides leadership, mentorship, coaching, professional development opportunities and a support network for its members. WASBO members advocate for educational opportunities for children in the State of Wisconsin and work for adequate education funding. WASBO members are the leading experts on significant Wisconsin school business management issues.

An improved process, providing for more professional input and issue clarification was used in this application. Expert advice from a broad range of educational constituencies focused on quality and effective professional delivery methods. As a result, the MOU is more concise and understandable. Evaluation, supervision and coaching processes are more succinct, accountable and responsible. This will provide all Wisconsin children with expert educational leaders (administrators) and teachers. In addition, the minimum amounts allotted to districts were increased, especially for smaller districts that are predominant in Wisconsin. This will help assure all districts will have the needed finances to help improve each and every child's education.

This plan's focus on attracting, supporting and developing effective school administrators and teachers will improve the achievement of all students in the State. The Wisconsin Association of School Business Officials is committed to "Race to the Top" reforms and stands ready to help implement the reforms laid out in Wisconsin's plan.

Sincerely Yours,

Woody Wiedenhoeft

Woody Wiedenhoeft
Executive Director
Wisconsin Association of School Business Officials

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Suite 101
Madison, WI 53704

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608.249.8588
Fax
608.249.3163
www.wasbo.com

WISCONSIN ASSOCIATION OF SCHOOL BOARDS

122 W. Washington Avenue, Madison, WI 53703
Phone: 608-257-2622 • Fax: 608-257-8386

John H. Ashley, Executive Director

May 24, 2010

The Honorable Jim Doyle, Governor
State of Wisconsin
115 East, State Capitol
Madison, WI 53703

The Honorable Tony Evers, State Superintendent
Wisconsin Department of Public Instruction
125 S. Webster Street
Madison, WI 53707

Dear Governor Doyle and State Superintendent Evers:

The Wisconsin Association of School Boards (WASB) supports the Race to the Top application submitted on behalf of the State of Wisconsin. School board members throughout Wisconsin support many of the initiatives included in our state's plan and, in particular, the efforts to improve the state assessment system to more accurately evaluate student progress and inform instructional practices.

The WASB is dedicated to fostering effective school board practices for student success and is working to develop school board leadership based on research from the Iowa Association of School Boards Lighthouse Project and National School Board Association (NSBA) Key Work framework. The Lighthouse Project focuses board leadership on professional development and the use of data to determine effective development practices. This focus supports the state's goal to use data to meaningfully inform instructional improvement.

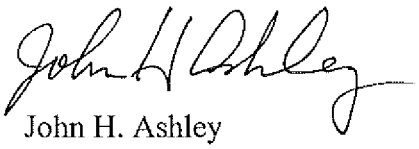
The NSBA Key Work framework takes a systems approach that addresses standards, assessment and accountability along with cultural considerations and defines the board's role in leading the district's efforts to improve student achievement. The framework can help school boards provide leadership through governance that will create the conditions under which successful teaching and learning can occur. It is built on the premise that excellence in the classroom begins with excellence in the boardroom.

The initiatives detailed in the state's Race to the Top application will further the WASB's efforts to foster effective school board practices and inform school board decision-making to improve student achievement.

We applaud your efforts to broaden the stakeholder process to include the WASB and other statewide organizations as you developed the state's Phase Two application. Feedback from school boards resulted in a number of changes which will allow school boards to more readily implement the reforms and allow the state to achieve its high aims.

We look forward to working with you as the Race to the Top process continues and the initiatives are implemented.

Sincerely,



John H. Ashley
Executive Director

Wisconsin ASCD
210 Green Bay Road • Thiensville, WI 53092
Phone: (262) 242-3771 • Fax: (262) 242-1862
www.wascd.org • office@wascd.org
Denise Pheifer, Executive Director

May 20, 2010

The Honorable Jim Doyle
Office of the Governor
115 East State Capitol
Madison WI 53707

RE: Wisconsin ASCD Letter of Support for Race to the Top Application

Dear Governor Doyle:

WASCD, Wisconsin's professional membership organization for excellence in teaching and learning, enthusiastically supports the State of Wisconsin's Race to the Top application. We have a long history of leadership in effective instructional strategies, assessment, and curriculum development. We bring the research, programming, and resources of ASCD to Wisconsin. ASCD is the worldwide membership organization that develops programs, products and services essential to the way educators learn, teach, and lead.

We are an active partner in Wisconsin education reform through the Department of Public Instruction, colleges, universities, and school districts across the state. WASCD offers a proven record of supporting quality educational reform, and we embrace Race to the Top as the next "step up" in improving education for Wisconsin students.

We already make a significant contribution to the Race to the Top application through our state programs, products, and services. As evidence, we currently offer the following support systems for educators:

Race to the Top Reform Areas	**Current Offerings**
Standards and assessment adoption	• WASCD response to the Common Core drafts – March, 2010 • Common Core Standards Initiative Symposium - Feb. 19 2010 • Formative Assessment Strategies – two-day program since 2007 • WASCD brings national experts on assessment to the state: Ken O'Connor, Tom Guskey, Jay McTighe, Bob Marzano, Jim Popham
Effective teachers	Effective literacy instruction: • Four-day program on Research-based reading strategies since 2003 (over 1000 teachers & administrators trained) • Two-day research-based program on developing academic vocabulary since 2007
Effective administrators	Instructional leadership mentoring and programming: • one-on-one mentoring • small group support for new instructional leaders (since 2002)
Closing the achievement gap	• WASCD provides national experts to the state such as Carol Tomlinson on differentiation and Richard Rothstein • 2010-2011 Art & Science of Teaching Academy (6 days)
Curriculum development	• Annual Conference co-sponsored by DPI with national experts such as Ken Kay, Partnership for 21st Century Skills and Ian Jukes on technology in the classroom

We seek to partner with you and other stakeholders as an active and aggressive participant in current school reform efforts most recently evidenced by our Symposium on the impact of the Common Core Standards on improving classroom assessment and learning (February 19, 2010). 200 educational leaders from around the state, representing 98 school districts, 9 colleges and universities and 12 state education agencies, met to investigate how we can work together to best implement the Common Core Standards Initiative put forth by the Council of Chief State School Officers and the National Governors Association. Our response to the Common Core Draft Standards can be found at www.wascd.org

Please inform us as to how we can provide additional service to support the State of Wisconsin's efforts to improve teaching and learning through the Race to the Top initiative. We stand willing to take these initiatives and others to scale to support the State of Wisconsin and school districts in need. We have the demonstrated capability to develop and implement high quality programs that improve teaching and learning.

Respectfully,

Christine Van Hoof
President
Wisconsin ASCD

WISCONSIN ASSOCIATION OF SCHOOL DISTRICT ADMINISTRATORS, INC.
Miles Turner, Executive Director

May 25, 2010

Dear Governor Doyle and State Superintendent Evers:

The Wisconsin Association of School District Administrators (WASDA) fully supports the reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, where students will be held to the same high standards as students in other states and around the world, and these additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

WASDA advocates for increasing student achievement and closing the achievement gap in Wisconsin. Our members are dedicated to providing the highest level of education possible for their students. We believe that Race to the Top will provide substantial support for achieving these goals.

Our organization is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan.

Sincerely,

(b)(6)

Miles Turner
Executive Director

MET:nl

Wisconsin
Charter Schools Association
Tomorrow's Schools Today

WCSA
P.O. Box 1704, Madison, WI 53701
info@wicharterschools.org

Tel: 608-261-1120
Fax: 608-265-0070
www.wicharterschools.org

May 26, 2010

Governor Jim Doyle
Office of Governor
State Capitol 115
Madison, WI 53707

State Superintendent Tony Evers
Department of Public Instruction
125 South Webster Street
Madison, WI 53702

Dear Governor Doyle and State Superintendent Evers:

The Wisconsin Charter School Association strongly supports the reform initiatives that comprise the Race to the Top Application for Wisconsin. We believe this is critically important for our State.

Wisconsin's educational system is facing challenges all over the state—and particularly in our urban areas. These funds represent an opportunity to make real breakthroughs in educational excellence in Wisconsin. We are excited about this new era for education where our students will be held to the same high standards as students in other states and around the world, and these additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

Wisconsin is a state with a high number of Charter Schools. More importantly, it has some of the highest quality Charter Schools in the country. Charter Schools are an important engine of school reform in our state—and Charter Schools in the Race to the Top activities can be innovation labs to drive significant increases in student performance—particularly for areas and student populations with the greatest needs.

Particularly, in Milwaukee we are making great strides in using a chartering strategy to improve school performance. In Milwaukee and throughout the state, we will see the number of Charter Schools greatly increase over the next five years. Not only will the Race to the Top activities help ensure the quality of our Charter Schools but it will allow a robust Charter School system in the state to help improve school performance statewide.

The Wisconsin Charter School Association is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan in anyway possible.

Sincerely,

(b)(6)

John Gee
Executive Director
Wisconsin Charter Schools Association

WCASS

The Wisconsin Council of Administrators of Special Services

May 24, 2010

The Honorable Jim Doyle
Office of the Governor
PO Box 7863
Madison, WI 53707

REC'D MAY 25 2010

Mr. Tony Evers, State Superintendent
Department of Public Instruction
PO Box 7841
Madison, WI 53707-7841

Dear State Superintendent Evers:

The Wisconsin Council of Administrators of Special Services fully supports the reform initiatives that comprise Wisconsin's Race to the Top Application. We are excited about the plan's promise that students will be held to the same high standards as students in other states and around the world and will improve the overall quality of education for all children in Wisconsin.

WCASS is the professional association for Directors of Special Education/Pupil Services in Wisconsin. The plan's focus on attracting, supporting, and developing effective school administrators and teachers holds great potential to improve the achievement of all students in the state.

WCASS is committed to the Race to the Top Application and stands ready to help implement the reforms laid out in Wisconsin's plan.

Sincerely,

(b)(6)

Phil Knobel
Executive Director

WCASS • 4797 Hayes Road, Suite 101 • Madison, WI 53704
608.245.2511 (phone) • 608.249.3163 (fax)
PhilKnobel@wcass.org • www.wcass.org

Funding Wisconsin's Future

Wisconsin Covenant
FOUNDATION

Tuesday, May 25, 2010

Dear Governor Doyle and State Superintendent Evers:

On behalf of the Wisconsin Covenant Foundation, I would like to express our support for the reform initiatives that comprise Governor Doyle and Superintendent Evers' Race to the Top Application for Wisconsin. Our Foundation is excited about this new era for education in Wisconsin, where our students will be held to the same high standards as students in other states and around the world. These additional federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

The Wisconsin Covenant Foundation, a private charitable organization, was founded in 2007 with the principal purpose of raising and distributing funds in support of post-secondary access for Wisconsin students who participate in the Wisconsin Covenant program. The Foundation is committed to providing grants to those students who complete the Wisconsin Covenant program and demonstrate financial need. We are helping to make the goal of a college education realistic, affordable, and obtainable for more students in this state.

The Wisconsin Covenant Foundation believes that, by helping more students prepare for and finance their post-secondary education, we will improve our state's economic development. Wisconsin's future success depends on building partnerships to increase college access for students and families. The more residents who hold post-secondary degrees and certificates, the greater the opportunity to improve the state's economy and the more competitive Wisconsin will be. We are investing in the human capital needed to keep Wisconsin relevant in a knowledge economy and helping Wisconsin keep pace with the rest of the nation and the world.

The reform initiatives outlined in the Race to the Top Application for Wisconsin are directly in line with the Wisconsin Covenant Foundation's goals. Specifically, building on Wisconsin's currently successful Science, Mathematics, Engineering and Technology (STEM) efforts will ensure that more of our students—future workers—will have the skills they need to compete in the new economy which has shifted from traditional manufacturing to knowledge-based jobs. Further, providing additional supports at the middle to high school transition will reinforce the Wisconsin Covenant's message of early preparedness for college.

Our organization is committed to the Race to the Top reforms and stands ready to help implement the reforms laid out in the state plan.

Sincerely,

(b)(6)

Vice-Chair, Board of Directors
Wisconsin Covenant Foundation, Inc.

Wisconsin Covenant Foundation, Inc.
2401 International Lane | Madison, WI 53704-3192
(608) 240-1251 | WisconsinCovenantFoundation.org

WISCONSIN EDUCATION ASSOCIATION COUNCIL

Affiliated with the National Education Association

Great schools benefit Everyone!

May 21, 2010

Dear Governor Doyle and Superintendent Evers,

On behalf of the Wisconsin Education Association Council, the state's largest union of educators, please include this letter of support with Wisconsin's Phase Two Race to the Top application. We welcomed your engagement of front-line educators in the Phase Two application process, because success for students builds upon the unique perspective of the classroom professionals if policy decisions are to be successfully implemented in the classroom.

In order for Wisconsin to be successful into the future, educators have consistently called for collaboration in all aspects of school improvement. Only through complete participation can our state achieve the primary goal set forward through Race to the Top – improving student learning. Building a strong education system designed to stand the test of time is in the best interest of our state.

As evidence to our commitment, our union has stepped up efforts to get parents and communities involved in education, including partnering with Governor Doyle, the Department of Public Instruction, and 100 other organizations to host a statewide summit on this critical issue. We are working pro-actively in coalition with school boards, administrators and other stakeholders to bring forward solutions to the systemic problem of an inadequate and outdated school funding system. We advocate for smaller class sizes to increase student learning, early childhood education and balanced assessments. We supported new legislation which increases the state superintendent's authority to intervene in struggling schools.

Included in this application are ambitious initiatives WEAC has long supported, including: a balanced, responsible approach to the use of student test data in improving individual and school-wide performance; quality teacher evaluation systems and professional development to support professionals in addressing areas of concern; and mentoring to maximize teacher and principal effectiveness in all schools. All of these focus on helping educators do their jobs better. This has the most direct impact on student learning.

The initiatives set forth in Wisconsin's Phase Two application, both at the state and the local level, are important, research-based strategies to catch students before achievement gaps become insurmountable. If implemented correctly, these efforts are more likely to be sustained after one-time federal funding is gone.

While this application is geared at improving school quality, and includes measures that can result in improved student learning, Wisconsin must commit itself to looking at the big picture when it comes to school improvement. Race to the Top isn't a silver bullet to address all the challenges our schools face. While there is no shortage of good ideas, funding shortfalls have made it difficult for schools to hold steady, let alone provide the means to implement sweeping changes.

Wisconsin's educators are committed to improving the quality of our public schools. WEAC believes this application represents sound education policy, designed to move Wisconsin education forward. We look forward to further discussion of the application and working in collaboration to successfully implement its provisions.

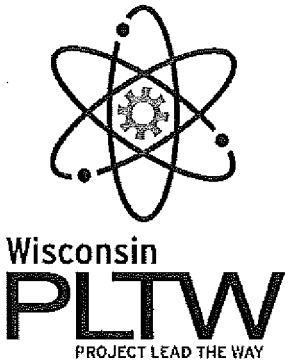
Sincerely,

(b)(6)

Mary Bell
President

Mary Bell, President
Dan Burkholter, Executive Director

33 Nob Hill Road PO Box 8003 Madison, WI 53708-8003 608.276.7711 800.362.8034 weac.org



May 19, 2010

Office of Governor Jim Doyle
115 East, State Capitol
PO Box 7863
Madison, WI 53707

Dear Governor Doyle and State Superintendent Evers:

Project Lead The Way (PLTW) is the nation's leading provider of rigorous and innovative Science, Technology, Engineering and Math (STEM) education for middle schools and high schools. PLTW's mission is to ensure that America succeeds in the increasingly high-tech and high-skill global economy, by partnering with middle schools and high schools to prepare students to become the most innovative and productive in the world.

PLTW's comprehensive curriculum, which is collaboratively developed by PLTW teachers, university educators, engineering and biomedical professionals, and school administrators, emphasizes critical thinking, creativity, innovation, and real-world problem solving. The hands-on, project-based program engages students on multiple levels, exposes them to areas of study that they typically do not pursue, and provides them with a foundation and proven path to college and career success in STEM related fields.

First implemented in Wisconsin in 1999, PLTW has grown from two high schools to more than 250 unique PLTW program implementations in urban, suburban, and rural areas across the state. A unique program implementation means a school district has adopted one or more of the three curricular programs listed below.

The three programs are:

- Gateway To Technology (GTT) – a sequence of 6 nine-week units for middle schools students
- Pathway To Engineering (PTE) – a sequence of 8 year-long elective courses for high schools students
- The Biomedical Sciences (BMP) – a sequence of 4 year-long courses for high schools students

Wisconsin currently ranks fifth in the nation in the number of active PLTW schools with more than 20,000 Wisconsin students benefitting from PLTW's rigorous, standards-aligned curriculum and hands-on learning activities.

Consider the following facts regarding PLTW in Wisconsin:

➢**PLTW is "Best Practice"-** Its rigorous, project-based learning curriculum helps to build the 21st-century STEM workforce pipeline. In recent, independently-conducted studies using school-specific student course-taking and achievement data, graduating PLTW seniors --when compared to a matched sample of non-PLTW seniors—demonstrated: (a) significantly higher ACT scores in math and science (27-28, compared to 23) and (b) significantly greater engagement in career exploration activities during high school. Moreover, PLTW seniors in urban high schools had significantly higher attendance during their senior year, producing 7-8 additional days of learning opportunities annually.

➢**PLTW Meets State and National Objectives -** Complementing existing Wisconsin initiatives such as Grow Wisconsin, the Wisconsin Covenant, and the Youth Apprenticeship Program, PLTW has been recognized as a premier education program by the Wisconsin Technology Council. Additionally, the program aligns with national and state standards in math, science, and technology.

➢ **PLTW is Recognized by Colleges and Universities -** Joining others across the nation, Wisconsin's private universities, the Wisconsin Technical College System, the University of Wisconsin System, and the University of Wisconsin Extension and Cooperative Extension recognize PLTW's impact and reward student completion with credit, advanced standing, and/or scholarships.

➢**PLTW is a Public/Private Partnership -** Public and private partners have joined together with innovative middle and high schools to ensure that PLTW is growing and sustainable in Wisconsin's classrooms to benefit our students, teachers, communities, and employers.

Wisconsin's PLTW State Leadership Team and Executive Council supports the STEM-related reform initiatives that comprise Governor Doyle and State Superintendent Evers' Race to the Top Application for our state. We are excited about this new era for education in Wisconsin, where students will be held to higher standards, consistent with those of students around the world. These additional federal resources will be directed toward implementing initiatives that research has shown will improve the overall quality of education in our state… initiatives like PLTW.

Race to the Top funding will allow Wisconsin to maintain and improve upon our standing as a national leader in PLTW implementation. With these resources we will create in each community the STEM-focused teaching, learning, and career development context, which will, in turn, assure that all students leave high school ready to succeed in both college and career pursuits. In doing so, we can further leverage the significant investment that has already been realized through state funding, district resources, and more than $5 million in program support from local business and industry partners and the philanthropic community.

Wisconsin's PLTW State Leadership Team and Executive Council proudly and enthusiastically supports this application.

Sincerely,

PLTW Wisconsin – State Leadership Team

Lauren Baker	Milwaukee Public Schools
Darla Burton	Cooperative Educational Service Agency #3
Monica Butler	Waunakee School District
Scott Fromader	Wisconsin Department of Workforce Department
Greg Granberg	Madison School District
Greg Groom	Wisconsin Technology Education Association
Dale Hanson	Appleton Area School District
Steve Huth	Janesville Schools Outdoor Laboratory
Jon Jensen	Marquette University
Brent Kindred	Wisconsin Department of Public Instruction
James Mackey	Wisconsin Technical College System
Robert Marlowe	Wausau School District
Allen Phelps	University of Wisconsin-Madison
Greg Quam	Platteville High School
Steve Salter	Milwaukee School of Engineering
Mark Schroll	Kern Family Foundation
Fred Skebba	Cooperative Educational Service Agency #9
Frank Steck	University of Wisconsin-Platteville
Sylvia Tiala	University of Wisconsin-Stout
Van Walling	Engineers & Scientists of Milwaukee
Karen Wilken	Kern Family Foundation
Greg Wright	Kenosha Unified School District No. 1

PLTW Wisconsin – State Leadership Team

Bill Bourbonnais	Wisconsin Public Service (retired)
Sujeet Chand	Rockwell Automation
Dan Clancy	Wisconsin Technical College System
Steve Cramer	University of Wisconsin - Madison
Brett Davis	Wisconsin State Legislature
Tony Evers	Wisconsin Department of Public Instruction
Roberta Gassman	Wisconsin Department of Workforce Development
James Haney	Wisconsin Manufacturers and Commerce
Michael Jansen	IIW Engineers & Surveyors
Stan Jaskolski	Marquette University
Bob Jeffers	X-nth, Inc.
Brent Kindred	Wisconsin Department of Public Instruction
Anne Lutz	Alliant Energy
Bob Meyer	Wisconsin Indianhead Technical College
Jeff Nack	3M
Reggie Newson	Wisconsin Department of Transportation
Ron Perez	University of Wisconsin - Milwaukee
Dianne Reynolds	Wisconsin Department of Workforce Development
Lisa Riedle	University of Wisconsin - Platteville
Steve Salter	Milwaukee School of Engineering
Corri Schmidt	3M
Gary Stroyny	Greenheck Fan
Don Sykes	Milwaukee Area Workforce Investment Board
Matthew Tadisch	Gilbane Building Company
Dorothy Valentine	Harley-Davidson (retired)
Hermann Viets	Milwaukee School of Engineering
Van Walling	Engineers & Scientists of Milwaukee
Jesse Wright	Adecco Engineering & Technical

WISCONSIN TECHNICAL COLLEGE
DISTRICT BOARDS ASSOCIATION

May 20, 2010

Jim Doyle
Governor
State of Wisconsin

Tony Evers
Superintendent of Public Instruction
State of Wisconsin

Dear Governor Doyle and Superintendent Evers,

On behalf of Wisconsin Technical College District Boards, I'm writing to express our support for Wisconsin's Race to the Top application. This is truly an exciting and dynamic time across the educational spectrum in Wisconsin. In a state that has always been a leader and national laboratory in education, Wisconsin's application strongly supports innovative new collaboration and initiatives.

Our members, the governing board members of our local technical colleges, work closely with local school districts statewide to promote exceptional educational opportunities. The state's Race to the Top application addresses a number of crucial investments promoting a well-educated and productive citizenry ready to lead Wisconsin and our nation to a great future. The "STEM" initiatives within Wisconsin's Race to the Top application represent just one of these important areas in which we look forward to new opportunities for collaboration.

We look forward to helping realize the objectives embodied in the Race to the Top application and appreciate your leadership in moving this process forward.

Sincerely,

Paul Gabriel
Executive Director

22 North Carroll Street · Suite 103 · Madison, WI · 53703 · USA · 608.266.9430 · www.districtboards.org

WISCONSIN
TECHNICAL COLLEGE
SYSTEM

May 24, 2010

Dear Governor Doyle and State Superintendent Evers:

The Wisconsin Technical College System fully supports Governor Doyle and State Superintendent Evers' Race to the Top Application for Wisconsin. We are excited about this new era for education in Wisconsin, where students will have clear pathways to success and new federal resources will be directed to initiatives that research has shown will improve the overall quality of education in our state.

The Wisconsin Technical College System has 16 technical college districts throughout Wisconsin, which offer more than 300 programs awarding two-year associate degrees, one- and two-year technical diplomas and short-term technical diplomas. In addition, the System is the major provider of customized training and technical assistance to Wisconsin's business and industry community and the primary provider education and training programs for returning adults and other special populations.

The components of Wisconsin's Race to the Top application compliment initiatives to implement the Wisconsin Technical College System's Strategic Directions to:

- *Promote pathways to address Wisconsin's need for a qualified workforce.*
- *Support academic success for all students.*
- *Promote effectiveness and efficiency measures that help maintain affordability.*
- *Foster systemwide and regional collaboration.*

For example, Wisconsin Technical Colleges use career academies in the areas of Health, Business, Renewable Energy, Manufacturing, Human Service and Marketing as college and career readiness models. These hands-on experiences assist students as they design their plan for the future and enhance the ease of transition from secondary to post-secondary education. Additional federal Race to the Top funds could assist in "scaling-up" these proven activities and allow continued access to career development for all students.

The Wisconsin Technical College System is particularly interested in scaling up STEM education efforts as nearly a third of all projected STEM occupations in Wisconsin will require less than a baccalaureate degree. As resources allow, Wisconsin's Technical Colleges already provide summer technology camps, pre-technical workshops, hands-on career exploration days and other projects that directly affect the career development and skill development of Wisconsin students. Through the Race to the Top initiative, technical colleges can work in partnership with local school districts, to improve the preparation of high school students for success in STEM careers and higher education.

Daniel Clancy, President
4622 University Avenue PO Box 7874 Madison, Wisconsin 53707-7874 608.266.1207
TTY: 608.267.2483 Fax: 608.266.1690
www.wtcsystem.edu www.witechcolleges.org

The Wisconsin Technical College System is committed to support the Wisconsin Race to the Top initiative and stands ready to help implement the reforms laid out in the state plan.

Sincerely,

Daniel Clancy

Dan Clancy
President

Daniel Clancy

Daniel Clancy, President
4622 University Avenue PO Box 7874 Madison, Wisconsin 53707-7874 608.266.1207
TTY: 608.267.2483 Fax: 608.266.1690
www.wtcsystem.edu www.witechcolleges.org

Appendix 10: Signed Common Core Standards MOA

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 set of standards. 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 a set of common core standards in English language arts and math 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 21st 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. 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. 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.

- **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 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 may choose to include additional state standards beyond the common core. 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.

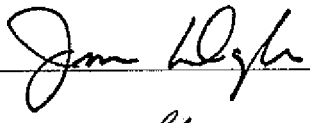
  Further, the goal is to establish an ongoing development process that can support continuous improvement of this first version of the common core based on research and evidence-based learning and can support the development of assessments that are aligned to the common core across the states, for accountability 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 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 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: Elizabeth Burmaster

Appendix 11: Internationally Benchmarked Common Core Standards—Public Drafts

Introduction to the Draft Common Core Standards
March 9, 2010

The Council of Chief State School Officers (CCSSO) and the National Governors Association Center for Best Practices (NGA Center) are pleased to present the draft Kindergarten-12 grade level Common Core State Standards documents that our organizations have produced on behalf of 48 states, two territories, and the District of Columbia. These English language arts and mathematics standards represent a set of expectations for student knowledge and skills that will result in high school graduates who are prepared for success in college and careers.

To develop these standards, CCSSO and the NGA Center worked with representatives from participating states, a wide range of educators, content experts, researchers, national organizations, and community groups. These drafts reflect their input, and we are grateful for the time and insight hundreds of individuals have contributed to the development of these important documents.

Now, we seek public comment on these draft documents and encourage input via our online survey available at www.corestandards.org. The public comment period will end on April 2, 2010.

After our work groups have had an opportunity to review all of the feedback from the general public and state-led reviews, they will produce final documents. It is expected that the final set of standards documents will be available in late spring 2010.

You will notice that the college- and career-readiness standards have been incorporated into this draft. The final English language arts and mathematics standards documents will include college- and career-readiness standards along with the K-12 grade level standards.

The criteria that we used to develop the college- and career-readiness standards, as well as these K-12 grade level standards are:

- Aligned with college and work expectations;
- Include rigorous content *and* application of knowledge through high-order skills;
- Build upon strengths and lessons of current state standards;
- Informed by top-performing countries, so that all students are prepared to succeed in our global economy and society; and,
- Evidence and/or research-based.

The following links provide more information about the criteria and considerations for standards development.

The standards development process has maximized the best practices and research from across the nation and the world. While we have used all available research to shape these documents, we recognize that there is more to be learned about the most essential knowledge for student success. As new research is conducted and we evaluate the

implementation of the common core standards, we plan to revise the standards accordingly on a set review cycle.

Our organizations would also like to thank our advisory group, which provides advice and guidance on this initiative. Members of this group include experts from Achieve, Inc., ACT, the College Board, the National Association of State Boards of Education, and the State Higher Education Executive Officers.

Application of Common Core State Standards for English Language Learners

English language learners (ELLs) must be held to the same level of standards expected of students who are already proficient in English. However, these students are acquiring both English language proficiency and content area knowledge concurrently, so 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, socioeconomic status, quality of prior schooling, and levels of English language proficiency. Effectively educating these students requires diagnosing each student instructionally, adjusting instruction accordingly, and closely monitoring student progress. 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. However, ELLs with limited or interrupted schooling will need to acquire background knowledge prerequisite to educational tasks at hand. Those ELLs who are newcomers to U.S. schools will need sufficiently scaffolded instruction and assessments to make sense of content delivered in a second language and to display this content knowledge.

English Language Arts

The common core standards for English language arts (ELA) articulate rigorous grade-level expectations in the areas of speaking, listening, reading, and writing to prepare all students to be college and career ready, including English language learners. Second-language learners also will benefit from instruction about how to negotiate situations outside of those settings so they are able to participate on equal footing with native speakers in all aspects of social, economic, and civic endeavors.

ELLs bring with them many resources that enhance their education and can serve as resources for schools and society. Many ELLs have first language and literacy knowledge and skills that boost their acquisition of language and literacy in a second language; additionally, they bring an array of talents and cultural practices and perspectives that enrich our schools and our society. Teachers must build on this enormous reservoir of talent and provide those students who need it with additional time and appropriate instructional support. This includes language proficiency standards that teachers can use in conjunction with the ELA standards to assist ELLs in becoming proficient and literate in English.

To help ELLs meet high academic standards in language arts it is essential that they have access to:

- Teachers and personnel at the school and district levels who are well prepared and qualified to support ELLs while taking advantage of the many strengths and skills they bring to the classroom;

- Literacy-rich school environments where students are immersed in a variety of language experiences;
- Instruction that develops foundational skills in English that enable ELLs to participate fully in grade-level coursework;
- Coursework that prepares ELLs for postsecondary education or the workplace yet is made comprehensible for students learning content in a second language (through specific pedagogical techniques and additional resources);
- Opportunities for classroom discourse and interaction that are well-designed to enable ELLs to develop communicative strengths in language arts;
- Ongoing assessment and feedback to guide learning; and
- Speakers of English who know the language well enough to provide ELLs with models and support.

Mathematics

ELLs can participate in mathematical discussions as they learn English. Mathematics instruction for ELL students 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.

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 and language varieties (e.g., different dialects, home or everyday ways of talking, vernacular, slang) 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 critical to the success of ELLs in mathematics. Research has shown that ELLs can produce explanations, presentations, etc. and participate in classroom discussions *as they are learning English*.

ELLs, like English-speaking students, require regular access to teaching practices that are most effective for improving student achievement. Mathematical tasks should be kept at high cognitive demand; teachers and students should attend explicitly to concepts; and students should wrestle with important mathematics.

Overall, research suggests that:

- 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 ELLs. Although it is critical 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. 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. 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.

Application of Common Core State Standards for Students with Disabilities

The Common Core Standards articulate rigorous, grade-level expectations in the areas of English language arts and mathematics to prepare students to be college and career ready.

All students, including students with disabilities— students eligible under the Individuals with Disabilities Education Act (IDEA) — must be challenged to excel within the general curriculum and prepared for success in their post-school lives, including college and/ or careers. The common core state standards provide a historic opportunity to improve access to academic content standards for students with disabilities. The continued development of understanding about research-based instructional practices and a focus on their effective implementation will also help improve access to the common core state standards.

Students with disabilities are a heterogeneous group with one common characteristic: the presence of disabling conditions that significantly hinder their abilities to benefit from general education (IDEA 34 CFR §300.39, 2004). Therefore, *how* these high standards are taught and assessed is of the utmost importance in reaching this diverse group of students.

For special education students to meet high academic standards and to fully demonstrate their conceptual and procedural knowledge and skills in mathematics and English language arts, their instruction must incorporate supports and often times, accommodations, including:

- Special education supports and related services designed to meet the unique needs of these students and to enable their access to the general education curriculum (IDEA 34 CFR §300.34, 2004).
- An Individualized Education Program, which includes annual goals aligned with and chosen to facilitate their attainment of grade-level academic standards.
- Teachers and specialized instructional support personnel who are prepared and qualified to deliver high-quality, evidence-based, individualized instruction and support services.

Promoting a culture of high expectations for all students is a fundamental goal of the common core state standards. To participate with success in the general curriculum, students with disabilities, as appropriate, may be provided additional supports and services, such as:

- Instructional supports for learning, based on the principles of Universal Design for Learning, which foster student engagement by presenting information in multiple ways and allowing for diverse avenues of action and expression.
- Instructional accommodations —changes in materials or procedures— which do not change the standards but allow students to learn within the framework of the common core state standards.

- Assistive technology devices and services to ensure access to the general education curriculum and the common core state standards.

For some students with significant cognitive disabilities to access certain standards, those standards may need to be extended and/or adjusted. However, standards should be extended and/or adjusted only after students receive access to multiple means of learning and demonstrating knowledge. Any extensions and/ or adjustments must align with and retain the rigor and high expectations of the common core state standards.

COMMON CORE STATE STANDARDS

FOR Mathematics

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online at www.corestandards.org

Introduction
Toward greater focus and coherence

The composite standards [of Hong Kong, Korea and Singapore] have a number of features that can inform an international benchmarking process for the development of K–6 mathematics standards in the US. First, the composite standards concentrate the early learning of mathematics on the number, measurement, and geometry strands with less emphasis on data analysis and little exposure to algebra. The Hong Kong standards for grades 1–3 devote approximately half the targeted time to numbers and almost all the time remaining to geometry and measurement.

Ginsburg, Leinwand and Decker, 2009

Mathematics experiences in early childhood settings should concentrate on (1) number (which includes whole number, operations, and relations) and (2) geometry, spatial relations, and measurement, with more mathematics learning time devoted to number than to other topics. The mathematical process goals should be integrated in these content areas. Children should understand the concepts and learn the skills exemplified in the teaching-learning paths described in this report.

National Research Council, 2009

In general, the US textbooks do a much worse job than the Singapore textbooks in clarifying the mathematical concepts that students must learn. Because the mathematics concepts in these textbooks are often weak, the presentation becomes more mechanical than is ideal. We looked at both traditional and non-traditional textbooks used in the US and found this conceptual weakness in both.

Ginsburg et al., 2005

Notable in the research base for these standards are conclusions from TIMSS and other studies of high-performing countries that the traditional US mathematics curriculum must become substantially more coherent and more focused in order to improve student achievement in mathematics. To deliver on the promise of common standards, the standards must address the problem of a curriculum that is 'a mile wide and an inch deep.' The draft Common Core State Standards for Mathematics are a substantial answer to this challenge.

It is important to recognize that "fewer standards" are no substitute for *focused* standards. Achieving "fewer standards" would be easy to do by simply resorting to broad, general statements. Instead, the draft Common Core State Standards for Mathematics aim for clarity and specificity.

Assessing the coherence of a set of standards is more difficult than assessing their focus. William Schmidt and Richard Houang (2002) have said that content standards and curricula are coherent if they are:

> *articulated over time as a sequence of topics and performances that are logical and reflect, where appropriate, the sequential or hierarchical nature of the disciplinary content from which the subject matter derives. That is, what and how students are taught should reflect* not only the topics *that fall within a certain academic discipline,* but also the key ideas *that determine how knowledge is organized and generated within that discipline. This implies that "to be coherent," a set of content standards must evolve from particulars (e.g., the meaning and operations of whole numbers, including simple math facts and routine computational procedures associated with whole numbers and fractions) to deeper structures inherent in the discipline. This deeper structure then serves as a means for connecting the particulars (such as an understanding of the rational number system and its properties).* (emphasis added)

The draft Common Core State Standards for Mathematics endeavor to follow such a design, not only by stressing conceptual understanding of the key ideas, but also by continually returning to organizing principles such as place value or the laws of arithmetic to structure those ideas.

The standards in this draft document define what students should understand and be able to do. Asking a student to understand something means asking a teacher to assess whether the student has understood it. But what does mathematical understanding look like? One hallmark of mathematical understanding is the ability to justify, in a way appropriate to the student's mathematical maturity, *why* a particular mathematical statement is true or where a mathematical rule comes from. There is a world of difference between the student who can summon a mnemonic device such as "FOIL" to expand a product such as $(a + b)(x + y)$ and a student who can explain where that mnemonic comes from. Teachers often observe this difference firsthand, even if large-scale assessments in the year 2010 often do not. The student who can explain the rule understands the mathematics, and may have a better chance to succeed at a less familiar task such as expanding $(a + b + c)(x + y)$. Mathematical understanding and procedural skill are equally important, and both are assessable using mathematical tasks of sufficient richness.

The draft Common Core State Standards for Mathematics begin on the next page with eight Standards for Mathematical Practice. These are not a list of individual math topics, but rather a list of ways in which developing student-practitioners of mathematics increasingly ought to engage with those topics as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years.

Grateful acknowledgment is here made to Dr. Cathy Kessel for editing the draft standards.

Mathematics | Standards for Mathematical Practice

Proficient students of all ages 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 continue. They are experimenters and inventors, and can adapt known strategies to new problems. They think strategically.

The practices described below are encouraged in apprentices by expert mathematical thinkers. Students who engage in these practices, individually and with their classmates, discover ideas and gain insights that spur them to pursue mathematics beyond the classroom walls. They learn that effort counts in mathematical achievement. Encouraging these practices in students of all ages should be as much a goal of the mathematics curriculum as the learning of specific content.

1 Make sense of 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 analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

2 Reason abstractly and quantitatively.

Mathematically proficient students make sense of the quantities and their relationships in problem situations. Students bring two complementary abilities to bear on problems involving quantitative relationships: 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 referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

3 Construct viable arguments and critique the reasoning of others.

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 are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They 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. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

4 Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a

student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, 2-by-2 tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

5 Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, ruler, protractor, calculator, spreadsheet, computer algebra system, statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students interpret graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

6 Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

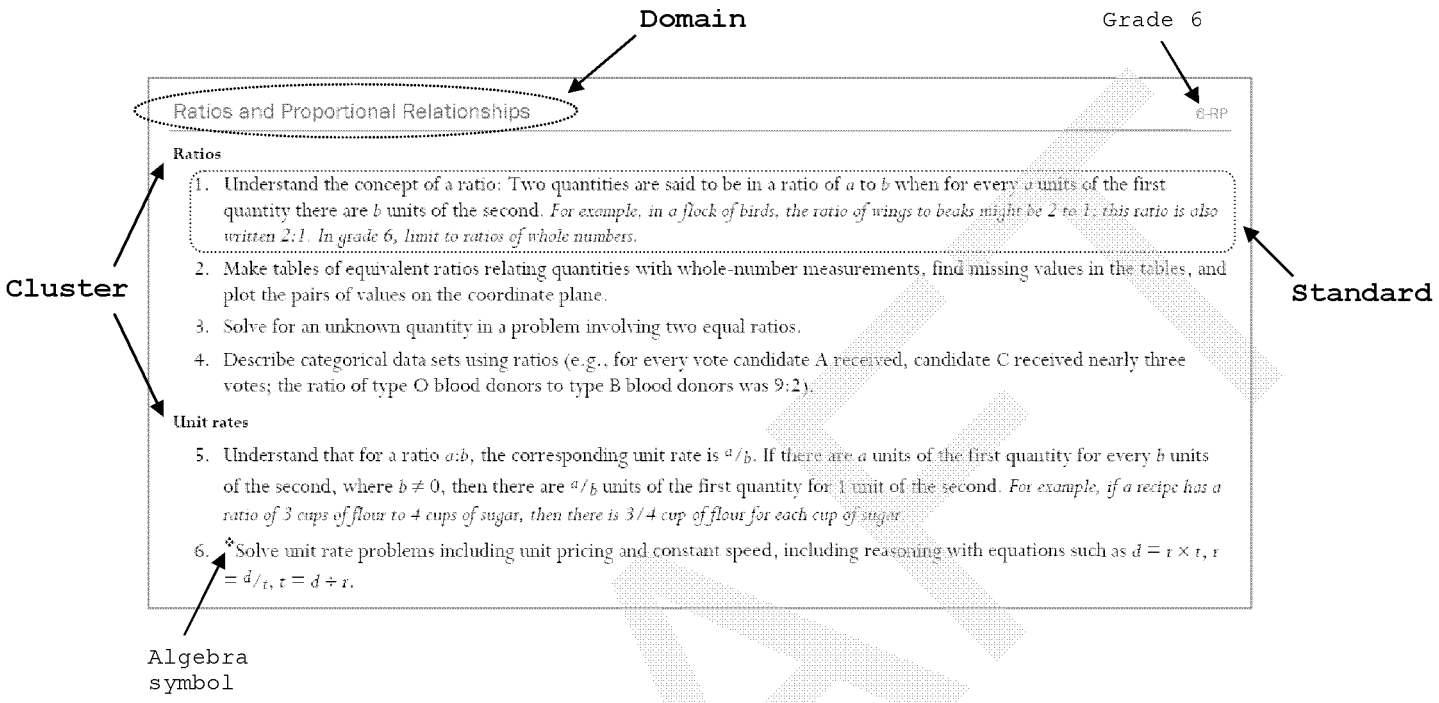
7 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as composed of several objects. For example, they can see $5 - 3(x-y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

8 Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

How to read the grade level standards



Standards define what students should understand and be able to do. **Clusters** are groups of related standards. Note that standards from different clusters may sometimes be closely related, because mathematics is a connected subject. **Domains** are larger groups of related standards. For each grade level in Grades K–8, the standards are organized into four or five domains. Standards from different domains may sometimes be closely related.

Algebra Symbol: Key standards for the development of algebraic thinking in Grades K–5 are indicated by ❖.

Dotted Underlines: Dotted underlines, for example, decade words, indicate terms that are explained in the Glossary. In each grade, underlining is used for the first occurrence of a defined term, but not in subsequent occurrences.

Note on Grade Placement of Topics. What students can learn at any particular grade level depends upon what they have learned before. Ideally then, each standard in this document might have been phrased in the form, "Students who already know A should next come to learn B." But in the year 2010 this approach is unrealistic—not least because existing education research cannot specify all such learning pathways. Of necessity therefore, grade placements for specific topics have been made on the basis of state and international comparisons and the collective experience and collective professional judgment of educators, researchers and mathematicians. One promise of common state standards is that over time they will allow research on learning progressions to inform and improve the design of standards to a much greater extent than is possible today. Learning opportunities will continue to vary across schools and school systems, and educators should make every effort to meet the needs of individual students based on their current understanding.

Note on Ordering of Topics within a Grade. These standards do not dictate curriculum. In particular, just because topic A appears before topic B in the standards for a given grade, it does not necessarily mean that topic A must be taught before topic B. A teacher might prefer to teach topic B before topic A, or might choose to highlight connections by teaching topic A and topic B at the same time. Or, a teacher might prefer to teach a topic of his or her own choosing that leads, as a byproduct, to students reaching the standards for topics A and B.

Overview of the Mathematics Standards
Grades K–5

This table shows the domains and clusters in each grade K–5

	K	*1*	*2*	*3*	*4*	*5*
Number—Counting and Cardinality	• Number names • Counting to tell the number of objects • Comparing and ordering numbers					
Number—Operations and the Problems They Solve	• Composing and decomposing numbers; addition and subtraction	• Addition and subtraction • Describing situations and solving problems with addition and subtraction	• Addition and subtraction • Describing situations and solving problems with addition and subtraction	• Multiplication and division • Describing situations and solving problems with multiplication and division	• Multiplication and Division • Problem solving with the four operations	
Number—Base Ten	• Two-digit numbers • Composing and decomposing ten	• Numbers up to 100 • Adding and subtracting in base ten	• Numbers up to 1000 • Adding and subtracting in base ten	• Numbers up to 10,000 • Adding and subtracting in base ten • Multiplying and dividing in base ten	• Numbers up to 100,000 • Multiplying and dividing in base ten	• Whole numbers in base ten • Decimal concepts • Operations on decimals
Number—Fractions				• Fractions as representations of numbers • Fractional quantities	• Operations on fractions • Decimal concepts	• Fraction equivalence • Operations on fractions
Measurement and Data	• Direct measurement • Representing and interpreting data	• Length measurement • Time measurement • Representing and interpreting data	• Length measurement • Time and money • Representing and interpreting data	• The number line and units of measure • Perimeter and area • Representing and interpreting data	• The number line and units of measure • Perimeter and area • Angle measurement • Representing and interpreting data	• Units of measure • Volume • Representing and interpreting data
Geometry	• Shapes, their attributes, and spatial reasoning	• Shapes, their attributes, and spatial reasoning	• Shapes, their attributes, and spatial reasoning	• Properties of 2-dimensional shapes • Structuring rectangular shapes	• Lines and angles • Line symmetry	• Coordinates • Plane figures

Overview of the Mathematics Standards
Grades 6–8

This table shows the domains and clusters in each grade 6–8.

	Grade 6	Grade 7	Grade 8
Ratios and Proportional Relationships	• Ratios • Unit rates	• Analyzing proportional relationships • Percent	
The Number System	• Operations • The system of rational numbers	• The system of rational numbers • The system of real numbers	• The system of real numbers
Expressions and Equations	• Expressions • Quantitative relationships and the algebraic approach to problems	• Expressions • Quantitative relationships and the algebraic approach to solving problems	• Slopes of lines in the coordinate plane • Linear equations and systems
Functions			• Function concepts • Functional relationships between quantities
Geometry	• Properties of area, surface area, and volume	• Congruence and similarity • Angles	• Congruence and similarity • The Pythagorean Theorem • Plane and solid geometry
Statistics and Probability	• Variability and measures of center • Summarizing and describing distributions	• Situations involving randomness • Random sampling to draw inferences about a population • Comparative inferences about two populations	• Patterns of association in bivariate data

In Kindergarten, instructional time should focus on two critical areas: (1) representing, comparing and ordering whole numbers and joining and separating sets; (2) describing shapes and space. More learning time in Kindergarten should be devoted to number than to other topics.

(1) Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; creating a set with a given number of objects; comparing and ordering sets or numerals; and modeling simple joining and separating situations with objects. They choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.

(2) Students describe their physical world using geometric ideas (e.g., shape, orientation, spatial relations) and vocabulary. They identify, name, and describe basic shapes, such as squares, triangles, circles, rectangles, (regular) hexagons, and (isosceles) trapezoids, presented in a variety of ways (e.g., with different sizes or orientations), as well as three-dimensional shapes such as spheres, cubes, and cylinders. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

Number names

1. Say the number name sequence to 100.
2. Know the decade words to ninety and recite them in order ("ten, twenty, thirty, …").
3. Say the number name sequence forward or backward beginning from a given number within the known sequence (instead of always beginning at 1).
4. Write numbers from 1 to 20 in base-ten notation.

Counting to tell the number of objects

5. Count to answer "how many?" questions about as many as 20 things. *Objects may be arranged in a line, a rectangular array, a circle, or a scattered configuration.*
6. Understand that when counting objects,
   a. The number names are said in the standard order.
   b. Each object is paired with one and only one number name.
   c. The last number name said tells the number of objects counted.
7. Understand that when counting forward, each successive number name refers to a quantity that is 1 larger.

Comparing and ordering numbers

8. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. *Include groups with up to ten objects.*
9. Compare and put in order numbers between 1 and 10 presented in written symbols: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

Number—Operations and the Problems They Solve K-NOP

Composing and decomposing numbers; addition and subtraction

1. Understand addition as putting together—e.g., finding the number of objects in a group formed by putting two groups together. Understand subtraction as taking apart—e.g., finding the number of objects left when a one group is taken from another.
2. Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. *Note that drawings need not show details, but should show the mathematics in the problem. (This note also applies wherever drawings are mentioned in subsequent standards.)*
3. ❖Decompose numbers less than or equal to 10 into pairs in various ways, e.g., using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$). Compose numbers whose sum is less than or equal to 10, e.g., using objects or drawings, and record each composition by a drawing or equation (e.g., $3 + 1 = 4$).❖
4. Compose and decompose numbers less than or equal to 10 in two different ways, and record compositions and decompositions by drawings or equations. *For example, 7 might be composed or decomposed in two different ways by a drawing showing how a group of 2 and a group of 5 together make the same number as do a group of 3 and a group of 4.*
5. ❖Understand that addition and subtraction are related. *For example, when a group of 9 is decomposed into a group of 6 and a group of 3, this means not only $9 = 6 + 3$ but also $9 - 3 = 6$ and $9 - 6 = 3$.*
6. ❖Solve addition and subtraction word problems, and calculate additions and subtractions within 10, e.g., using objects or drawings to represent the problem.
7. Fluently add and subtract, for sums and minuends of 5 or less.

Number—Base Ten K-NBT

Two-digit numbers

1. Understand that 10 can be thought of as a bundle of ones—a unit called a "ten."
2. Understand that a teen number is composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
3. Compose and decompose teen numbers into a ten and some ones, e.g., by using objects or drawings, and record the compositions and decompositions in base-ten notation. *For example, $10 + 8 = 18$ and $14 = 10 + 4$.*
4. Put in order numbers presented in base-ten notation from 1 to 20 (inclusive), and be able to explain the reasoning.
5. Understand that a decade word refers to one, two, three, four, five, six, seven, eight, or nine tens.
6. Understand that the two digits of a two-digit number represent amounts of tens and ones. *In 29, for example, the 2 represents two tens and the 9 represents nine ones.*

Composing and decomposing ten

7. Decompose 10 into pairs of numbers, e.g., by using objects or drawings, and record each decomposition with a drawing or equation.
8. Compose numbers to make 10, e.g., by using objects or drawings, and record each composition with a drawing or equation.
9. ❖For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.

Measurement and Data K-MD

Direct measurement

1. Understand that objects have measurable attributes, such as length or weight. A single object might have several measurable attributes of interest.
2. Directly compare two objects with a measurable attribute in common, to see which object has "more of" the attribute. *For example, directly compare the heights of two books and identify which book is taller.*

Representing and interpreting data

3. Classify objects or people into given categories; count the numbers in each category and sort the categories by count. *Limit category counts to be less than or equal to 10.*

Geometry K-G

Shapes, their attributes, and spatial reasoning

1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*.
2. Understand that names of shapes apply regardless of the orientation or overall size of the shape. *For example, a square in any orientation is still a square. Students may initially need to physically rotate a shape until it is "level" before they can correctly name it.*
3. Understand that shapes can be two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").
4. Understand that shapes can be seen as having parts, such as sides and vertices ("corners"), and that shapes can be put together to compose other shapes.
5. Analyze and compare a variety of two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, component parts (e.g., number of sides and vertices) and other attributes (e.g., having sides of equal length).
6. Combine two- or three-dimensional shapes to solve problems such as deciding which puzzle piece will fit into a place in a puzzle.

In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for additions and subtractions within 20; (2) developing understanding of whole number relationships, including grouping in tens and ones, (3) developing understanding of linear measurement and measuring lengths, and (4) composing and decomposing geometric shapes.

(1) Students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers. They use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model "put together/take apart," "add to," "take from," and "compare" situations to develop meaning for the operations of addition and subtraction, and to develop strategies to solve arithmetic problems with these operations. Students understand connections between counting and addition and subtraction (i.e., adding two is the same as counting on two). They use properties of addition (commutativity and associativity) to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., "making tens") to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, children build their understanding of the inverse relationship between addition and subtraction.

(2) Students compare and order whole numbers (at least to 100), to develop understanding of and solve problems involving their relative sizes. They think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones). They understand the sequential order of the counting numbers and their relative magnitudes through activities such as representing numbers on paths of numbered things.

(3) Students develop an understanding of the meaning and processes of measurement, including underlying concepts such as partitioning (the mental activity of decomposing the length of an object into equal-sized units) and transitivity (e.g., in terms of length, if object A is longer than object B and object B is longer than object C, then object A is longer than object C). They understand linear measure as an iteration of units, and use rulers and other measurement tools with that understanding.

(4) Students compose and decompose plane and solid figures (e.g., put two congruent isosceles triangles together to make a rhombus), building understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine solid and plane figures, they recognize them from different perspectives and orientations, describe their geometric attributes, and determine how they are alike and different, to develop the background for measurement and for initial understandings of properties such as congruence and symmetry.

Addition and subtraction

1. ❖Understand the properties of addition.
   a. Addition is commutative. *For example, if 3 cups are added to a stack of 8 cups, then the total number of cups is the same as when 8 cups are added to a stack of 3 cups; that is, 8 + 3 = 3 + 8.*
   b. Addition is associative. *For example, 4 + 3 + 2 can be found by first adding 4 + 3 = 7 then adding 7 + 2 = 9, or by first adding 3 + 2 = 5 then adding 4 + 5 = 9.*
   c. 0 is the additive identity.
2. ❖Explain and justify properties of addition and subtraction, e.g., by using representations such as objects, drawings, and story contexts. Explain what happens when:
   a. The order of addends in a sum is changed in a sum with two addends.
   b. 0 is added to a number.
   c. A number is subtracted from itself.
   d. One addend in a sum is increased by 1 and the other addend is decreased by 1. *Limit to two addends.*
3. ❖Understand that addition and subtraction have an inverse relationship. *For example, if 8 + 2 = 10 is known, then 10 – 2 = 8 and 10 – 8 = 2 are also known.*
4. ❖Understand that when all but one of three numbers in an addition or subtraction equation are known, the unknown number can be found. *Limit to cases where the unknown number is a whole number.*
5. Understand that addition can be recorded by an expression (e.g., 6 + 3), or by an equation that shows the sum (e.g., 6 + 3 = 9). Likewise, subtraction can be recorded by an expression (e.g., 9 – 5), or by an equation that shows the difference (e.g., 9 – 5 = 4).

Describing situations and solving problems with addition and subtraction

6. Understand that addition and subtraction apply to situations of adding-to, taking-from, putting together, taking apart, and comparing. *See Glossary, Table 1.*
7. ❖Solve word problems involving addition and subtraction within 20, e.g., by using objects, drawings and equations to represent the problem. *Students should work with all of the addition and subtraction situations shown in the Glossary, Table 1, solving problems with unknowns in all positions, and representing these situations with equations that use a symbol for the unknown (e.g., a question mark or a small square). Grade 1 students need not master the more difficult problem types.*
8. Solve word problems involving addition of three whole numbers whose sum is less than or equal to 20.

Number—Base Ten 1-NBT

Numbers up to 100

1. Read and write numbers to 100.
2. Starting at any number, count to 100 or beyond.
3. Understand that when comparing two-digit numbers, if one number has more tens, it is greater; if the amount of tens is the same in each number, then the number with more ones is greater.
4. Compare and order two-digit numbers based on meanings of the tens and ones digits, using > and < symbols to record the results of comparisons.

Adding and subtracting in base ten

5. Calculate mentally, additions and subtractions within 20.
   a. Use strategies that include counting on; making ten (for example, 7 + 6 = 7 + 3 + 3 = 10 + 3 = 13); and decomposing a number (for example, 17 – 9 = 17 – 7 – 2 = 10 – 2 = 8).
6. Demonstrate fluency in addition and subtraction within 10.
7. Understand that in adding or subtracting two-digit numbers, one adds or subtracts like units (tens and tens, ones and ones) and sometimes it is necessary to compose or decompose a higher value unit.
8. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count.
9. Add one-digit numbers to two-digit numbers, and add multiples of 10 to one-digit and two-digit numbers.
10. Explain addition of two-digit numbers using concrete models or drawings to show composition of a ten or a hundred.
11. ❖Add two-digit numbers to two-digit numbers using strategies based on place value, properties of operations, and/or the inverse relationship between addition and subtraction; explain the reasoning used.

Length measurement

1. Order three objects by length; compare the length of two objects indirectly by using a third object.
2. Understand that the length of an object can be expressed numerically by using another object as a length unit (such as a paper-clip, yardstick, or inch length on a ruler). The object to be measured is partitioned into as many equal parts as possible with the same length as the length unit. The length measurement of the object is the number of length units that span it with no gaps or overlaps. *For example, "I can put four paperclips end to end along the pencil, so the pencil is four paperclips long."*
3. Measure the length of an object by using another object as a length unit.

Time measurement

4. Tell time from analog clocks in hours and half- or quarter-hours.

Representing and interpreting data

5. 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.

Geometry 1-G

Shapes, their attributes, and spatial reasoning

1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size) for a wide variety of shapes.
2. Understand that shapes can be joined together (composed) to form a larger shape or taken apart (decomposed) into a collection of smaller shapes. Composing multiple copies of some shapes creates tilings. *In this grade, "circles," "rectangles," and other shapes include their interiors as well as their boundaries.*
3. Compose two-dimensional shapes to create a unit, using cutouts of rectangles, squares, triangles, half-circles, and quarter-circles. Form new shapes by repeating the unit.
4. Compose three-dimensional shapes to create a unit, using concrete models of cubes, right rectangular prisms, right circular cones, and right circular cylinders. Form new shapes by repeating the unit. *Students do not need to learn formal names such as "right rectangular prism."*
5. Decompose circles and rectangles into two and four equal parts. Describe the parts using the words *halves*, *fourths*, and *quarters*, and using the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the parts. Understand that decomposing into more equal shares creates smaller shares.
6. Decompose two-dimensional shapes into rectangles, squares, triangles, half-circles, and quarter-circles, including decompositions into equal shares.

Mathematics | Grade 2

In Grade 2, instructional time should focus on three critical areas: (1) developing understanding of base-ten notation; (2) developing fluency with additions and subtractions within 20 and fluency with multi-digit addition and subtraction; and (3) describing and analyzing shapes.

(1) Students develop an understanding of the base-ten system (at least to 1000). Their understanding of the base-ten system includes ideas of counting in units (twos, fives, and tens) and multiples of hundreds, tens, and ones, as well as number relationships, including comparing and ordering. They understand multi-digit numbers (up to 1000) written in base-ten notation, recognizing that the digits in each place represent thousands, hundreds, tens, or ones (e.g., 853 is 8 hundreds + 5 tens + 3 ones).

(2) Students use their understanding of addition to develop fluency with additions and subtractions within 20. They solve arithmetic problems by applying their understanding of models for addition and subtraction (such as combining or separating sets or using number lines that begin with zero), relationships and properties of numbers, and properties of addition. They develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of two-digit whole numbers. They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences. They develop fluency with efficient procedures, including standard algorithms, for adding and subtracting whole numbers; understand and explain why the procedures work based on their understanding of base-ten notation and properties of operations; and use them to solve problems.

(3) Students describe and analyze shapes by examining their sides and angles. Students investigate, describe, and reason about decomposing and combining shapes to make other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding attributes of two- and three-dimensional space such as area and volume, and properties such as congruence and symmetry that they will learn about in later grades.

Addition and subtraction

1. ❖Explain and justify properties of addition and subtraction, e.g., by using representations such as objects, drawings, and story contexts. Include properties such as:
   a. Changing the order of addends does not change their sum.
   b. Subtracting one addend from a sum of two numbers results in the other addend.
   c. If more is subtracted from a number, the difference is decreased, and if less is subtracted the difference is increased.
   d. In an addition equation, each addend can be decomposed and the parts can be recombined in any order without changing the sum. *For example, 5 + 3 = 8. Because 5 decomposes as 4 + 1, the first addend can be replaced by 4 + 1, yielding (4 + 1) + 3 = 8. Recombining in two different orders: 4 + 4 = 8, also 7 + 1 = 8.*

Describing situations and solving problems with addition and subtraction

2. ❖Solve word problems involving addition and subtraction within 100, e.g., by using drawings or equations to represent the problem. *Students should work with all of the addition and subtraction situations shown in the Glossary, Table 1, solving problems with unknown sums, addends, differences, minuends, and subtrahends, and representing these situations with equations that use a symbol for the unknown (e.g., a question mark or a small square). Focus on the more difficult problem types.*
3. Solve two-step word problems involving addition and subtraction within 100, e.g., by using drawings or equations to represent the problem.

Number—Base Ten 2-NBT

Numbers up to 1000

1. Understand that 100 can be thought of as a bundle of tens—a unit called a "hundred."
2. Read and write numbers to 1000 using base-ten notation, number names, and expanded form.
3. Count within 1000; skip count by 2s, 5s, 10s, and 100s.
4. Understand that when comparing three-digit numbers, if one number has more hundreds, it is greater; if the amount of hundreds is the same in each number, then the number with more tens is greater. If the amount of tens and hundreds is the same in each number, then the number with more ones is greater.
5. Compare and order three-digit numbers based on meanings of the hundreds, tens, and ones digits.

Adding and subtracting in base ten

6. Fluently add and subtract within 20. By end of Grade 2, know from memory sums of one-digit numbers.
7. Mentally compute sums and differences of multiples of 10. *For example, mentally calculate 130 – 80.*
8. Understand that in adding or subtracting three-digit numbers, one adds or subtracts like units (hundreds and hundreds, tens and tens, ones and ones) and sometimes it is necessary to compose or decompose a higher value unit.
9. Given a number from 100 to 900, mentally find 10 more or 10 less than the number, and mentally find 100 more or 100 less than the number, without counting.
10. Understand that algorithms are predefined steps that give the correct result in every case, while strategies are purposeful manipulations that may be chosen for specific problems, may not have a fixed order, and may be aimed at converting one problem into another. *For example, one might mentally compute 503 – 398 as follows: 398 + 2 = 400, 400 + 100 = 500, 500 + 3 = 503, so the answer is 2 + 100 + 3, or 105.*
11. ❖ Compute sums and differences of one-, two-, and three-digit numbers using strategies based on place value, properties of operations, and/or the inverse relationship between addition and subtraction; explain the reasoning used.
12. ❖Explain why addition and subtraction strategies and algorithms work, using place value and the properties of operations. *Include explanations supported by drawings or objects. A range of reasonably efficient algorithms may be covered, not only the standard algorithm.*
13. Compute sums of two three-digit numbers, and compute sums of three or four two-digit numbers, using the standard algorithm; compute differences of two three-digit numbers using the standard algorithm.

Measurement and Data 2-MD

Length measurement

1. Understand that 1 inch, 1 foot, 1 centimeter, and 1 meter are conventionally defined lengths used as standard units.
2. Measure lengths using measurement tools such as rulers, yardsticks and measuring tapes; understand that these tools are used to find out how many standard length units span an object with no gaps or overlaps, when the 0 mark of the tool is aligned with an end of the object.

3. Understand that when measuring a length, if a smaller unit is used, more copies of that unit are needed to measure the length than would be necessary if a larger unit were used.
4. Understand that units can be decomposed into smaller units, e.g., 1 foot can be decomposed into 12 inches and 1 meter can be decomposed into 100 centimeters. A small number of long units might compose a greater length than a large number of small units.
5. Understand that lengths can be compared by placing objects side by side, with one end lined up. The difference in lengths is how far the longer extends beyond the end of the shorter.
6. Understand that a sum of two whole numbers can represent a combination of two lengths; a difference of two whole numbers can represent a difference in length; find total lengths and differences in lengths using addition and subtraction.

Time and money

7. Find time intervals between hours in one day.
8. Solve word problems involving dollar bills, quarters, dimes, nickels and pennies. *Do not include dollars and cents in the same problem.*

Representing and interpreting data

9. Generate measurement data by measuring whole-unit lengths of several objects, or by making repeated measurements of the same object. Show the measurements by making a dot plot, where the horizontal scale is marked off in whole-number units.
10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with several categories. Connect representations on bar graph scales, rulers, and number lines that begin with zero. Solve simple Put Together/Take Apart and Compare problems using information presented in a bar graph. *See Glossary, Table 1.*

Geometry 2-G

Shapes, their attributes, and spatial reasoning

1. Understand that different categories of shapes (e.g., rhombuses, trapezoids, rectangles, and others) can be united into a larger category (e.g., quadrilaterals) on the basis of shared attributes (e.g., having four straight sides).
2. Identify and name polygons of up to six sides by the number of their sides or angles.
3. Recognize rectangles, rhombuses, squares and trapezoids as examples of quadrilaterals; draw examples of quadrilaterals that do not belong to any of these subcategories.
4. Draw and identify shapes that have specific attributes, such as number of equal sides or number of equal angles. *Sizes of lengths and angles are compared directly or visually, not compared by measuring.*
5. Recognize objects as resembling spheres, right circular cylinders, and right rectangular prisms. *Students do not need to learn formal names such as "right rectangular prism."*
6. Decompose circular and rectangular objects into two, three, or four equal parts. Describe the parts using the words *halves*, *thirds*, *half of*, *a third of*, etc.; describe the wholes as two halves, three thirds, four fourths. Recognize that a half, a third, or a fourth of a circular or rectangular object—a graham cracker, for example—is the same size regardless of its shape.

In Grade 3, instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, starting with unit fractions; (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes. Multiplication, division, and fractions are the most important developments in Grade 3.

(1) Students develop an understanding of the meanings of multiplication and division of whole numbers through the use of representations such as equal-sized groups, arrays, area models, and equal jumps on number lines for multiplication; and successive subtraction, partitioning, and sharing for division. Through this process, numbers themselves take on new meaning and are no longer only counters for single objects. They represent groups, a number of groups (for example, 3 teams of 6 people), or a comparative factor (3 times as long).

Students use properties of operations to calculate products of whole numbers. They use increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single-digit factors. By comparing a variety of solution strategies, students learn the inverse relationship between multiplication and division.

(2) Students develop an understanding of a definition of a fraction, beginning with unit fractions. They use fractions to represent parts of a whole or distances on a number line that begins with zero. Students understand that the size of a fractional part is relative to the size of the whole (for example, ¼ of a mile is longer than ¾ of a foot, even though $\frac{1}{4} < \frac{3}{4}$), and they are able to use fractions to represent numbers equal to, less than, and greater than one. They solve problems that involve comparing and ordering fractions using by models or strategies based on noticing common numerators or denominators.

(3) Students recognize area as an attribute of two-dimensional regions. They understand that area can be quantified by finding the total number of same-size units of area required to cover the shape without gaps or overlaps. They understand that a 1-unit by 1-unit square is the standard unit for measuring area. Students understand that rectangular arrays can be decomposed into identical rows or into identical columns. By decomposing rectangles into rectangular arrays of squares, students connect area measure to the area model used to represent multiplication, and they use this connection to justify using multiplication to determine the area of a rectangle. Students contrast area with perimeter.

(4) Students describe, analyze, and compare properties of two-dimensional shapes. They compare and classify the shapes by their sides and angles, and connect these with definitions of shapes. Students investigate, describe, and reason about decomposing and combining polygons to make other polygons. Through building, drawing, and analyzing two-dimensional shapes, students deepen their understanding of attributes and properties of two-dimensional objects.

Multiplication and division

1. Understand that multiplication of whole numbers is repeated addition. *For example, 5 × 7 means 7 added to itself 5 times. Products can be represented by rectangular arrays, with one factor the number of rows and the other the number of columns.*
2. ❖Understand the properties of multiplication.
   a. Multiplication is commutative. *For example, the total number in 3 groups with 6 things each is the same as the total number in 6 groups with 3 things each, that is, 3 × 6 = 6 × 3.*
   b. Multiplication is associative. *For example, 4 × 3 × 2 can be calculated by first calculating 4 × 3 = 12 then calculating 12 × 2 = 24, or by first calculating 3 × 2 = 6 then calculating 4 × 6 = 24.*
   c. 1 is the multiplicative identity.
   d. Multiplication distributes over addition (the distributive property). *For example, 5 × (3 + 4) = (5 × 3) + (5 × 4).*
3. ❖Explain and justify properties of multiplication and division, e.g., by using representations such as objects, drawings, and story contexts. Include properties such as:
   a. Changing the order of two factors does not change their product.
   b. The product of a number and 1 is the number.
   c. Dividing a nonzero number by itself yields 1.
   d. Multiplying a quantity by a nonzero number, then dividing by the same number, yields the original quantity.
   e. When one factor in a product is multiplied by a number and another factor divided by the same number, the product is unchanged. *Limit to multiplying and dividing by numbers that result in whole-number quotients.*
   f. Products where one factor is a one-digit number can be computed by decomposing one factor as the sum of two numbers, multiplying each number by the other factor, and adding the two products.
4. ❖Understand that multiplication and division have an inverse relationship. *For example, if 5 × 7 = 35 is known, then 35 ÷ 5 = 7 and 35 ÷ 7 = 5 are also known. The division 35 ÷ 5 means the number which yields 35 when multiplied by 5; because 5 × 7 = 35, then 35 ÷ 5 = 7.*
5. ❖Understand that when all but one of three numbers in a multiplication or division equation are known, the unknown number can be found. *Limit to cases where the unknown number is a whole number.*

Describing situations and solving problems with multiplication and division

6. Understand that multiplication and division apply to situations with equal groups, arrays or area, and comparing. *See Glossary, Table 2.*
7. ❖Solve word problems involving multiplication and division within 100, using an equation with a symbol for the unknown to represent the problem. *This standard is limited to problems with whole-number quantities and whole-number quotients. Focus on situations described in the Glossary, Table 2.*
8. ❖Solve one- or two-step word problems involving the four operations. *This standard is limited to problems with whole-number quantities and whole-number quotients.*
9. Understand that multiplication and division can be used to compare quantities (see Glossary, Table 2); solve multiplicative comparison problems with whole numbers (problems involving the notion of "times as much").

Number—Base Ten 3-NBT

Numbers up to 10,000

1. Understand that 1000 can be thought of as a bundle of hundreds—a unit called a "thousand."
2. Read and write numbers to 10,000 using base-ten notation, number names, and expanded form.
3. Count within 10,000; skip count by 10s, 100s and 1000s.
4. Understand that when comparing four-digit numbers, if one number has more thousands, it is greater; if the amount of thousands is the same in each number, then the number with more hundreds is greater; and so on. Compare and order four-digit numbers based on meanings of the digits.

Adding and subtracting in base ten

5. Mentally calculate sums and differences of multiples of 10, 100, and 1000. *For example, mentally calculate 1300 – 800*
6. Given a number from 1000 to 9000, mentally find 100 more or 100 less than the number, and mentally find 1000 more or 1000 less than the number, without counting.

Multiplying and dividing in base ten

7. ❖Understand that the distributive property is at the heart of strategies and algorithms for multiplication and division computations with numbers in base-ten notation; use the distributive property and other properties of operations to explain patterns in the multiplication table and to derive new multiplication and division equations from known ones. *For example, the distributive property makes it possible to multiply 4 × 7 by decomposing 7 as 5 + 2 and using 4 × 7 = 4 × (5 + 2) = (4 × 5) + (4 × 2) = 20 + 8 = 28.*
8. Fluently multiply one-digit numbers by 10.
9. Use a variety of strategies for multiplication and division within 100. By end of Grade 3, know from memory products of one-digit numbers where one of the factors is 2, 3, 4, or 5.

Number—Fractions 3-NF

Fractions as representations of numbers

1. Understand that a unit fraction corresponds to a point on a number line. *For example, 1/3 represents the point obtained by decomposing the interval from 0 to 1 into three equal parts and taking the right-hand endpoint of the first part. In Grade 3, all number lines begin with zero.*
2. Understand that fractions are built from unit fractions. *For example, 5/4 represents the point on a number line obtained by marking off five lengths of ¼ to the right of 0.*
3. Understand that two fractions are equivalent (represent the same number) when both fractions correspond to the same point on a number line. Recognize and generate equivalent fractions with denominators 2, 3, 4, and 6 (e.g., $^1/_2 = {}^2/_4$, $^4/_6 = {}^2/_3$), and explain the reasoning.
4. Understand that whole numbers can be expressed as fractions. *Three important cases are illustrated by the examples 1 = 4/4, 6 = 6/1, and 7 = (4 × 7)/4. Expressing whole numbers as fractions can be useful for solving problems or making calculations.*

Fractional quantities

5. Understand that fractions apply to situations where a whole is decomposed into equal parts; use fractions to describe parts of wholes. *For example, to show 1/3 of a length, decompose the length into 3 equal parts and show one of the parts.*
6. Compare and order fractional quantities with equal numerators or equal denominators, using the fractions themselves, tape diagrams, number line representations, and area models. Use > and < symbols to record the results of comparisons.

Measurement and Data 3-MD

The number line and units of measure

1. Understand that a number line has an origin (0) and a unit (1), with whole numbers one unit distance apart. Use number lines to represent problems involving distances, elapsed time, amounts of money and other quantities. *In such problems, the interval from 0 to 1 may represent a unit of distance, time, money, etc.*
2. Understand that a unit of measure can be decomposed into equal-sized parts, whose sizes can be represented as fractions of the unit. Convert measurements in one unit to measurements in a smaller or a larger unit, and solve problems involving such mixed units (e.g., feet and inches, weeks and days).

Perimeter and area

3. Understand and use concepts of area measurement.
   a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
   b. A plane figure which can be covered without gaps or overlaps by *n* unit squares has an area of *n* square units. Areas of some other figures can be measured by using fractions of unit squares or using figures whose areas have been found by decomposing other figures.
   c. When measuring an area, if a smaller unit of measurement is used, more units must be iterated to measure the area in those units.
   d. Determine and compare areas by counting square units. *Use cm^2, m^2, in^2, ft^2, and improvised units.*
4. Understand that multiplication of whole numbers can be represented by area models; a rectangular region that is *a* length units by *b* length units (where *a* and *b* are whole numbers) and tiled with unit squares illustrates why the rectangle encloses an area of *a* × *b* square units.
5. Solve problems involving perimeters of polygons.
   a. Add given side lengths, and multiply for the case of equal side lengths.
   b. ❖Find an unknown length of a side in a polygon given the perimeter and all other side lengths; represent these problems with equations involving a letter for the unknown quantity.
   c. Exhibit rectangles with the same perimeter and different area, and with the same area and different perimeter.

Representing and interpreting data

6. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *Include single-unit scales and multiple-unit scales; for example, each square in the bar graph might represent 1 pet, 5 pets, or 10 pets.*
7. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a dot plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

Geometry 3-G

Properties of 2-dimensional shapes

1. Understand that a given category of plane figures (e.g., triangles) has subcategories (e.g., isosceles triangles) defined by special properties.
2. Describe, analyze, compare and classify two-dimensional shapes by their properties and connect these properties to the classification of shapes into categories and subcategories (e.g., squares are "special rectangles" as well as "special rhombuses"). *Focus on triangles and quadrilaterals.*

Structuring rectangular shapes

3. Understand that rectangular regions can be tiled with squares in rows and columns, or decomposed into such arrays.
4. Structure a rectangular region spatially by decomposing it into rows and columns of squares. Determine the number of squares in the region using that spatial structure (e.g., by multiplication or skip counting).
5. Understand that shapes can be decomposed into parts with equal areas; the area of each part is a unit fraction of the whole. *For example, when a shape is partitioned into 4 parts with equal area, the area of each part is ¼ of the area of the shape.*

In Grade 4, instructional time should focus on four critical areas: (1) continuing to develop understanding and fluency with whole number multiplication, and developing understanding of multi-digit whole number division; (2) developing an understanding of addition and subtraction of fractions with like denominators, multiplication of fractions by whole numbers, and division of whole numbers with fractional answers; (3) developing an understanding of area; and (4) understanding that geometric figures can be analyzed and classified using properties such as having parallel sides, perpendicular sides, particular angle measures, and symmetry.

(1) Students use understandings of multiplication to develop fluency with multiplication and division within 100. They apply their understanding of models for multiplication (equal-sized groups, arrays, area models, equal intervals on a number line), place value, and properties of operations, in particular the distributive property, as they develop, discuss, and use efficient, accurate, and generalizable methods to compute products of multi-digit whole numbers. Depending on the numbers and the context, they select and accurately apply appropriate methods to estimate products or mentally calculate products. They develop fluency with efficient procedures, including the standard algorithm, for multiplying whole numbers; understand and explain why the procedures work based on place value and properties of operations; and use them to solve problems. Students apply their understanding of models for division, place value, properties of operations, and the relationship of division to multiplication as they develop, discuss, and use efficient, accurate, and generalizable procedures to find quotients involving multi-digit dividends. They select and accurately apply appropriate methods to estimate quotients and mentally calculate quotients, depending upon the context and the numbers involved.

(2) Students develop understanding of operations with fractions. They apply their understandings of fractions as built from unit fractions, and use fraction models to represent the addition and subtraction of fractions with like denominators. Students use the meaning of fractions and the meaning of multiplication to understand and explain why the procedure for multiplying a fraction by a whole number makes sense. They understand and explain the connection between division and fractions.

(3) Students develop their understanding of area. They understand and apply the area formula for rectangles and also find areas of shapes that can be decomposed into rectangles. They select appropriate units, strategies (e.g., decomposing shapes), and tools for solving problems that involve estimating and measuring area.

(4) Students describe, analyze, compare, and classify two-dimensional shapes. Through building, drawing, and analyzing two-dimensional shapes, students deepen their understanding of properties of two-dimensional objects and the use of them to solve problems involving symmetry.

Multiplication and division

1. Find the factor pairs for a given whole number less than or equal to 100; recognize prime numbers as numbers greater than 1 with exactly one factor pair. *Example: The factor pairs of 42 are {42, 1}, {21, 2}, {14, 3}, {7, 6}.*

Problem solving with the four operations

2. ❖Solve multistep word problems involving the four operations with whole numbers.
3. ❖Solve problems posed with both whole numbers and fractions. Understand that while 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 regardless of which number representations are involved.
4. Assess the reasonableness of answers using mental computation and estimation strategies including rounding to the nearest 10 or 100.

Number—Base Ten 4-NBT

Numbers up to 100,000

1. Understand that a digit in one place represents ten times what it represents in the place to its right. *For example, 7 in the thousands place represents 10 times as many as than 7 in the hundreds place.*
2. Read, write and compare numbers to 100,000 using base-ten notation, number names, and expanded form.

Multiplying and dividing in base ten

3. Understand how the distributive property and the expanded form of a multi-digit number can be used to calculate products of multi-digit numbers.
   a. ❖The product of a one-digit number times a multi-digit number is the sum of the products of the one-digit number with the summands in the expanded form of the multi-digit number. Illustrate this numerically and visually using equations, rectangular arrays, area models, and tape diagrams.
   b. Algorithms for multi-digit multiplication can be derived and explained by writing multi-digit numbers in expanded form and applying the distributive property.
4. Fluently multiply and divide within 100. By end of Grade 4, know from memory products of one-digit numbers where one of the factors is 6, 7, 8, or 9.
5. Mentally calculate products of one-digit numbers and one-digit multiples of 10, 100, and 1000 (e.g., 7×6000). Mentally calculate whole number quotients with divisors of 10 and 100.
6. Compute products and whole number quotients of two-, three- or four-digit numbers and one-digit numbers, and compute products of two two-digit numbers, using strategies based on place value, the properties of operations, and/or the inverse relationship between multiplication and division; explain the reasoning used.
7. Explain why multiplication and division strategies and algorithms work, using place value and the properties of operations. *Include explanations supported by drawings, equations, or both. A range of reasonably efficient algorithms may be covered, not only the standard algorithms.*
8. Compute products of two-digit numbers using the standard algorithm, and check the result using estimation.
9. Given two whole numbers, find an equation displaying the largest multiple of one which is less than or equal to the other. *For example, given 325 and 7, the equation $325 = 46 \times 7 + 3$ shows the largest multiple of 7 less than or equal to 325.*

Number—Fractions 4-NF

Operations on fractions

1. Understand addition of fractions:
   a. Adding or subtracting fractions with the same denominator means adding or subtracting copies of unit fractions. *For example, $2/3 + 4/3$ is 2 copies of $1/3$ plus 4 copies of $1/3$, or 6 copies of $1/3$ in all, that is $6/3$.*
   b. Sums of related fractions can be computed by replacing one with an equivalent fraction that has the same denominator as the other. *For example, the sum of the related fractions $2/3$ and $1/6$ can be computed by rewriting $2/3$ as $4/6$ and computing $4/6 + 1/6 = 5/6$.*
2. Compute sums and differences of fractions with like denominators, add and subtract related fractions within 1 (e.g., $1/2 + 1/4$, $3/10 + 4/100$, $7/8 - 1/4$), and solve word problems involving these operations.
3. ❖ Understand that the meaning of multiplying a fraction by a whole number comes from interpreting multiplication by a whole number as repeated addition. *For example, $3 \times 2/5 = 6/5$ because $3 \times 2/5 = 2/5 + 2/5 + 2/5 = 6/5$.*

4. Solve word problems that involve multiplication of fractions by whole numbers; represent multiplication of fractions by whole numbers using tape diagrams and area models that explain numerical results.
5. ❖Understand that fractions give meaning to the quotient of any whole number by any non-zero whole number. *For example, 3 ÷ 4 = 3/4, because 3/4 multiplied by 4 equals 3. (The division 3 ÷ 4 means the number which yields 3 when multiplied by 4.)*
6. Solve word problems that involve non-whole number quotients of whole numbers; represent quotients of whole numbers using tape diagrams and area models that explain numerical results.

Decimal concepts

7. Understand that a two-digit decimal is a sum of fractions with denominators 10 and 100. *For example, 0.34 is 3/10 + 4/100.*
8. Use decimals to hundredths to describe parts of wholes; compare and order decimals to hundredths based on meanings of the digits; and write fractions of the form *a*/10 or *a*/100 in decimal notation. *Use > and < symbols to record the results of comparisons.*

Measurement and Data 4-MD

The number line and units of measure

1. Understand that the unit length on a number line (interval from 0 to 1) can be divided into parts of equal fractional length. Draw number line representations of problem situations involving length, height, and distance including fractional or decimal units. *For example, show distances along a race course to tenths of a mile on a number line, by dividing the unit length into 10 equal parts to get parts of length 1/10; the endpoint of the segment of 1/10 length from 0 represents 1/10 of a mile from the starting point of the race. In Grade 4, all numbers lines begin with zero.*

Perimeter and area

2. Understand that if a region is decomposed into several disjoint pieces, then the area of the region can be found by adding the areas of the pieces (when these areas are expressed in the same units).
3. ❖Apply the formulas for area of squares and rectangles. Measure and compute whole-square-unit areas of objects and regions enclosed by geometric figures which can be decomposed into rectangles. *Limit to situations requiring products of one-or two-digit numbers.*
4. ❖Find one dimension of a rectangle, given the other dimension and the area or perimeter; find the length of one side of a square, given the area or perimeter. Represent these problems using equations involving a letter for the unknown quantity.

Angle measurement

5. Understand what an angle is and how it is measured:
   a. An angle is formed by two rays with a common endpoint.
   b. An angle is measured by reference to a circle with its center at the common endpoint of the rays. The measure of an angle is based on the fraction of the circle between the points where the two rays intersect the circle.
   c. A one-degree angle turns through 1/360 of a circle, where the circle is centered at the common endpoint of its rays; the measure of a given angle is the number of one-degree angles turned with no gaps or overlaps.
6. 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, representing these problems with equations involving a letter for the unknown quantity.

Representing and interpreting data

7. Make a dot plot to display a data set of measurements in 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. *For example, from a dot plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.*

Geometry 4-G

Lines and angles

1. Draw points, lines, line segments, rays, angles, and perpendicular and parallel lines; identify these in plane figures.
2. Identify right angles, and angles smaller than or greater than a right angle in geometric figures; recognize right triangles.
3. Classify shapes based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of specified size.

Line symmetry

4. Understand that a line of symmetry for a geometric figure is a line across the figure such that the figure can be folded along the line into matching parts

5. Identify line-symmetric figures; given a horizontal or vertical line and a drawing that is not a closed figure, complete the drawing to create a figure that is symmetric with respect to the given line.

Mathematics | Grade 5

In Grade 5, instructional time should focus on four critical areas: (1) developing fluency with addition and subtraction of fractions, developing understanding of the multiplication of fractions and of division of fractions in limited cases (fractions divided by whole numbers and whole numbers divided by unit fractions); (2) developing understanding of and fluency with division of multi-digit whole numbers; (3) developing understanding of and fluency with addition, subtraction, multiplication, and division of decimals; and (4) developing understanding of volume.

(1) Students apply their understanding of fractions and fraction models to represent the addition and subtraction of fractions with unlike denominators as equivalent calculations with like denominators. They develop fluency in calculating sums and differences of fractions, and make reasonable estimates of them. Students also use the meaning of fractions, of multiplication and division, and the inverse relationship between multiplication and division to understand and explain why the procedures for multiplying and dividing fractions make sense. (Note: this is limited to the case of dividing fractions by whole numbers and whole numbers by unit fractions.)

(2) Students develop fluency with division of whole numbers; understand why procedures work based on the meaning of base-ten notation and properties of operations; and use these procedures to solve problems. Based on the context of a problem situation, they select the most useful form of the quotient for the answer and interpret it appropriately.

(3) Students apply their understandings of models for decimals, decimal notation, and properties of operations to compute sums and differences of finite decimals. They develop fluency in these computations, and make reasonable estimates of their results. Students use the relationship between decimals and fractions, as well as the relationship between finite decimals and whole numbers (i.e., a finite decimal multiplied by an appropriate power of 10 is a whole number), to understand and explain why the procedures for multiplying and dividing finite decimals make sense. They compute products and quotients of finite decimals efficiently and accurately.

(4) Students recognize volume as an attribute of three-dimensional space. They understand that volume can be quantified by finding the total number of same-size units of volume required to fill the space without gaps or overlaps. They understand that a 1-unit by 1-unit by 1-unit cube is the standard unit for measuring volume. They select appropriate units, strategies, and tools for solving problems that involve estimating and measuring volume. They decompose three-dimensional shapes and find volumes of right rectangular prisms by viewing them as decomposed into layers of arrays of cubes. They measure necessary attributes of shapes in order to determine volumes to solve problems.

Whole numbers in base ten

1. Compute quotients of two-, three-, and four-digit whole numbers and two-digit whole numbers using strategies based on place value, the properties of operations, and/or the inverse relationship between multiplication and division; explain the reasoning used.
2. Explain why division strategies and algorithms work, using place value and the properties of operations. *Include explanations supported by drawings, equations, or both. A range of reasonably efficient algorithms may be covered, not only the standard algorithm.*
3. Use the standard algorithm to compute quotients of two-, three- and four-digit whole numbers and two-digit whole numbers, expressing the results as an equation (e.g., $145 = 11 \times 13 + 2$ or $120 \div 7 = 17\ 1/7$).
4. Fluently add, subtract and multiply whole numbers using the standard algorithm for each operation.

Decimal concepts

5. Read, write, and compare numbers expressed as decimals. Understand that a digit in one place represents ten times what it represents in the place to its right. *For example, 7 in the hundredths place represents 10 times as many as 7 in the thousandths place.*
6. Round decimals (to hundredths) to the nearest whole number.
7. Write fractions in decimal notation for fractions with denominators 2, 4, 5, 8, 10, and 100.

Operations on decimals

8. Understand that in adding or subtracting finite decimals, one adds or subtracts like units (tenths and tenths, hundredths and hundredths, etc.) and sometimes it is necessary to compose or decompose a higher value unit.
9. Fluently 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, for numbers expressed as finite decimals.
10. Compute sums and differences of finite decimals by expressing the decimals as fractions and adding the fractions. *For example, $0.05 + 0.91 = 5/100 + 91/100 = 96/100$ or 0.96.*
11. Compute sums, differences, products, and quotients of finite decimals using strategies based on place value, the properties of operations, and/or the inverse relationships between addition and subtraction and between multiplication and division; explain the reasoning used. *For example, transform $1.5 \div 0.3$ into $15 \div 3 = 5$.*
12. Explain why strategies and algorithms for computations with finite decimals work. *Include explanations supported by drawings, equations, or both. A range of reasonably efficient algorithms may be covered, not only the standard algorithm.*
13. Use the standard algorithm for each of the four operations on decimals (to hundredths).
14. Solve word problems involving operations on decimals.

Number—Fractions 5-NF

Fraction equivalence

1. ❖Understand fraction equivalence:
   a. Multiplying the numerator and denominator of a fraction by the same nonzero whole number produces an equivalent fraction. *For example, $2/3 = (2 \times 4)/(3 \times 4) = 8/12$. ($1/3$ is 4 copies of $1/12$, so $2/3$ is 8 copies of $1/12$.)*
   b. Equivalent fractions correspond to the same point on a number line. *In Grade 5, all numbers lines begin with zero.*
   c. When the numerators of equivalent fractions are divided by their denominators, the resulting quotients are the same.
2. Identify pairs of equivalent fractions; given two fractions with unlike denominators, find two fractions with the same denominator and equivalent to each.
3. Compare and order fractions with like or unlike denominators, e.g., by finding equivalent fractions with the same denominator, and describe the sizes of fractional quantities from a context with reference to the context. *Compare using the fractions themselves, tape diagrams or number line representations, and area models.*

Operations on fractions

4. Understand that sums and differences of fractions with unlike denominators can be computed by replacing each with an equivalent fraction so that the resulting fractions have the same denominator. *For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$.*
5. Compute sums and differences of fractions with like or unlike denominators, and solve word problems involving addition and subtraction of fractions. Estimate fraction sums and differences to assess the reasonableness of results.
6. ❖ Understand that multiplying a fraction by a/b means taking a parts of a decomposition of the fraction into b equal parts. *For example, to multiply $2/3 \times 4/5 = 8/15$, one may decompose a whole of size $4/5$ into 3 equal parts; each part has size $4/15$. Two*

of these parts then make 8/15, so 2/3 × 4/5 = 8/15. (In general, a/b × p/q = ap/bq.) This standard includes multiplication of a whole number by a fraction, by writing the whole number as fraction with denominator 1.

7. Understand that the area of a rectangle with side lengths a/b and c/d is the product $a/b \times p/q$. This extends the area formula for rectangles to fractional side lengths, and also allows products of fractions to be represented visually as areas of rectangles.
8. ❖Explain and justify the properties of operations with fractions, e.g., by using equations, number line representations, area models, and story contexts.
9. Understand division of unit fractions by whole numbers and division of whole numbers by unit fractions:
   a. Dividing a unit fraction 1/b by a whole number a results in a smaller unit fraction 1/a × b. *For example, 1/3 ÷ 2 = 1/6 because when 1/3 is divided into 2 equal parts, the size of each part is 1/6; a third of a pound of cheese shared between two people will give each person a sixth of a pound. (Using the inverse relationship between multiplication and division: 1/3 ÷ 2 = 1/6 because 1/6 × 2 = 1/3.)*
   b. Dividing a whole number a by a unit fraction 1/b results in a greater whole number a × b. *For example, 2 ÷ 1/3 = 6 because 6 is the number of 1/3s in 2; two pounds of cheese will make six portions of a third of a pound each. (Using the inverse relationship between multiplication and division: 2 ÷ 1/3 = 6 because 6 × 1/3 = 2.)*
10. Calculate products of fractions, and quotients of unit fractions and nonzero whole numbers (with either as divisor), and solve word problems involving these operations. Represent these operations using equations, area models and length models.
11. Understand that a mixed number such as 3 2/5 represents the sum of a whole number and a fraction less than one. Because a whole number can be represented as a fraction (3 = 3/1), and the sum of two fractions is also a fraction, a mixed number also represents a fraction (3 2/5 = 3 + 2/5 = 15/5 + 2/5 = 17/5). Write fractions as equivalent mixed numbers and vice versa.

Measurement and Data 5-MD

Units of measure

1. Understand that quantities expressed in like units can be added or subtracted giving a sum or difference with the same unit; different quantities may be multiplied to obtain a new kind of quantity (e.g., as when two lengths are multiplied to compute an area, or when an area and a length are multiplied to compute a volume).
2. Understand that when measuring a quantity, if a smaller unit is used, more units must be iterated to measure the quantity in those units.
3. Convert among different-sized standard measurement units within a given measurement system (e.g., feet to yards, centimeters to meters) and use conversion in solving multi-step word problems.

Volume

4. Understand concepts of volume measurement:
   a. A cube with side length 1 unit (a unit cube) is said to have "one cubic unit" of volume, and can be used to measure volume.
   b. The volume of a right rectangular prism with whole-unit side lengths can be found by packing it with unit cubes and using multiplication to count their number. *For example, decomposing a right rectangular prism 3 length units wide by 5 units deep by 2 units tall shows that its volume is 3 × 5 × 2 cubic units. The base of the prism has area 3 × 5 square units, so the volume can also be expressed as the height times the area of the base.*
   c. When measuring a volume, if a smaller unit is used, more units must be iterated to measure the volume in those units.
   d. If a solid figure is decomposed into several disjoint pieces, then the volume enclosed by the figure can be found by adding the volumes of the pieces (when these volumes are expressed in the same units).
5. Decompose right rectangular prisms into layers of arrays of cubes; determine and compare volumes of right rectangular prisms, and objects well described as right rectangular prisms, by counting cubic units (using cm^3, m^3, in^3, ft^3, and improvised units).

Representing and interpreting data

6. Make a dot plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in dot plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.*

Geometry 5-G

Coordinates

1. Understand that a pair of perpendicular number lines, called axes, defines a coordinate system.
   a. Their intersection is called the origin, usually arranged to coincide with the 0 on each line.
   b. A given point in the plane can be located by using an ordered pair of numbers, called its coordinates. The first number indicates how far to travel from the origin in the direction of one axis, the second number indicates how far to travel in the direction of the second axis.
   c. To avoid ambiguity, conventions dictate that the names of the two axes and the coordinates correspond (e.g., *x*-axis and *x*-coordinate, *y*-axis and *y*-coordinate).
2. Graph points in the first quadrant of the coordinate plane, and identify the coordinates of graphed points. Where ordered pairs arise in a problem situation, interpret the coordinate values in the context of the situation.

Plane figures

3. Understand that properties belonging to a category of plane figures also belong to all subcategories of that category. *For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.*
4. Classify plane figures in a hierarchy based on properties.

In Grade 6, instructional time should focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division; (2) developing understanding of and fluency with division of fractions and developing fluency with multiplication of fractions; (3) developing understanding of and using formulas to determine areas of two-dimensional shapes and distinguishing between volume and surface area of three-dimensional shapes; and (4) writing, interpreting, and using expressions and equations.

(1) Students use reasoning about multiplication and division with quantities to solve ratio and rate problems. By viewing equivalent ratios and rates as deriving from, and extending, pairs of rows (or columns) in the multiplication table, and by analyzing simple drawings that indicate the relative size of quantities, students extend whole number multiplication and division to ratios and rates. Thus students expand their repertoires of problems in which multiplication and division can be used to solve problems, and they build on their understanding of fractions to understand ratios. Students solve a wide variety of problems involving ratios and rates.

(2) Students use the meaning of fractions, the meanings of multiplication and division, and the inverse relationship between multiplication and division to understand and explain why the procedures for dividing fractions make sense. Students are able to add, subtract, multiply, and divide fractions fluently, and use these operations to solve problems, including multi-step problems and problems involving measurement.

(3) Students reason about relationships among shapes to determine area and surface area. They find areas of right triangles, other triangles, and special quadrilaterals by decomposing these shapes, rearranging or removing pieces, and relating the shapes to rectangles. Using these methods, students discuss, develop, and justify formulas for areas of triangles and parallelograms. Students find areas of polygons and surface areas of prisms and pyramids by decomposition into pieces whose area they can determine.

(4) Students write mathematical expressions and equations that correspond to given situations, they evaluate expressions, and they use expressions and formulas to solve problems. Students understand that a variable is a letter standing for a number, where the number is unknown, or where, for the purpose at hand, it can be any number in the domain of interest. Students understand that expressions in different forms can be equivalent, and they use the laws of arithmetic to rewrite expressions to represent a total quantity in a different way (such as to represent it more compactly or to feature different information). Students know that the solutions of an equation are the values of the variables that make the equation true. Students use properties of operations and the idea of maintaining the equality of both sides of an equation to solve simple one-step equations. Students construct and analyze tables, such as tables of quantities that are in equivalent ratios, and they use equations (such as $3x = y$) to describe relationships in a table.

Having represented and analyzed data in Grades K–5, students in Grade 6 begin a serious engagement with statistics. The study of variability in data distinguishes statistics from mathematics. Students beginning their study of variability must first recognize statistical questions as those that anticipate variability in the answers. From this conceptual beginning, they learn to describe and summarize distributions of data—an activity that goes beyond merely computing summary statistics to include assessing the shape of a distribution and considering other issues as described in the standards.

Ratios

1. Understand the concept of a ratio: Two quantities are said to be in a ratio of a to b when for every a units of the first quantity there are b units of the second. *For example, in a flock of birds, the ratio of wings to beaks might be 2 to 1; this ratio is also written 2:1. In Grade 6, limit to ratios of whole numbers.*
2. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane.
3. Solve for an unknown quantity in a problem involving two equal ratios.
4. Describe categorical data sets using ratios (e.g., for every vote candidate A received, candidate C received nearly three votes; the ratio of type O blood donors to type B blood donors was 9:2).

Unit rates

5. Understand that for a ratio a:b, the corresponding unit rate is a/b. If there are a units of the first quantity for every b units of the second, where $b \neq 0$, then there are a/b units of the first quantity for 1 unit of the second. *For example, if a recipe has a ratio of 3 cups of flour to 4 cups of sugar, then there is 3/4 cup of flour for each cup of sugar.*
6. ❖Solve unit rate problems including unit pricing and constant speed, including reasoning with equations such as $d = r \times t$, $r = d/t$, $t = d \div r$.

The Number System 6-NS

Operations

1. Understand that the properties of operations apply to, and can be used with, addition and multiplication of fractions.
2. Understand that division of fractions is defined by viewing a quotient as the solution for an unknown-factor multiplication problem. *For example, (2/3) ÷ (5/7) = 14/15 because (5/7) × (14/15) = (2/3).*
3. Solve word problems requiring arithmetic with fractions, using the properties of operations and converting between forms as appropriate; estimate to check reasonableness of answers.
4. Fluently divide whole numbers using the standard algorithm.

The system of rational numbers

5. Understand that a number is a point on the number line.
6. Understand that some quantities have opposite directions, such as elevation above and below sea level or money received and spent. These quantities can be described using positive and negative numbers.
7. Understand that number lines familiar from previous grades can be extended to represent negative numbers to the left of zero. *Number lines can also be vertically oriented, as when a coordinate system is formed. Then the conventional terms "to the right of 0" and "to the left of 0" conventionally become "above 0" and "below 0."*
   a. Two different numbers, such as 7 and –7, that are equidistant from zero on a number line are said to be opposites of one another. The opposite of the opposite of a number is the number itself, e.g., –(–3) = 3. The opposite of 0 is 0.
   b. The absolute value of a number q, written $|q|$, is its distance from zero, and is always positive or zero.
   c. Fractions and their opposites form a system of numbers called the rational numbers, represented by points on a number line. Whole numbers and their opposites form the integers, which are contained in the rational numbers.
   d. Previous ways of comparing positive numbers can be extended to the rational numbers. The statement $p > q$ means that p is located to the right of q on a number line, while $p < q$ means that p is located to the left of q on a number line. Comparisons can also be made by reasoning appropriately about signed quantities (e.g, –3 > –7 makes sense because –3°C is a higher temperature than –7°C). The way two numbers compare does not always agree with the way their absolute values compare; for example, –3 > –7, but $|-3| < |-7|$.
8. Find and position rational numbers, including integers, on a number line.
9. Use rational numbers to describe quantities such as elevation, temperature, account balance and so on. Compare these quantities, recording the results of comparisons using > and < symbols.
10. Graph points and identify coordinates of points on the coordinate plane in all four quadrants. Where ordered pairs arise in a problem situation, interpret the coordinate values in the context of the situation.

Expressions

1. Understand that an expression records operations with numbers or with letters standing for numbers. *For example, the expression 2 · (8 + 7) records adding 8 and 7 then multiplying by 2; the expression 5 − y records subtracting y from 5. Focus on the operations of addition, subtraction, multiplication and division, with some attention to square or cube roots.*
2. Understand the use of variables in expressions and algebraic conventions:
   a. A letter is used to stand for a number in an expression in cases where the number is unknown, or where, for the purpose at hand, it can be any number in a domain of interest. Such a letter is called a variable.
   b. If a variable appears in an expression more than once (e.g., as in $t + 3t$), that variable is understood to refer to the same number in each instance.
   c. The multiplication symbol can be omitted when writing products of two or more variables or of a number and a variable. *For example, the expressions xy and 2a indicate $x \times y$ and $2 \times a$, respectively.*
3. Describe the structure and elements of simple expressions using correct terminology (sum, term, product, factor, quotient, coefficient); describe an expression by viewing one or more of its parts as a single entity. *For example, describe the expression 2 · (8 + 7) as a product of two factors, by viewing (8 + 7) as a single entity. The second factor is itself a sum of two terms.*
4. Understand and generate equivalent expressions:
   a. Understand that two expressions are equivalent if they name the same number regardless of which numbers the variables in them stand for. *For example, the expressions $x + 3$ and $4x$ are not equivalent, even though they happen to name the same number in the case when x stands for 1.*
   b. Understand that applying the laws of arithmetic to an expression results in an equivalent expression. *For example, applying the distributive law to the expression $3 \cdot (2 + x)$ leads to the equivalent expression $6 + 3x$. Applying the distributive law to $y + y + y$ leads to the equivalent expression $y \times (1 + 1 + 1)$, i.e., $y \times 3$ and then the commutative law of multiplication leads to the equivalent expression $3y$.*
   c. Generate equivalent expressions to reinterpret the meaning of an expression. *For example, $2t + 3t$ records the addition of twice a quantity to three times itself; applying the distributive law leads to the equivalent expression $5t$, so that the original expression can be reinterpreted as recording five times the quantity.*

Quantitative relationships and the algebraic approach to problems

5. Understand that an equation is a statement that two expressions are equal, and a solution to an equation is a replacement value of the variable (or replacement values for all the variables if there is more than one) that makes the equation true.
6. Using the idea of maintaining equality between both sides of the equation, solve equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.
7. Choose variables to represent quantities in a word problem, and construct simple expressions or equations to solve the problem by reasoning about the quantities.
8. Understand that a variable can be used to represent a quantity that can change, often in relationship to another changing quantity, and an equation can express one quantity, thought of as the dependent variable, in terms of other quantities, thought of as the independent variables; represent a relationship between two quantities using equations, graphs, and tables; translate between any two of these representations. *For example, describe the terms in a sequence $t = 3, 6, 9, 12, \ldots$ of multiples of 3 by writing the equation $t = 3n$ for $n = 1, 2, 3, 4, \ldots$.*

Geometry 6-G

Properties of area, surface area, and volume

1. Understand that plane figures can be decomposed, reassembled, and completed into new figures; use this technique to derive area formulas.
2. Find the areas enclosed by right triangles, other triangles, special quadrilaterals, and polygons (by composing into rectangles or decomposing into triangles and other shapes).
3. Understand that three-dimensional figures can be formed by joining rectangles and triangles along their edges to enclose a solid region with no gaps or overlaps. The surface area is the sum of the areas of the enclosing rectangles and triangles.
4. Find the surface area of cubes, prisms and pyramids (include the use of nets to represent these figures).
5. Solve problems involving area, volume and surface area of objects.
6. Give examples of right rectangular prisms with the same surface area and different volumes, and with the same volume and different surface areas.

7. ❖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 their side lengths, and to express their side lengths in terms of their area or volume.

Statistics and Probability 6-SP

Variability and measures of center

1. Understand that a statistical question is one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question , but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*
2. Understand that a set of data generated by answers to a statistical question typically shows variability—not all of the values are the same—and yet often the values show an overall pattern, often with a tendency to cluster.
   a. A measure of center for a numerical data set summarizes all of its values using a single number. The median is a measure of center in the sense that approximately half the data values are less than the median, while approximately half are greater. The mean is a measure of center in the sense that it is the value that each data point would take on if the total of the data values were redistributed fairly, and in the sense that it is the balance point of a data distribution shown on a dot plot.
   b. A measure of variation for a numerical data set describes how its values vary using a single number. The interquartile range and the mean absolute deviation are both measures of variation.

Summarizing and describing distributions

3. Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
4. Summarize numerical data sets, such as by:
   a. Reporting the number of observations.
   b. Describing the nature of the variable, including how it was measured and its units of measurement. *Data sets can include fractional values at this grade but not negative values.*
   c. Describing center and variation, as well as describing any overall pattern and any striking deviations from the overall pattern.
5. Relate the choice of the median or mean as a measure of center to the shape of the data distribution being described and the context in which it is being used. Do the same for the choice of interquartile range or mean average deviation as a measure of variation. *For example, why are housing prices often summarized by reporting the median selling price, while students' assigned grades are often based on mean homework scores?*

Mathematics | Grade 7

In Grade 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and solving linear equations; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence; and (4) drawing inferences about populations based on samples.

(1) Students extend their understanding of ratios and develop understanding of proportionality to solve single- and multi-step problems. Students use their understanding of ratios and proportionality to solve a wide variety of percent problems, including those involving discounts, interest, taxes, tips, and percent increase or decrease. Students solve problems about similar objects (including geometric figures) by using scale factors that relate corresponding lengths between the objects or by using the fact that relationships of lengths within an object are preserved in similar objects. Students graph proportional relationships and understand the unit rate informally as a measure of the steepness of the related line, called the slope. They distinguish proportional relationships from other relationships.

(2) Students develop a unified understanding of number, recognizing fractions, decimals, and percents as different representations of rational numbers. Students extend addition, subtraction, multiplication, and division and their properties to all rational numbers, including integers and numbers represented by complex fractions and negative fractions. By applying the laws of arithmetic, and by viewing negative numbers in terms of everyday contexts (e.g., amounts owed or temperatures below zero), students explain why the rules for adding, subtracting, multiplying, and dividing with negative numbers make sense. They use the arithmetic of rational numbers as they formulate and solve linear equations in one variable and use these equations to solve problems.

(3) Students use ideas about distance and angles, how they behave under dilations, translations, rotations and reflections, and ideas about congruence and similarity to describe and analyze figures and situations in two- and three-dimensional space and to solve problems, including multi-step problems. Students prove that various configurations of lines give rise to similar triangles because of the angles created when a transversal cuts parallel lines. Students apply this reasoning about similar triangles to solve problems, such as finding heights and distances. Students see the plausibility of the formulas for the circumference and area of a circle. For example, in the case of area, they may do so by reasoning about how lengths and areas scale in similar figures or by decomposing a circle or circular region and rearranging the pieces.

(4) Students build on their previous work with single data distributions to compare two data distributions and address questions about differences between populations. They begin informal work with random sampling to generate data sets and learn about the importance of representative samples for drawing inferences.

Analyzing proportional relationships

1. Form ratios of nonnegative rational numbers and compute corresponding unit rates. *For example, a person might walk ½ mile in each ¼ hour; the unit rate for this ratio is (1/2)/(1/4) miles per hour, equivalently 2 miles per hour. Include ratios of lengths, areas and other quantities, including when quantities being compared are measured in different units.*
2. Recognize situations in which two quantities covary and have a constant ratio. (The quantities are then said to be in a proportional relationship and the unit rate is called the constant of proportionality.) Decide whether two quantities that covary are in a proportional relationship, e.g., by testing for equivalent ratios or graphing on a coordinate plane.
3. Compute unit rates and solve proportional relationship problems in everyday contexts, such as shopping, cooking, carpentry, party planning, etc. Represent proportional relationships by equations that express how the quantities are related via the constant of proportionality or unit rate. *For example, total cost, t, is proportional to the number, n, purchased at a constant price, p; this relationship can be expressed as $t = pn$.*
4. Plot proportional relationships on a coordinate plane where each axis represents one of the two quantities involved, observe that the graph is a straight line through the origin, 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.
5. Compare tables, graphs, formulas, diagrams, and verbal descriptions that represent or partially represent proportional relationships; explain correspondences among the representations including how the unit rate is shown in each.

Percent

6. Understand that percentages are rates per 100. For example, 30% of a quantity means $^{30}/_{100}$ times the quantity. A percentage can be a complex fraction, as in $3.75\% = {}^{3.75}/_{100}$.
7. Find a percentage of a quantity; solve problems involving finding the whole given a part and the percentage.
8. Solve multistep percent problems. *Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error, expressing monthly rent as a percentage of take-home pay.*

The Number System 7-NS

The system of rational numbers

1. Understand that the rules for manipulating fractions extend to complex fractions.
2. Understand and perform addition and subtraction with rational numbers:
   a. Understand that on a number line, the sum $p + q$ is the number located a 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 (i.e., their sum is zero).
   b. Compute sums of signed numbers using the laws of arithmetic. *For example, $7 + (-3) = 4$ because $7 + (-3) = (4 + 3) + (-3) = 4 + [3 + (-3)] = 4 + [0] = 4$.*
   c. Understand that subtraction of rational numbers is defined by viewing a difference as the solution of an unknown-addend addition problem. Subtraction of a rational number gives the same answer as adding its additive inverse.
   d. Explain and justify rules for adding and subtracting rational numbers, using a number line and practical contexts. *For example, relate $r + (-s) = r - s$ to a bank transaction; explain why $p - (q + r) = p - q - r$.*
   e. Understand that the additive inverse of a sum is the sum of the additive inverses, that is $-(p + q) = -p + -q$. *For example, $-(6 + -2) = (-6) + 2$ because $[6 + (-2)] + [(-6) + 2] = [6 + (-6)] + [(-2) + 2] = [0] + [0] = 0$.*
3. Understand and perform multiplication and division with rational numbers:
   a. Understand that the extension of multiplication from fractions to rational numbers is determined by the requirement that multiplication and addition satisfy the laws of arithmetic, particularly the distributive law, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers.
   b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p/q is a rational number, then $-(p/q) = (-p)/q = p/(-q)$.
   c. Calculate products and quotients of rational numbers, and use multiplication and division to solve word problems. *Include signed quantities.*

The system of real numbers

4. Understand that there are numbers that are not rational numbers, called irrational numbers, e.g., π and $\sqrt{2}$. Together the rational and irrational numbers form the real number system. In school mathematics, the real numbers are assumed to satisfy the laws of arithmetic.

Expressions and Equations 7-EE

Expressions

1. Interpret numerical expressions at a level necessary to calculate their value using a calculator or spreadsheet. For expressions with variables, use and interpret conventions of algebraic notation, such as $y/2$ is $y \div 2$ or $1/2 \times y$; $(3 \pm y)/5$ is $(3 \pm y) \div 5$ or $1/5 \times (3 \pm y)$; a^2 is $a \times a$, a^3 is $a \times a \times a$, a^2b is $a \times a \times b$.
2. Generate equivalent expressions from a given expression using the laws of arithmetic and conventions of algebraic notation. Include:
   a. Adding and subtracting linear expressions, as in $(2x + 3) + x + (2 - x) = 2x + 5$.
   b. Factoring, as in $4x + 4y = 4(x + y)$ or $5x + 7x + 10y + 14y = 12x + 24y = 12(x + 2y)$.
   c. Simplifying, as in $-2(3x - 5) + 4x = 10 - 2x$ or $x/3 + (x - 2)/4 = 7x/12 - 1/2$.

Quantitative relationships and the algebraic approach to problems

3. Choose variables to represent quantities in a word problem, and construct simple equations to solve the problem by reasoning about the quantities.
   a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are nonnegative rational numbers and the solution is a nonnegative rational number. Fluently solve equations of these forms, e.g., by undoing the operations involved in producing the expression on the left.
   b. Solve the same word problem arithmetically and algebraically. *For example, "J. has 4 packages of balloons and 5 single balloons. In all, he has 21 balloons. How many balloons are in a package?" Solve this problem arithmetically (using a sequence of operations on the given numbers), and also solve it by using a variable to stand for the number of balloons in a package, constructing an equation such as $4b + 5 = 21$ to describe the situation then solving the equation.*
   c. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. *For example, $P + 0.05P = 1.05P$ means that "increase by 5%" is the same as "multiply by 1.05."*

Geometry 7-G

Congruence and similarity

1. Verify experimentally the fact that a rigid motion (a sequence of rotations, reflections, and translations) preserves distance and angle, e.g., by using physical models, transparencies, or dynamic geometry software:
   a. Lines are taken to lines, and line segments to line segments of the same length.
   b. Angles are taken to angles of the same measure.
   c. Parallel lines are taken to parallel lines.
2. Understand the meaning of congruence: a plane figure is congruent to another if the second can be obtained from the first by a rigid motion.
3. Verify experimentally that a dilation with scale factor k preserves lines and angle measure, but takes a line segment of length L to a line segment of length kL.
4. Understand the meaning of similarity: a plane figure is similar to another if the second can be obtained from the first by a similarity transformation (a rigid motion followed by a dilation).
5. Solve problems involving similar figures and scale drawings. *Include computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.*
6. Use informal arguments involving approximation by lines, squares, and cubes to see that 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.
7. Know the formulas relating the area, radius and circumference of a circle and solve problems requiring the use of these formulas; give an informal derivation of the relationship between the circumference and area of a circle.

Angles

8. Justify facts about the angle sum of triangles, exterior angles, and alternate interior angles created when parallel lines are cut by a transversal, e.g., by using 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 appear to form a line, and give an argument in terms of transversals why this is so.*
9. Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.

Situations involving randomness

1. Simulate situations involving randomness using random numbers generated by a calculator or a spreadsheet or taken from a table. *For example, if you guess at all ten true/false questions on a quiz, how likely are you to get at least seven answers correct?*
2. Use proportional reasoning to predict relative frequencies of outcomes for situations involving randomness, but for which a theoretical answer can be determined. For *example, when rolling a number cube 600 times, one would predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times. How far off might your prediction be? Use technology to generate multiple samples to approximate a distribution of sample proportions. Repeat the process for smaller sample sizes.*

Random sampling to draw inferences about a population

3. Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.
4. Understand the importance of measures of variation in sample quantities (like means or proportions) in reasoning about how well a sample quantity estimates or predicts the corresponding population quantity.
5. Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. *For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.*

Comparative inferences about two populations

6. Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. *For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean average deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.*
7. Use measures of center and measures of variability for numerical data from uniform random samples to draw informal comparative inferences about two populations. *For example, decide whether the words in a chapter of a seventh-grade book are generally longer than the words in a chapter of a sixth-grade book.*

Mathematics | Grade 8

In Grade 8, instructional time should focus on three critical areas: (1) solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) understanding and applying the Pythagorean Theorem.

(1) Students use linear equations, and systems of linear equations to represent, analyze, and solve a variety of problems. Students recognize proportions ($y/x = m$ or $y = mx$) as a special case of linear equations, $y = mx + b$, understanding that the constant of proportionality (m) is the slope and the graphs are lines through the origin. They understand that the slope (m) of a line is a constant rate of change, so that if the input or x-coordinate changes by an amount A, the output or y-coordinate changes by the amount mA. Students also formulate and solve linear equations in one variable and use these equations to solve problems. Students also use a linear equation to describe the association between two quantities in a data set (such as arm span vs. height for students in a classroom). At this grade, fitting the model, and assessing its fit to the data are done informally. Interpreting the model in the context of the data requires students to express a relationship between the two quantities in question.

Students strategically choose and efficiently implement procedures to solve linear equations in one variable, understanding that when they use the properties of equality and the concept of logical equivalence, they maintain the solutions of the original equation. Students solve systems of two linear equations in two variables and relate the systems to pairs of lines in the plane; these intersect, are parallel, or are the same line. Students use linear equations, systems of linear equations, linear functions, and their understanding of slope of a line to analyze situations and solve problems.

(2) Students grasp the concept of a function as a rule that assigns to each element of its domain exactly one element of its range. They use function notation and understand that functions describe situations where one quantity determines another. They can translate among verbal, tabular, graphical, and algebraic representations of functions (noting that tabular and graphical representations are usually only partial representations), and they describe how aspects of the function are reflected in the different representations.

(3) Students understand the statement of the Pythagorean Theorem and its converse, and can explain why the Pythagorean Theorem is valid, for example, by decomposing a square in two different ways. They apply the Pythagorean Theorem to find distances between points on the coordinate plane, to find lengths, and to analyze polygons.

The system of real numbers

1. Understand informally that every number on a number line has a decimal expansion, which can be found for rational numbers using long division. Rational numbers are those with repeating decimal expansions (this includes finite decimals which have an expansion that ends in a sequence of zeros).
2. Informally explain why $\sqrt{2}$ is irrational.
3. Use rational approximations (including those obtained from truncating decimal expansions) to compare the size of irrational numbers, locate them approximately on a number line, and estimate the value of expressions (e.g., π^2). *For example, show that the square root of 2 is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.*

Expressions and Equations 8-EE

Linear equations in one variable

1. Understand that a linear equation in one variable might have one solution, infinitely many solutions, or no solutions. Which of these possibilities is the case can be determined by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).
2. Solve linear equations with rational number coefficients, including equations that require expanding expressions using the distributive law and collecting like terms.

Linear equations in two variables

3. Understand that the slope of a non-vertical line in the coordinate plane has the same value for any two distinct points used to compute it. This can be seen using similar triangles.
4. Understand that two lines with well-defined slopes are parallel if and only if their slopes are equal.
5. Understand that the graph of a linear equation in two variables is a line, the set of pairs of numbers satisfying the equation. If the equation is in the form $y = mx + b$, the graph can be obtained by shifting the graph of $y = mx$ by b units (upwards if b is positive, downwards if b is negative). The slope of the line is m.
6. Understand that a proportional relationship between two variable quantities y and x can be represented by the equation $y = mx$. The constant m is the unit rate, and tells how much of y per unit of x.
7. Graph proportional relationships and relationships defined by a linear equation; find the slope and interpret the slope in context.
8. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.*

Systems of linear equations

9. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
10. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because the quantity $3x + 2y$ cannot simultaneously be 5 and 6.*
11. Solve and explain word problems leading to two linear equations in two variables.
12. Solve problems involving lines and their equations. *For example, decide whether a point with given coordinates lies on the line with a given equation; construct an equation for a line given two points on the line or one point and the slope; given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*

Functions 8-F

Function concepts

1. Understand that a function from one set (called the domain) to another set (called the range) is a rule that assigns to each element of the domain (an input) exactly one element of the range (the corresponding output). The graph of a function is the set of ordered pairs consisting of an input and the corresponding output. *Function notation is not required in Grade 8.*
2. Evaluate expressions that define functions, and solve equations to find the input(s) that correspond to a given output.
3. Compare properties of two functions represented in different ways (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*

4. Understand that a function is linear if it can be expressed in the form $y = mx + b$ or if its graph is a straight line. *For example, the function $y = x^2$ is not a linear function because its graph contains the points (1,1), (–1,1) and (0,0), which are not on a straight line.*

Functional relationships between quantities

5. Understand that functions can describe situations where one quantity determines another.
6. 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. 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.
7. Describe qualitatively the functional relationship between two quantities by reading a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

Geometry 8-G

Congruence and similarity

1. Use coordinate grids to transform figures and to predict the effect of dilations, translations, rotations and reflections.
2. Explain using rigid motions the meaning of congruence for triangles as the equality of all pair of sides and all pairs of angles.
3. Give an informal explanation using rigid motions of the SAS and ASA criteria for triangle congruence, and use them to prove simple theorems.
4. Explain using similarity transformations the meaning of similarity for triangles as the equality of all pairs of angles and the proportionality of all pairs of sides.
5. Give an informal explanation using similarity transformations of the AA and SAS criteria for triangle similarity, and use them to prove simple theorems.

The Pythagorean Theorem

6. The side lengths of a right triangle are related by the Pythagorean Theorem. Conversely, if the side lengths of a triangle satisfy the Pythagorean Theorem, it is a right triangle.
7. Explain a proof of the Pythagorean Theorem and its converse.
8. Use the Pythagorean Theorem to determine unknown side lengths in right triangles and to solve problems in two and three dimensions.
9. Use the Pythagorean Theorem to find the distance between two points in a coordinate system.

Plane and solid geometry

10. 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, ambiguously defined or nonexistent.
11. Understand that slicing a three-dimensional figure with a plane produces a two-dimensional figure. Describe plane sections of right rectangular prisms and right rectangular pyramids.
12. Use hands-on activities to demonstrate and describe properties of: parallel lines in space, the line perpendicular to a given line through a given point, lines perpendicular to a given plane, lines parallel to a given plane, the plane or planes passing through three given points, and the plane perpendicular to a given line at a given point.

Statistics and Probability 8-SP

Patterns of association in bivariate data

1. Understand that scatter plots for bivariate measurement data may reveal patterns of association between two quantities.
2. Construct and interpret scatter plots for bivariate measurement data. Describe patterns such as clustering, outliers, positive or negative association, linear association, nonlinear association.
3. Understand that a straight line is a widely used model for exploring relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.
4. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. *For example, in a linear model for a biology experiment, an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.*
5. Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables

collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. *For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?*

Where is the College-and-Career-Readiness line drawn?

The high school standards specify the mathematics that all students should learn in order to be college and career ready. The high school standards also describe additional mathematics that students should learn to pursue careers and majors in science, technology, engineering and mathematics (STEM) fields. Other forms of advanced work are possible (for example in discrete mathematics or advanced statistics) and can be eventually added to the standards.

Standards beyond the college and career readiness level that are necessary for STEM careers are prefixed with a symbol STEM, as in this example:

> STEM Graph complex numbers in polar form and interpret arithmetic operations on complex numbers geometrically.

Any standard without this tag is understood to be in the common core mathematics curriculum for all students.

How are the high school standards organized?

The high school standards are listed in conceptual categories, as shown in the Table below. **Appendix A (online) contains drafts of model course descriptions based on these standards**. Conceptual categories portray a coherent view of core high school mathematics; a student's work with Functions, for example, crosses a number of traditional course boundaries, potentially up through and including Calculus.

Conceptual Organization of the High School Standards

CCRS Draft September 17th	High School Standards Draft March 10
Number Quantity	Number and Quantity
Expressions Equations Coordinates	Algebra
Functions	Functions
Geometry	Geometry
Statistics Probability	Statistics and Probability
Modeling	Modeling**

* Standards formerly appearing under Coordinates now appear under other headings.

** Making mathematical models is now a Standard for Mathematical Practice. Standards formerly appearing under Modeling are now distributed under other major headings. High school standards with relevance to modeling are flagged with a (★) symbol. A narrative description of modeling remains in the high school standards, but there are no specific standard statements in that narrative description.

Mathematics | High School—Number and Quantity

Numbers and Number Systems. During the years from kindergarten to eighth grade, students must repeatedly extend their conception of number. At first, "number" means "counting number": 1, 2, 3, … Soon after that, 0 is used to represent "none" and the whole numbers are formed by the counting numbers together with zero. The next extension is fractions. At first, fractions are barely numbers and tied strongly to pictorial representations. Yet by the time students understand division of fractions, they have a strong concept of fractions as numbers and have connected them, via their decimal representations, with the base-ten system used to represent the whole numbers. During middle school, fractions are augmented by negative fractions to form the rational numbers. In Grade 7, students extend this system once more, augmenting the rational numbers with the irrational numbers to form the real numbers. In high school, students will be exposed to yet another extension of number, when the real numbers are augmented by the imaginary numbers to form the complex numbers.

Students sometimes have difficulty accepting new kinds of numbers when these differ in appearance and properties from those of a familiar system. For example, students might decide that complex numbers are not numbers because they are not written with numerical digits, or because they do not describe positive or negative quantities. Indeed, this ascent through number systems makes it fair to ask: what does the word *number* mean that it can mean all of these things? One possible answer is that a number is something that can be used to do mathematics: calculate, solve equations, or represent measurements. Historically, number systems have been extended when there is an intellectual or practical benefit in using the new numbers to solve previously insoluble problems.[1]

Although the referent of "number" changes, the four operations stay the same in important ways. The commutative, associative, and distributive laws extend the properties of operations to the integers, rational numbers, real numbers, and complex numbers. The inverse relationships between addition and subtraction, and multiplication and division are maintained in these larger systems.

Calculators are useful in this strand to generate data for numerical experiments, to help understand the workings of matrix, vector, and complex number algebra, and to experiment with non-integer exponents.

Quantities. In their work in measurement up through Grade 8, students primarily measure commonly used attributes such as length, area, volume, and so forth. In high school, students encounter novel situations in which they themselves must conceive the attributes of interest. Such a conceptual process might be called quantification. Quantification is important for science, as when surface area suddenly "stands out" as an important variable in evaporation. Quantification is also important for companies, who must conceptualize relevant attributes and create or choose suitable metrics by which to measure them.

Content Outline

The Real Number System

Quantities

The Complex Number System

Vector Quantities and Matrices

[1] See Harel, G., "A Standpoint of Research on Middle/Higher Number and Quantity," a research review provided for the Common Core State Standards Initiative.

The Real Number System N-RN

1. Understand that the laws of exponents for positive integer exponents follow from an understanding of exponents as indicating repeated multiplication, and from the associative law for multiplication.
2. Understand that the definition of the meaning of zero, positive rational, and negative exponents follows from extending the laws of exponents to those values, allowing for a notation for radicals in terms of rational exponents. *For example, since* $(5^{1/3})^3 = 5^{(1/3)\cdot 3} = 5^1 = 5$, $5^{1/3}$ *is a cube root of* 5.
3. Understand that sums and products of rational numbers are rational.
4. Understand that the sum of a rational number and an irrational number is irrational, and that the product of a nonzero rational number and an irrational number is irrational.
5. Rewrite expressions using the laws of exponents. *For example,* $(5^{1/2})^3 = 5^{3/2}$ *and* $1/5 = 5^{-1}$.

Quantities★ N-Q

1. Understand that the magnitude of a quantity is independent of the unit used to measure it. *For example, the density of a liquid does not change when it is measured in another unit. Rather, its measure changes. The chosen unit "measures" the quantity by giving it a numerical value ("the density of lead is 11.3 times that of water").*
2. Use units as a way to understand problems and to guide the solution of multi-step problems, involving, e.g., acceleration, currency conversions, derived quantities such as person-hours and heating degree days, social science rates such as per-capita income, and rates in everyday life such as points scored per game.
3. Define metrics for the purpose of descriptive modeling. *For example, find a good measure of overall highway safety; propose and debate measures such as fatalities per year, fatalities per year per driver, or fatalities per vehicle-mile traveled.*
4. Add, subtract, multiply, and divide numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.
5. Use and interpret quantities and units correctly in algebraic formulas.
6. Use and interpret quantities and units correctly in graphs and data displays (function graphs, data tables, scatter plots, and other visual displays of quantitative information). Generate graphs and data displays using technology.

The Complex Number System N-CN

1. Understand that the relation $i^2 = -1$ and the commutative, associative, and distributive laws can be used to calculate with complex numbers.
2. STEM Understand that polynomials can be factored over the complex numbers, e.g., as in $x^2 + 4 = (x + 2i)(x - 2i)$.
3. STEM Understand that complex numbers can be visualized on the complex plane. Real numbers correspond to points on the horizontal (real) axis, and imaginary numbers to points on the vertical axis.
4. STEM Understand that 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.
5. STEM Understand that 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.
6. Add, subtract, and multiply complex numbers.
7. STEM Find the conjugate of a complex number; use conjugates to find absolute values and quotients of complex numbers.
8. STEM Solve quadratic equations with real coefficients that have complex solutions using a variety of methods.
9. STEM Graph complex numbers in rectangular form.
10. STEM Graph complex numbers in polar form and interpret arithmetic operations on complex numbers geometrically.
11. STEM Explain why the rectangular and polar forms of a complex number represent the same number.

★ Standard with close connection to modeling.

1. STEM Understand that vector quantities have both magnitude and direction. Vector quantities are typically represented by directed line segments. The magnitude of a vector $\mathbf{v}$ is commonly denoted $|\mathbf{v}|$ or $||\mathbf{v}||$.
2. STEM Understand that vectors are determined by the coordinates of their initial and terminal points, or by their components.
3. STEM Understand that vectors can be added end-to-end, component-wise, or by the parallelogram rule. The magnitude of a sum of two vectors is typically not the sum of the magnitudes.
4. STEM Understand that a vector $\mathbf{v}$ can be multiplied by a real number c (called a scalar in this context) to form a new vector $c\mathbf{v}$ with magnitude $|c|v$. When $|c|v \neq 0$, the direction of $c\mathbf{v}$ is either along $\mathbf{v}$ (for $c > 0$) or against $\mathbf{v}$ (for $c < 0$). Scalar multiplication can be shown graphically by scaling vectors and possibly reflecting them in the origin; scalar multiplication can also be performed component-wise, e.g., as $c(v_x, v_y) = (cv_x, cv_y)$.
5. STEM Understand that vector subtraction $\mathbf{v} - \mathbf{w}$ is defined as $\mathbf{v} + (-\mathbf{w})$. Two vectors can be subtracted graphically by connecting the tips in the appropriate order.
6. STEM Understand that matrices can be multiplied by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled. Matrices of the same dimensions can be added or subtracted. Matrices with compatible dimensions can be multiplied. Unlike multiplication of numbers, matrix multiplication is not a commutative operation, but still satisfies the associative and distributive laws.
7. STEM Understand that a vector, when regarded as a matrix with one column, can be multiplied by a matrix of suitable dimensions to produce another vector. A 2×2 matrix can be viewed as a transformation of the plane.
8. STEM Understand that a system of linear equations can be represented as a single matrix equation in a vector variable.
9. STEM Understand that 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 square matrix is nonzero if and only if the matrix has a multiplicative inverse.
10. STEM Perform basic vector operations (addition, subtraction, scalar multiplication) both graphically and algebraically.
11. STEM Given two vectors in magnitude and direction form, determine the magnitude and direction of their sum.
12. STEM Solve problems involving velocity and quantities that can be represented by vectors.★
13. STEM Add, subtract, and multiply matrices of appropriate dimensions.
14. STEM Use matrices to store and manipulate data, e.g., to represent payoffs or incidence relationships in a network.
15. STEM Represent systems of linear equations as matrix equations.
16. STEM Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension greater than 3×3).

★ Standard with close connection to modeling.

Expressions. An expression is a description of a computation on numbers and symbols that represent numbers, using arithmetic operations and the operation of raising a number to rational exponents. Conventions about the use of parentheses and the order of operations assure that each expression is unambiguous. Creating an expression that describes a computation involving a general quantity requires the ability to express the computation in general terms, abstracting from specific instances.

Reading an expression with comprehension involves analysis of its underlying structure. This may suggest a different but equivalent way of writing the expression that exhibits some different aspect of its meaning. For example, $p + 0.05p$ can be interpreted as the addition of a 5% tax to a price p. Rewriting $p + 0.05p$ as $1.05p$ shows that adding a tax is the same as multiplying the price by a constant factor.

Algebraic manipulations are governed by deductions from the commutative, associative, and distributive laws and the inverse relationships between the four operations, and the conventions of algebraic notation. These extend what students have learned about arithmetic expressions in K–8 to expressions that involve exponents, radicals, and representations of real numbers, and, for STEM-intending students, complex numbers.

At times, an expression is the result of applying operations to simpler expressions. Viewing such an expression by singling out these simpler expressions can sometimes clarify its underlying structure.

A spreadsheet or a CAS environment can be used to experiment with algebraic expressions, perform complex algebraic manipulations,and understand how algebraic manipulations behave.

Equations and inequalities. An equation is a statement that two expressions are equal. Solutions to an equation are numbers that make the equation true when assigned to the variables in it. If the equation is true for all numbers, then it is called an identity; identities are often discovered by using the laws of arithmetic or the laws of exponents to transform one expression into another.

The solutions of an equation in one variable form a set of numbers; the solutions of an equation in two variables form a set of ordered pairs of numbers, which can be graphed in the coordinate plane. Two or more equations and/or inequalities form a system. A solution for such a system must satisfy every equation and inequality in the system.

An equation can often be solved by successively transforming it into one or more simpler equations. The process is governed by deductions based on the properties of equality. For example, one can add the same constant to both sides without changing the solutions, but squaring both sides might lead to extraneous solutions. Strategic competence in solving includes looking ahead for productive manipulations and anticipating the nature and number of solutions.

Some equations have no solutions in a given number system, stimulating the extension of that system. For example, the solution of $x + 1 = 0$ is an integer, not a whole number; the solution of $2x + 1 = 0$ is a rational number, not an integer; the solutions of $x^2 - 2 = 0$ are real numbers, not rational numbers; and the solutions of $x^2 + 2 = 0$ are complex numbers, not real numbers.

The same solution techniques used to solve equations can be used to rearrange formulas. For example, the formula for the area of a trapezoid, $A = ((b_1+b_2)/2)h$, can be solved for h using the same deductive process.

Inequalities can be solved by reasoning about the properties of inequality. Many, but not all, of the properties of equality continue to hold for inequalities and can be useful in solving them.

Connections to Functions and Modeling. Expressions can define functions, and equivalent expressions define the same function. Equations in two variables may also define functions. Asking when two functions have the same value leads to an equation; graphing the two functions allows for the approximate solution of the equation. Converting a verbal description to an equation, inequality, or system of these is an essential skill in modeling.

Content Outline

Seeing Structure in Expressions

Arithmetic with Polynomials and Rational Expressions

Creating Equations that Describe Numbers or Relationships

Reasoning with Equations and Inequalities

Seeing Structure in Expressions A-SSE

1. Understand that different forms of an expression may reveal different properties of the quantity in question; a purpose in transforming expressions is to find those properties. *Examples: factoring a quadratic expression reveals the zeros of the function it defines, and putting the expression in vertex form reveals its maximum or minimum value; the expression* 1.15^t *can be rewritten as* $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ *to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.*
2. Understand that complicated expressions can be interpreted by viewing one or more of their parts as single entities.
3. Interpret an expression that represents a quantity in terms of the context. *Include interpreting parts of an expression, such as terms, factors and coefficients.* ★
4. Factor, expand, and complete the square in quadratic expressions.
5. See expressions in different ways that suggest ways of transforming 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* $(x^2 - y^2)(x^2 + y^2)$.
6. Rewrite expressions using the laws of exponents. *For example,* $(x^{1/2})^3 = x^{3/2}$ *and* $1/x = x^{-1}$.
7. Use the laws of exponents to interpret expressions for exponential functions, recognizing positive rational exponents as indicating roots of the base and negative exponents as indicating the reciprocal of a power. *For example, identify the per unit percentage change in functions such as* $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, $y = (1.2)^{t/10}$, *and conclude whether it represents exponential growth or decay. Recognize that any nonzero number raised to the zero power is 1, for example,* $12(1.05)^0 = 12$. *Avoid common errors such as confusing* $6(1.05)^t$ *with* $(6 \cdot 1.05)^t$ *and* $5(0.03)^t$ *with* $5(1.03)^t$.
8. STEM Prove the formula for the sum of a geometric series, and use the formula to solve problems.

Arithmetic with Polynomials and Rational Expressions A-APR

1. Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication.
2. Understand that polynomial identities become true statements no matter which real numbers are substituted. *For example, the polynomial identity* $(x^2 + y^2)^2 = (x^2 - y^2)^2 + (2xy)^2$ *can be used to generate Pythagorean triples.*
3. Understand the Remainder Theorem: For a polynomial $p(x)$ and a number a, the remainder on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$.
4. STEM Understand that the Binomial Theorem gives the expansion of $(x + a)^n$ in powers of x for a positive integer n and a real number a, with coefficients determined for example by Pascal's Triangle. The Binomial Theorem can be proved by mathematical induction or by a combinatorial argument.
5. STEM Understand that rational expressions are quotients of polynomials. They form a system analogous to the rational numbers, closed under division by a nonzero rational function.
6. Add, subtract and multiply polynomials.
7. Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the polynomial.
8. Transform simple rational expressions using the commutative, associative, and distributive laws, and the inverse relationship between multiplication and division.
9. Divide a polynomial $p(x)$ by a divisor of the form $x - a$ using long division.
10. STEM Identify zeros and asymptotes of rational functions, when suitable factorizations are available, and use the zeros and asymptotes to construct a rough graph of the function.
11. STEM Divide polynomials, using long division for linear divisors and long division or a computer algebra system for higher degree divisors.

Creating Equations That Describe Numbers or Relationships A-CED*

1. Understand that equations in one variable are often created to describe properties of a specific but unknown number.
2. Understand that equations in two or more variables that represent a relationship between quantities can be built by experimenting with specific numbers in the relationship.
3. Write equations and inequalities that specify an unknown quantity or to express a relationship between two or more quantities. Use the equations and inequalities to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*

★ Standard with close connection to modeling.

4. Rearrange formulas to highlight a quantity of interest. *For example, transform Ohm's law $V = IR$ to highlight resistance R; in motion with constant acceleration, transform $v_{f,x}^2 - v_{i,x}^2 = 2a_x(x_f - x_i)$ to highlight the change in position along the x-axis, $x_f - x_i$.*

Reasoning with Equations and Inequalities A-REI

1. Understand that to solve an equation algebraically, one makes logical deductions from the equality asserted by the equation, often in steps that replace it with a simpler equation whose solutions include the solutions of the original one.
2. Understand that 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.
3. Understand that given a system of two linear equations in two variables, 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.
4. Understand that the graph of an equation in two variables is the set of its solutions plotted in the coordinate plane, often forming a curve or a line.
5. Understand that solutions to two equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
6. Understand that the solutions to a linear inequality in two variables can be graphed as a half-plane (excluding the boundary in the case of a strict inequality).
7. Understand that solutions to several linear inequalities in two variables correspond to points in the intersection of the regions in the plane defined by the solutions to the inequalities.
8. Understand that equations and inequalities can be viewed as constraints in a problem situation, e.g., inequalities describing nutritional and cost constraints on combinations of different foods.★
9. STEM Understand that the relationship between an invertible function f and its inverse function can be used to solve equations of the form $f(x) = c$.
10. Solve simple rational and radical equations in one variable, noting and explaining extraneous solutions.
11. Solve linear equations in one variable, including equations with coefficients represented by letters.
12. Solve quadratic equations in one variable. *Include methods such as inspection (e.g. for $x^2 = 49$), square roots, completing the square, the quadratic formula and factoring. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.*
13. Solve equations $f(x) = g(x)$ approximately by finding the intersections of the graphs of $f(x)$ and $g(x)$, e.g. using technology to graph the functions. *Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, exponential, and logarithmic functions.*
14. Solve linear inequalities in one variable and graph the solution set on a number line.
15. Solve systems of linear equations algebraically and graphically, focusing on pairs of linear equations in two variables.
16. Solve algebraically a simple system consisting of one linear equation and one quadratic equation in two variables; for example, find points of intersection between the line $y = -3x$ and the circle $x^2 + y^2 = 3$.
17. Graph the solution set of a system of linear inequalities in two variables.
18. In modeling situations, represent constraints by systems of equations and/or inequalities, and interpret solutions of these systems as viable or non-viable options in the modeling context.★
19. In the context of exponential models, solve equations of the form $a\,b^{ct} = d$ where a, c, and d are specific numbers and the base b is 2, 10, or e.★
20. STEM Relate the properties of logarithms to the laws of exponents and solve equations involving exponential functions.
21. STEM Use inverse functions to solve equations of the form $a\sin(bx + c) = d$, $a\cos(bx + c) = d$, and $a\tan(bx + c) = d$.

★ Standard with close connection to modeling.

Mathematics | High School—Functions

Functions describe situations where one quantity determines another. For example, the return on $10,000 invested at an annualized percentage rate of 4.25% is a function of the length of time the money is invested. Because nature and society are full of dependencies between quantities, functions are important tools in the construction of mathematical models.

In school mathematics, functions usually have numerical inputs and outputs and are often defined by an algebraic expression. For example, the time in hours it takes for a car to drive 100 miles is a function of the car's speed in miles per hour, v; the rule $T(v) = 100/v$ expresses this relationship algebraically and defines a function whose name is T.

The set of inputs to a function is called its domain. We often infer the domain to be all inputs for which the expression defining a function has a value, or for which the function makes sense in a given context.

A function can be described in various ways, such as by a graph (e.g., the trace of a seismograph); by a verbal rule, as in, "I'll give you a state, you give me the capital city"; or by an algebraic expression like $f(x) = a + bx$. The graph of a function is often a useful way of visualizing the relationship the function models, and manipulating a mathematical expression for a function can throw light on the function's properties. Graphing technology and spreadsheets are also useful tools in the study of functions.

Functions presented as expressions can model many important phenomena. Two important families of functions characterized by laws of growth are linear functions, which grow at a constant rate, and exponential functions, which grow at a constant percent rate. Linear functions with a constant term of zero describe proportional relationships.

A graphing utility or a CAS can be used to experiment with properties of the functions and their graphs and to build computational models of functions, including recursively defined functions.

Connections to Expressions, Equations, Modeling and Coordinates. Determining an output value for a particular input involves evaluating an expression; finding inputs that yield a given output involves solving an equation. Questions about when two functions have the same value lead to equations, whose solutions can be visualized from the intersection of their graphs. Because functions describe relationships between quantities, they are frequently used in modeling. Sometimes functions are defined by a recursive process, which can be displayed effectively using a spreadsheet or other technology.

Content Outline

Interpreting Functions

Building Functions

Linear, Quadratic, and Exponential Models

Trigonometric Functions

Limits and Continuity†

Differential Calculus†

Applications of Derivatives†

Integral Calculus†

Applications of Integration†

Infinite Series†

† Specific standards for calculus domains are not listed.

Interpreting Functions A-IF

1. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x.
2. Understand that functions of a single variable have key characteristics, including: zeros; extreme values; average rates of change (over intervals); intervals of increasing, decreasing and/or constant behavior; and end behavior.
3. Understand that a function defined by an expression may be written in different but equivalent forms, which can reveal different properties of the function.
4. Use function notation and evaluate functions for inputs in their domains.
5. 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). ★
6. Sketch a graph that exhibits the qualitative features of a function that models a relationship between two quantities. ★
7. Compare properties of two functions represented in different ways (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, draw conclusions about the graph of a quadratic function from its algebraic expression.*
8. Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.* ★
9. Describe the qualitative behavior of functions presented in graphs and tables. *Identify: intercepts; intervals where the function is increasing, decreasing, positive or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.* ★
10. Use technology to exhibit the effects of parameter changes on the graphs of linear, power, quadratic, square root, cube root, and polynomial functions, and simple rational, exponential, logarithmic, sine, cosine, absolute value, and step functions. ★
11. Transform quadratic polynomials algebraically to reveal different features of the function they define, such as zeros, extreme values, and symmetry of the graph.

Building Functions A-BF

1. Understand that functions can be described by specifying an explicit expression, a recursive process or steps for calculation.
2. Understand that sequences are functions whose domain is a subset of the nonnegative integers.
3. STEM Understand that 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 $f(g(x))$.
4. STEM Understand that the inverse of an invertible function "undoes" what the function does; that is, composing the function with its inverse in either order returns the original input. One can sometimes produce an invertible function from a non-invertible function by restricting the domain (e.g., squaring is not an invertible function on the real numbers, but squaring is invertible on the nonnegative real numbers).
5. Write a function that describes a relationship between two quantities, for example by varying parameters in and combining standard function types (such as linear, quadratic or exponential functions). Use technology to experiment with parameters and to illustrate an explanation of the behavior of the function when parameters vary. ★
6. Solve problems involving linear, quadratic, and exponential functions. ★
7. Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology.
8. Generate an arithmetic or geometric sequence given a recursive rule for the sequence. ★
9. As a way to describe routine modeling situations, write arithmetic and geometric sequences both recursively and in closed form, and translate between the two forms. ★
10. STEM Evaluate composite functions and compose functions symbolically.
11. STEM Read values of an inverse function from a graph or a table, given that the function has an inverse.
12. STEM For linear or simple exponential functions, find a formula for an inverse function by solving an equation.
13. STEM Verify symbolically by composition that one function is the inverse of another.

Linear, Quadratic, and Exponential Models A-LQE

1. Understand that a linear function, defined by $f(x) = mx + b$ for some constants m and b, models a situation in which a quantity changes at a constant rate, m, relative to another. ★
2. Understand that quadratic functions have maximum or minimum values and can be used to model problems with optimum solutions. ★
3. Understand that an exponential function, defined by $f(x) = ab^x$ or by $f(x) = a(1 + r)^x$ for some constants a, $b > 0$ and $r > -1$, models a situation where a quantity grows or decays by a constant factor or a constant percentage change over each unit interval. ★
4. Understand that linear functions grow by equal differences over equal intervals; exponential functions grow by equal factors over equal intervals. ★
5. Understand that in an arithmetic sequence, differences between consecutive terms form a constant sequence, and second differences are zero. Conversely, if the second differences are zero, the sequence is arithmetic. Arithmetic sequences can be seen as linear functions. ★
6. Understand that in a sequence that increases quadratically (e.g., $a_n = 3n^2 + 2n + 1$), differences between consecutive terms form an arithmetic sequence, and second differences form a constant sequence. Conversely, if the second differences form a constant sequence with nonzero value, the sequence increases quadratically. ★
7. Understand that in a geometric sequence, ratios of consecutive terms are all the same. ★
8. Understand that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function. ★
9. 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. ★
10. Construct a function to describe a linear relationship between two quantities. Determine the rate of change and constant term of a linear function from a graph, a description of a relationship, or from two (x, y) values (include reading these from a table). ★
11. Use quadratic functions to model problems, e.g., in situations with optimum solutions. ★
12. Construct an exponential function in the form $f(x) = a(1 + r)^x$ or $f(x) = ab^x$ to describe a relationship in which one quantity grows with respect to another at a constant percent growth rate or a with a constant growth factor. ★
13. Interpret the rate of change and constant term of a linear function or sequence in terms of the situation it models, and in terms of its graph or a table of values. ★
14. Calculate and interpret the growth factor for an exponential function (presented symbolically or as a table) given a fixed interval. Estimate the growth factor from a graph. ★
15. Recognize a quantitative relationship as linear, exponential, or neither from description of a situation. ★
16. Compare quantities increasing exponentially to quantities increasing linearly or as a polynomial function. ★

Trigonometric Functions F-TF

1. STEM Understand that the unit circle in the coordinate plane enables one to define the sine, cosine, and tangent functions for real numbers.
2. STEM Understand that trigonometric functions are periodic by definition, and sums and products of functions with the same period are periodic.
3. STEM Understand that restricting trigonometric functions to a domain on which they are always increasing or always decreasing allows for the construction of an inverse function.
4. STEM Revisit trigonometric functions and their graphs in terms of radians.
5. STEM Use the unit circle to determine geometrically the values of sine, cosine, tangent for integer multiples of $\pi/4$ and $\pi/6$.
6. STEM Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.
7. STEM Solve simple trigonometric equations formally using inverse trigonometric functions and evaluate the solutions numerically using technology. *Solving trigonometric equations by means of the quadratic formula is optional.*

Limits and Continuity† F-LC

★ Standard with close connection to modeling.

† Specific standards for calculus domains are not listed.

Differential Calculus† F-DC

Applications of Derivatives† F-AD

Integral Calculus† F-IC

Applications of Integration† F-AI

Infinite Series† F-IS

† Specific standards for calculus domains are not listed.

Modeling links classroom mathematics and statistics to everyday life, work, and decision-making. Modeling is the process of choosing and using appropriate mathematics and statistics to analyze empirical situations, to understand them better, and to improve decisions. Quantities and their relationships in physical, economic, public policy, social and everyday situations can be modeled using mathematical and statistical methods. When making mathematical models, technology is valuable for varying assumptions, exploring consequences, and comparing predictions with data.

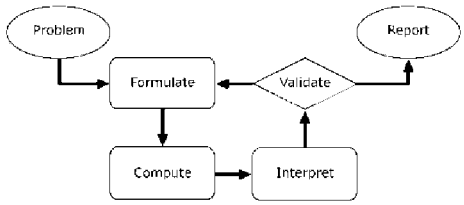
A model can be very simple, such as writing total cost as a product of unit price and number bought, or using a geometric shape to describe a physical object like a coin. Even such simple models involve making choices. It is up to us whether to model a coin as a three-dimensional cylinder, or whether a two-dimensional disk works well enough for our purposes. Other situations—modeling a delivery route, a production schedule, or a comparison of loan amortizations—need more elaborate models that use other tools from the mathematical sciences. Real-world situations are not organized and labeled for analysis; formulating tractable models, representing such models, and analyzing them is appropriately a creative process. Like every such process, this depends on acquired expertise as well as creativity.

Some examples of such situations might include:

- Estimating how much water and food is needed for emergency relief in a devastated city of 3 million people, and how it might be distributed.
- Planning a table tennis tournament for 7 players at a club with 4 tables, where each player plays against each other player.
- Designing the layout of the stalls in a school fair so as to raise as much money as possible.
- Analyzing stopping distance for a car.
- Modeling savings account balance, bacterial colony growth, or investment growth.
- Critical path analysis, e.g., applied to turnaround of an aircraft at an airport.
- Risk situations, like extreme sports, pandemics and terrorism.
- Relating population statistics to individual predictions.

In situations like these, the models devised depend 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 that we can create and analyze is also constrained by the limitations of our mathematical, statistical, and technical skills, and our ability to recognize significant variables and relationships among them. Diagrams of various kinds, spreadsheets and other technology, 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 or statistical structure can model seemingly different situations. Models can also shed light on the mathematical structures themselves, for example as when a model of bacterial growth makes more vivid the explosive growth of the exponential function.



The basic modeling cycle is summarized in the diagram. It involves (1) identifying variables in the situation and selecting those than represent essential features, (2) formulating a model by creating and selecting geometric, graphical, tabular, algebraic, or statistical representations that describe relationships between the variables, (3) analyzing and performing operations on these relationships to draw conclusions, (4) interpreting the results of the mathematics in terms of the original situation, (5) validating the conclusions by comparing them with the situation, and then, either improving the model or, if it is acceptable, (6) reporting on the conclusions and the reasoning behind them. Choices, assumptions and approximations are present throughout this cycle.

In descriptive modeling, a model simply describes the phenomena or summarizes them in a compact form. Graphs of observations are a familiar descriptive model—for example, graphs of global temperature and atmospheric CO_2 over time.

Analytic modeling seeks to explain data on the basis of deeper theoretical ideas, albeit with parameters that are empirically based; for example, exponential growth of bacterial colonies (until cut-off mechanisms such as pollution or starvation intervene) follows from a constant reproduction rate. Functions are an important tool for analyzing such

problems.

Graphing utilities, spreadsheets, CAS environments, and dynamic geometry software are powerful tools that can be used to model purely mathematical phenomena (e.g., the behavior of polynomials) as well as physical phenomena.

Modeling Standards

Modeling is best interpreted not as a collection of isolated topics but rather in relation to other standards. Making mathematical models is a Standard for Mathematical Practice, and specific modeling standards appear throughout the high school standards indicated by a star symbol (★).

Mathematics | High School—Statistics and Probability*

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. Statistics provides tools for describing variability in data and for making informed decisions that take it into account.

Data are gathered, displayed, summarized, examined, and interpreted to discover patterns and deviations from patterns. Quantitative data can be described in terms of key characteristics: measures of shape, center, and spread. The shape of a data distribution might be described as symmetric, skewed, flat, or bell shaped, and it might be summarized by a statistic measuring center (such as mean or median) and a statistic measuring spread (such as standard deviation or interquartile range). Different distributions can be compared numerically using these statistics or compared visually using plots. Knowledge of center and spread are not enough to describe a distribution. Which statistics to compare, which plots to use, and what the results of a comparison might mean, depend on the question to be investigated and the real-life actions to be taken.

Randomization has two important uses in drawing statistical conclusions. First, collecting data from a random sample of a population makes it possible to draw valid conclusions about the whole population, taking variability into account. Second, randomly assigning individuals to different treatments allows a fair comparison of the effectiveness of those treatments. A statistically significant outcome is one that is unlikely to be due to chance alone, and this can be evaluated only under the condition of randomness. The conditions under which data are collected are important in drawing conclusions from the data; in critically reviewing uses of statistics in public media and other reports it is important to consider the study design, how the data were gathered, and the analyses employed as well as the data summaries and the conclusions drawn.

Random processes can be described mathematically by using a probability model. One begins to make a probability model by listing or describing the possible outcomes (the sample space) and assigning probabilities. In situations such as flipping a coin, rolling a number cube, or drawing a card, it might be reasonable to assume various outcomes are equally likely. In a probability model, sample points represent outcomes and combine to make up events; probabilities of events can be computed by applying the additive and multiplicative laws of probability. Interpreting these probabilities relies on an understanding of independence and conditional probability, which can be approached through the analysis of two-way tables.

Technology plays an important role in statistics and probability by making it possible to generate plots, functional models, and correlation coefficients, and to simulate many possible outcomes in a short amount of time.

Connections to Functions and Modeling. Functional models may be used to approximate data; if the data are approximately linear, the relationship may be modeled with a regression line and the strength and direction of such a relationship may be expressed through a correlation coefficient.

Content Outline

Summarizing Categorical and Measurement Data

Probability Models

Independently Combined Probability Models

Making Inferences and Justifying Conclusions Drawn from Data

Conditional Probability and the Laws of Probability

Experimenting and Simulating to Model Probabilities

Using Probability to Make Decisions

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* Most or all of the standards in Statistics and Probability have a close connection to modeling.

1. Understand that statistical methods take variability into account to support making informed decisions based on data collected to answer specific questions.
2. Understand that visual displays and summary statistics condense the information in data sets into usable knowledge.
3. Understand that patterns of association or relationships between variables may emerge through careful analysis of multi-variable data.
4. Summarize comparative or bivariate categorical data in two-way frequency tables. Interpret joint, marginal and conditional relative frequencies in the context of the data, recognizing possible associations and trends in bivariate categorical data.
5. 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 statistics appropriate to the shape of the data distribution 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 (outliers).
6. Represent bivariate quantitative data on a scatter plot and describe how the variables are related.
7. Fit a linear function for scatter plots that suggest a linear association. Informally assess the fit of the model function by plotting and analyzing residuals.
8. Use a model function fitted to the data to solve problems in the context of the data, interpreting the slope (rate of change) and the intercept (constant term).
9. Compute (using technology) and interpret the correlation coefficient for a linear relationship between variables.
10. Distinguish between correlation and causation.

Probability Models S-PM

1. Understand that in a probability model, individual outcomes have probabilities that sum to 1. When outcomes are categorized, the probability of a given type of outcome is the sum of the probabilities of all the individual outcomes of that type.
2. Understand that uniform probability models are useful models for processes such as (i) the selection of a person from a population; (ii) the selection of a number in a lottery; (iii) any physical situation in which symmetry suggests that different individual outcomes are equally likely.
3. Understand that two different empirical probability models for the same process will rarely assign exactly the same probability to a given type of outcome. But if the data sets are large and the methods used to collect the data for the two data sets are consistent, the agreement between the models is likely to be reasonably good.
4. Understand that a (theoretical) uniform probability model may be judged by comparing it to an empirical probability model for the same process. If the theoretical assumptions are appropriate and the data set is large, then the two models should agree approximately. If the agreement is not good, then it may be necessary to modify the assumptions underlying the theoretical model or look for factors that might have affected the data used to create the empirical model.
5. Use a uniform probability model to compute probabilities for a process involving uncertainty, including the random selection of a person from a population and physical situations where symmetry suggests that different individual outcomes are equally likely.
    a. List the individual outcomes to create a sample space.
    b. Label the individual outcomes in the sample space to reflect important characteristics or quantities associated with them.
    c. Determine probabilities of individual outcomes, and determine the probability of a type or category of outcome as the fraction of individual outcomes it includes.
6. Generate data by sampling, repeated experimental trials, and simulations. Record and appropriately label such data, and use them to construct an empirical probability model. Compute probabilities in such models.
7. Compare probabilities from a theoretical model to probabilities from a corresponding empirical model for the same situation. If the agreement is not good, explain possible sources of the discrepancies.

Independently Combined Probability Models S-IPM

1. Understand that to describe a pair of random processes (such as tossing a coin and rolling a number cube), or one random process repeated twice (such as randomly selecting a student in the class on two different days), two probability models can be combined into a single model.

a. The sample space for the combined model is formed by listing all possible ordered pairs that combine an individual outcome from the first model with an individual outcome from the second. Each ordered pair is an individual outcome in the combined model.

b. The total number of individual outcomes (ordered pairs) in the combined model is the product of the number of individual outcomes in each of the two original models.

2. Understand that when two probability models are combined independently, the probability that one type of outcome in the first model occurs together with another type of outcome in the second model is the product of the two corresponding probabilities in the original models (the Multiplication Rule).

3. Combine two uniform models independently to compute probabilities for a pair of random processes (e.g., flipping a coin twice, selecting one person from each of two classes).

a. Use organized lists, tables and tree diagrams to represent the combined sample space.

b. Determine probabilities of ordered pairs in the combined model, and determine the probability of a particular type or category of outcomes in the combined model, as the fraction of ordered pairs corresponding to it.

4. For two independently combined uniform models, use the Multiplication Rule to determine probabilities.

Making Inferences and Justifying Conclusions S-IC

1. Understand that 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. Understand that the design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions.

3. Understand that simulation-based techniques are powerful tools for making inferences and justifying conclusions from data.

4. Use probabilistic reasoning to decide if a specified model is consistent with results from a given data-generating process. (For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?)

5. Recognize the purposes of and differences among sample surveys, experiments and observational studies; explain how randomization relates to each.

6. Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.

7. Use data from a randomized experiment to compare two treatments; justify significant differences between parameters through the use of simulation models for random assignment.

8. Evaluate reports based on data.

Conditional Probability and the Laws of Probability S-CP

1. Understand that events are subsets of a sample space; often, events of interest are defined by using characteristics (or categories) of the sample points, or as unions, intersections, or complements thereof ("and," "or," "not"). A sample point may belong to several events (categories).

2. Understand that if A and B are two events, then in a uniform model the conditional probability of A given B, denoted by $P(A \mid B)$, is the fraction of B's sample points that also lie in A.

3. Understand that the laws of probability allow one to use known probabilities to determine other probabilities of interest.

4. Compute probabilities by constructing and analyzing sample spaces, representing them by tree diagrams, systematic lists, and Venn diagrams.

5. Use the laws of probability to compute probabilities.

6. Apply concepts such as intersections, unions and complements of events, and conditional probability and independence to define or analyze events, calculate probabilities and solve problems.

7. 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. ★

8. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. ★

9. Use permutations and combinations to compute probabilities of compound events and solve problems.

★ Standard with close connection to modeling.

Experimenting and Simulating to Model Probabilities S-ES

1. Understand that 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.
2. Understand that the probability of an outcome can be interpreted as an assertion about the long-run proportion of the outcome's occurrence if the random experiment is repeated a large number of times.
3. Calculate experimental probabilities by performing simulations or experiments involving a probability model and using relative frequencies of outcomes.
4. Compare the results of simulations with predicted probabilities. When there are substantial discrepancies between predicted and observed probabilities, explain them.
5. Use the mean and standard deviation of a data set to fit it to a normal distribution 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.

Using Probability to Make Decisions S-MD

1. Understand that the expected value of a random variable is the weighted average of its possible values, with weights given by their respective probabilities.
2. Understand that 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 an investment.
3. Calculate expected value, e.g. to determine the fair price of an investment.
4. Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).
5. Evaluate and compare two investments or strategies with the same expected value, where one investment or strategy is safer than the other.
6. Evaluate and compare two investments or strategies, where one investment or strategy is safer but has lower expected value. Include large and small investments, and situations with serious consequences.
7. Analyze decisions and strategies using probability concepts (e.g. product testing, medical testing, pulling a hockey goalie at the end of a game).

Mathematics | High School—Geometry

An understanding of the attributes and relationships of geometric objects can be applied in diverse contexts—interpreting a schematic drawing, estimating the amount of wood needed to frame a sloping roof, rendering computer graphics, or designing a sewing pattern for the most efficient use of material.

Understanding the attributes of geometric objects often relies on measurement: a circle is a set of points in a plane at a fixed distance from a point; a cube is bounded by six squares of equal area; when two parallel lines are crossed by a transversal, pairs of corresponding angles are congruent.

The concepts of congruence, similarity and symmetry can be united under the concept of geometric transformation. Reflections and rotations each explain a particular type of symmetry, and the symmetries of an object offer insight into its attributes—as when the reflective symmetry of an isosceles triangle assures that its base angles are congruent. Applying a scale transformation to a geometric figure yields a similar figure. The transformation preserves angle measure, and lengths are related by a constant of proportionality.

The definitions of sine, cosine and tangent for acute angles are founded on right triangle similarity, and, with the Pythagorean theorem, are fundamental in many real-world and theoretical situations.

Coordinate geometry is a rich field for exploration. How does a geometric transformation such as a translation or reflection affect the coordinates of points? How is the geometric definition of a circle reflected in its equation? Coordinates can describe locations in three dimensions and extend the use of algebraic techniques to problems involving the three-dimensional world we live in.

Dynamic geometry environments provide students with experimental and modeling tools that allow them to investigate geometric phenomena in much the same was as CAS environments allow them to experiment with algebraic phenomena.

Connections to Equations and Inequalities. The correspondence between numerical coordinates and geometric points allows methods from algebra to be applied to geometry and vice versa. The solution set of an equation becomes a geometric curve, making visualization a tool for doing and understanding algebra. Geometric shapes can be described by equations, making algebraic manipulation into a tool for geometric understanding, modeling and proof.

Content Outline

Congruence

Similarity, Right Triangles, and Trigonometry

Circles

Expressing Geometric Properties with Equations

Trigonometry of General Triangles

Geometric Measurement and Dimension

Modeling with Geometry

Congruence G-CO

1. Understand that two geometric figures are congruent if there is a sequence of rigid motions (rotations, reflections, translations) that carries one onto the other. This is the principle of superposition.
2. Understand that criteria for triangle congruence are ways to specify enough measures in a triangle to ensure that all triangles drawn with those measures are congruent.
3. Understand that criteria for triangle congruence (ASA, SAS, and SSS) can be established using rigid motions.
4. Understand that geometric diagrams can be used to test conjectures and identify logical errors in fallacious proofs.
5. Know and use (in reasoning and problem solving) definitions of angles, polygons, parallel, and perpendicular lines, rigid motions, parallelograms and rectangles.
6. Prove theorems about lines and angles. *Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; 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.*
7. Prove theorems about triangles. *Theorems include: measures of interior angles of a triangle sum to 180°, base angles of isosceles triangles are congruent, the triangle inequality, the longest side of a triangle faces the angle with the greatest measure 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.*
8. Use and prove properties of and relationships among special quadrilaterals: parallelogram, rectangle, rhombus, square, trapezoid and kite.
9. 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.
10. 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.*
11. Construct an equilateral triangle, a square and a regular hexagon inscribed in a circle.
12. Use two-dimensional representations to transform figures and to predict the effect of translations, rotations, and reflections.
13. Use two-dimensional representations to transform figures and to predict the effect of dilations.

Similarity, Right Triangles, and Trigonometry G-SRT

1. Understand that dilating a line produces a line parallel to the original. (In particular, lines passing through the center of the dilation remain unchanged.)
2. Understand that 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. Understand that the assumed properties of dilations can be used to establish the AA, SAS, and SSS criteria for similarity of triangles.
4. Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of sine, cosine, and tangent.
5. Understand that a line parallel to one side of a triangle divides the other two proportionally, and conversely.
6. Use triangle similarity criteria to solve problems and to prove relationships in geometric figures. *Include a proof of the Pythagorean theorem using triangle similarity.*
7. Use and explain the relationship between the sine and cosine of complementary angles.
8. Use sine, cosine, tangent, and the Pythagorean Theorem to solve right triangles[2] in applied problems.
9. STEM 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.

Circles G-C

1. Understand that dilations can be used to show that all circles are similar.
2. Understand that there is a unique circle through three non-collinear points, and four circles tangent to three non-concurrent lines.

[2] 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.

3. Identify and define radius, diameter, chord, tangent, secant, and circumference.
4. 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.*
5. Determine the arc lengths and the areas of sectors of circles, using proportions.
6. STEM Construct a tangent line from a point outside a given circle to the circle.
7. STEM Prove and use theorems about circles, and use these theorems to solve problems involving:
   a. Symmetries of a circle
   b. Similarity of a circle to any other
   c. Tangent line, perpendicularity to a radius
   d. Inscribed angles in a circle, relationship to central angles, and equality of inscribed angles
   e. Properties of chords, tangents, and secants as an application of triangle similarity.

Expressing Geometric Properties with Equations G-GPE

1. Understand that two lines with well-defined slopes are perpendicular if and only if the product of their slopes is equal to –1.
2. Understand that the equation of a circle can be found using its definition and the Pythagorean Theorem.
3. Understand that transforming the graph of an equation by reflecting in the axes, translating parallel to the axes, or applying a dilation in one of the coordinate directions corresponds to substitutions in the equation.
4. STEM Understand that an ellipse is the set of all points whose distances from two fixed points (the foci) are a constant sum. The graph of $x^2/a^2 + y^2/b^2 = 1$ is an ellipse with foci on one of the axes.
5. STEM Understand that a parabola is the set of points equidistant from a fixed point (the focus) and a fixed line (the directrix). The graph of any quadratic function is a parabola, and all parabolas are similar.
6. STEM Understand that the formula $A = \pi ab$ for the area of an ellipse can be derived from the formula for the area of a circle.★
7. Use the slope criteria for parallel and perpendicular lines to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).
8. Find the point on the segment between two given points that divides the segment in a given ratio.
9. Use coordinates to compute perimeters of polygons and areas for triangles and rectangles, e.g. using the distance formula.★
10. Decide whether a point with given coordinates lies on a circle defined by a given equation.
11. Use coordinates to prove simple geometric theorems algebraically. For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point $(1, \sqrt{3})$ lies on the circle centered at the origin and containing the point (0, 2).
12. Complete the square to find the center and radius of a circle given by an equation.
13. STEM Find an equation for an ellipse given in the coordinate plane with major and minor axes parallel to the coordinate axes.
14. STEM Calculate areas of ellipses to solve problems.★

Trigonometry of General Triangles G-TGT

1. STEM Understand that the formula $A = \frac{1}{2} ab \sin(C)$ for the area of a triangle can be derived by drawing an auxiliary line from a vertex perpendicular to the opposite side. Applying this formula in three different ways leads to the Law of Sines.
2. STEM Understand that the Law of Cosines generalizes the Pythagorean Theorem.
3. STEM Understand that the sine, cosine and tangent of the sum or difference of two angles can be expressed in terms of sine, cosine, and tangent of the angles themselves using the addition formulas.
4. STEM Understand that 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.
5. STEM Explain proofs of the Law of Sines and the Law of Cosines.

★ Standard with close connection to modeling.

6. STEM 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 G-GMD

1. Understand that the area of a decomposed figure is the sum of the areas of its components and is independent of the choice of dissection.
2. STEM Understand that lengths of curves and areas of curved regions can be defined using the informal notion of limit.
3. STEM Understand that Cavalieri's principle allows one to understand volume formulas informally by visualizing volumes as stacks of thin slices.
4. Find areas of polygons by dissecting them into triangles.
5. Explain why the volume of a cylinder is the area of the base times the height, using informal arguments.
6. For a pyramid or a cone, give a heuristic argument to show why its volume is one-third of its height times the area of its base.
7. Apply formulas and solve problems involving volume and surface area of right prisms, right circular cylinders, right pyramids, cones, spheres and composite figures.
8. STEM Identify cross-sectional shapes of slices of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.
9. STEM Use the behavior of length and area under dilations to show that the circumference of a circle is proportional to the radius and the area of a circle is proportional to the square of the radius. Identify the relation between the constants of proportionality with an informal argument involving dissection and recomposition of a circle into an approximate rectangle.

Modeling with Geometry G-MG

1. Understand that models of objects and structures can be built from a library of standard shapes; a single kind of shape can model seemingly different objects. ★
2. Use geometric shapes, their measures and their properties to describe objects (e.g., modeling a tree trunk or a human torso or as a cylinder). ★
3. Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot). ★
4. Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy constraints or minimize cost; working with typographic grid systems based on ratios). ★

★ Standard with close connection to modeling.

Glossary

Addition and subtraction within 10, 20, or 100. Addition or subtraction of whole numbers with whole number answers, and with sum or minuend at most 10, 20, or 100. Example: 8 + 2 = 10 is an addition within 10, 14 – 5 = 9 is a subtraction within 20, and 55 – 18 = 37 is a subtraction within 100.

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 $3/4 + (-3/4) = (-3/4) + 3/4 = 0$.

Box plot. A method of visually displaying a distribution of data values by using the median, quartiles, and extremes of the data set. A box shows the middle 50% of the data.[3]

Complex fraction. A fraction A/B where A and/or B are fractions.

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).

Counting on. A strategy for finding the number of objects in a group without having to count every member of the group. For example, if a stack of books is known to have 8 books and 3 more books are added to the top, it is not necessary to count the stack all over again; one can find the total by *counting on*—pointing to the top book and saying "eight," following this with "nine, ten, eleven. There are eleven books now."

Decade word. A word referring to a single-digit multiple of ten, as in *twenty*, *thirty*, *forty*, etc.

Dot plot. A method of visually displaying a distribution of data values where each data value is shown as a dot or mark above a number line. Also known as a line plot.[4]

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.

Empirical probability model. A probablity model based on a data set for a random process in which the probability of a particular type or category of outcome equals the percentage of data points included in the category. Example: If a coin is tossed 10 times and 4 of the tosses are Heads, then the empirical probability of Heads in the empirical probability model is $4/10$ (equivalently 0.4 or 40%).

Equivalent fractions. Two fractions a/b and c/d that represent the same number.

Expanded form. A multidigit number is expressed in expanded form when it is written as a sum of single-digit multiples of powers of ten. For example, 643 = 600 + 40 + 3.

First quartile. For a data set with median M, the first quartile is the median of the data values less than M. Example: For the data set {1, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the first quartile is 6.[5] *See also* median, third quartile, interquartile range.

Fraction. A number expressible in the form a/b where a is a whole number and b is a positive whole number. (The word *fraction* in these standards always refers to a nonnegative number.) *See also* rational number.

Independently combined probability models. Two probability models are said to be combined independently if the probability of each ordered pair in the combined model equals the product of the original probabilities of the two individual outcomes in the ordered pair.

Integer. A number expressible in the form a or $-a$ for some whole number a.

Interquartile Range. A measure of variation in a set of numerical data, the interquartile range is the distance between the first and third quartiles of the data set. Example: For the data set {1, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the interquartile range is 15 – 6 = 9. *See also* first quartile, third quartile.

Laws of arithmetic. See Table 3 in this Glossary.

Line plot. See dot plot.

Mean. A measure of center in a set of numerical data, computed by adding the values in a list and then dividing by the number of values in the list.[6] Example: For the data set {1, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the mean is 21.

Mean absolute deviation. A measure of variation in a set of numerical data, computed by adding the distances between each data value and the mean, then dividing by the number of data values. Example: For the data set {2, 3, 6, 7, 10, 12, 14, 15, 22, 120}, the mean absolute deviation is 20.

Median. A measure of center in a set of numerical data. The median of a list of values is 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. Example: For the data set {2, 3, 6, 7, 10, 12, 14, 15, 22, 90}, the median is 11.

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[3] Adapted from Wisconsin Department of Public Instruction, http://dpi.wi.gov/standards/mathglos.html, accessed March 2, 2010.

[4] Adapted from Wisconsin Department of Public Instruction, *op. cit.*.

[5] Many different methods for computing quartiles are in use. The method defined here is sometimes called the Moore and McCabe method. See Langford, E., "Quartiles in Elementary Statistics," *Journal of Statistics Education* Volume 14, Number 3 (2006),

[6] To be more precise, this defines the *arithmetic mean*.

Multiplication and division within 100. Multiplication or division of whole numbers with whole number answers, and with product or dividend at most 100. Example: $72 \div 8 = 9$.

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 $3/4 \times 4/3 = 4/3 \times 3/4 = 1$.

Properties of equality. See Table 4 in this Glossary.

Properties of inequality. See Table 5 in this Glossary.

Properties of operations. Associativity and commutativity of addition and multiplication, distributivity of multiplication over addition, the additive identity property of 0, and the multiplicative identity property of 1.See Table 3 in this Glossary.

Probability. A number between 0 and 1 used to quantify likelihood for processes that have uncertain outcomes (such as tossing a coin, selecting a person at random from a group of people, tossing a ball at a target, testing for a medical condition).

Rational number. A number expressible in the form a/b or $-a/b$ for some fraction a/b. The rational numbers include the integers.

Related fractions. Two fractions are said to be related if one denominator is a factor of the other.[7]

Rigid motion. A transformation of points in space consisting of one or more translations, reflections, and/or rotations. Rigid motions are here assumed to preserve distances and angle measures.

Sample space. In a probability model for a random process, a list of the individual outcomes that are to be considered.

Scatter plot. A graph in the coordinate plane representing a set of bivariate data. For example, the heights and weights of a group of people could be displayed on a scatter plot.[8]

Similarity transformation. A rigid motion followed by a dilation.

Tape diagrams. Drawings that look like a segment of tape, used to illustrate number relationships. Also known as strip diagrams, bar models or graphs, fraction strips, or length models.

Teen number. A whole number that is greater than or equal to 11 and less than or equal to 19.

Third quartile. For a data set with median M, the third quartile is the median of the data values greater than M. Example: For the data set $\{2, 3, 6, 7, 10, 12, 14, 15, 22, 120\}$, the third quartile is 15. *See also* median, first quartile, interquartile range.

Uniform probability model. A probability model in which the individual outcomes all have the same probability ($1/N$ if there are N individual outcomes in the sample space). If a given type of outcome consists of M individual outcomes, then the probability of that type of outcome is M/N. Example: if a uniform probability model is used to model the process of randomly selecting a person from a class of 32 students, and if 8 of the students are left-handed, then the probability of randomly selecting a left-handed student is $8/32$ (equivalently $1/4$, 0.25 or 25%).

Whole numbers. The numbers 0, 1, 2, 3, ...

[7] 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.

[8] Adapted from Wisconsin Department of Public Instruction, *op. cit.*.

TABLE 1. Common addition and subtraction situations.[9]

	Result Unknown	Change Unknown	Start Unknown
Add to	Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? 2 + 3 = ?	Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? 2 + ? = 5	Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? ? + 3 = 5
Take from	Five apples were on the table. I ate two apples. How many apples are on the table now? 5 – 2 = ?	Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? 5 – ? = 3	Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? ? – 2 = 3

	Total Unknown	Addend Unknown	Both Addends Unknown[10]
Put Together/ Take Apart[11]	Three red apples and two green apples are on the table. How many apples are on the table? 3 + 2 = ?	Five apples are on the table. Three are red and the rest are green. How many apples are green? 3 + ? = 5, 5 – 3 = ?	Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? 5 = 0 + 5, 5 = 5 + 0 5 = 1 + 4, 5 = 4 + 1 5 = 2 + 3, 5 = 3 + 2

	Difference Unknown	Bigger Unknown	Smaller Unknown
Compare[12]	("How many more?" version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? ("How many fewer?" version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? 2 + ? = 5, 5 – 2 = ?	(Version with "more"): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? 2 + 3 = ?, 3 + 2 = ?	(Version with "more"): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? 5 – 3 = ?, ? + 3 = 5

[9] Adapted from Box 2-4 of National Research Council (2009, op. cit., pp. 32, 33).

[10] These *take apart* situations can be used to show all the decompositions of a given number. The associated equations, which have the total on the left of the equal sign, help children understand that the = sign does not always mean *makes* or *results in* but always does mean *is the same number as*.

[11] Either addend can be unknown, so there are three variations of these problem situations. Both Addends Unknown is a productive extension of this basic situation especially for small numbers less than or equal to 10.

[12] For the Bigger Unknown or Smaller Unknown situations, one version directs the correct operation (the version using *more* for the bigger unknown and using *less* for the smaller unknown). The other versions are more difficult.

TABLE 2. Common multiplication and division situations.[13]

	Unknown Product	**Group Size Unknown** ("How many in each group?" Division)	**Number of Groups Unknown** ("How many groups?" Division)
	3 × 6 = ?	**3 × ? = 18 and 18 ÷ 3 = ?**	**? × 6 = 18 and 18 ÷ 6 = ?**
Equal Groups	There are 3 bags with 6 plums in each bag. How many plums are there in all? *Measurement example.* You need 3 lengths of string, each 6 inches long. How much string will you need altogether?	If 18 plums are shared equally into 3 bags, then how many plums will be in each bag? *Measurement example.* You have 18 inches of string, which you will cut into 3 equal pieces. How long will each piece of string be?	If 18 plums are to be packed 6 to a bag, then how many bags are needed? *Measurement example.* You have 18 inches of string, which you will cut into pieces that are 6 inches long. How many pieces of string will you have?
Arrays,[14] Area[15]	There are 3 rows of apples with 6 apples in each row. How many apples are there? *Area example.* What is the area of a 3 cm by 6 cm rectangle?	If 18 apples are arranged into 3 equal rows, how many apples will be in each row? *Area example.* A rectangle has area 18 square centimeters. If one side is 3 cm long, how long is a side next to it?	If 18 apples are arranged into equal rows of 6 apples, how many rows will there be? *Area example.* A rectangle has area 18 square centimeters. If one side is 6 cm long, how long is a side next to it?
Compare	A blue hat costs $6. A red hat costs 3 times as much as the blue hat. How much does the red hat cost? *Measurement example.* A rubber band is 6 cm long. How long will the rubber band be when it is stretched to be 3 times as long?	A red hat costs $18 and that is 3 times as much as a blue hat costs. How much does a blue hat cost? *Measurement example.* A rubber band is stretched to be 18 cm long and that is 3 times as long as it was at first. How long was the rubber band at first?	A red hat costs $18 and a blue hat costs $6. How many times as much does the red hat cost as the blue hat? *Measurement example.* A rubber band was 6 cm long at first. Now it is stretched to be 18 cm long. How many times as long is the rubber band now as it was at first?
General	$a \times b = ?$	$a \times ? = p$ and $p \div a = ?$	$? \times b = p$ and $p \div b = ?$

[13] The first examples in each cell are examples of discrete things. These are easier for students and should be given before the measurement examples.
[14] The language in the array examples shows the easiest form of array problems. A harder form is to use the terms rows and columns: The apples in the grocery window are in 3 rows and 6 columns. How many apples are in there? Both forms are valuable.
[15] Area involves arrays of squares that have been pushed together so that there are no gaps or overlaps, so array problems include these especially important measurement situations.

TABLE 3. The laws of arithmetic, including the properties of operations (identified with °). Here a, b and c stand for arbitrary numbers in a given number system. The laws of arithmetic apply to the rational number system, the real number system, and the complex number system.

°*Associative law of addition*	$(a + b) + c = a + (b + c)$
°*Commutative law of addition*	$a + b = b + a$
°*Additive identity property of 0*	$a + 0 = 0 + a = a$
Existence of additive inverses	For every a there exists $-a$ so that $a + (-a) = (-a) + a = 0$.
°*Associative law of multiplication*	$(a \times b) \times c = a \times (b \times c)$
°*Commutative law of multiplication*	$a \times b = b \times a$
°*Multiplicative identity property of 1*	$a \times 1 = 1 \times a = a$
Existence of multiplicative inverses	For every $a \neq 0$ there exists $1/a$ so that $a \times 1/a = 1/a \times a = 1$.
°*Distributive law of multiplication over addition*	$a \times (b + c) = a \times b + a \times c$

TABLE 4. The properties of equality. Here a, b and c stand for arbitrary numbers in the rational, real, or complex number systems.

Reflexive property of equality	$a = a$
Symmetric property of equality	If $a = b$, then $b = a$.
Transitive property of equality	If $a = b$ and $b = c$, then $a = c$.
Addition property of equality	If $a = b$, then $a + c = b + c$.
Subtraction property of equality	If $a = b$, then $a - c = b - c$.
Multiplication property of equality	If $a = b$, then $a \times c = b \times c$.
Division property of equality	If $a = b$ and $c \neq 0$, then $a \div c = b \div c$.
Substitution property of equality	If $a = b$, then b may be substituted for a in any expression containing a.

TABLE 5. The properties of inequality. Here a, b and c stand for arbitrary numbers in the rational or real number systems.

Exactly one of the following is true: $a < b$, $a = b$, $a > b$.
If $a > b$ and $b > c$ then $a > c$.
If $a > b$, then $b < a$.
If $a > b$, then $-a < -b$.
If $a > b$, then $a \pm c > b \pm c$.
If $a > b$ and $c > 0$, then $a \times c > b \times c$.
If $a > b$ and $c < 0$, then $a \times c < b \times c$.
If $a > b$ and $c > 0$, then $a \div c > b \div c$.
If $a > b$ and $c < 0$, then $a \div c < b \div c$.

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COMMON CORE STATE STANDARDS FOR

English Language Arts and Literacy in History/Social Studies & Science

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Introduction

The *Common Core State Standards for English Language Arts and Literacy in History/Social Studies and Science* are the culmination of an extended, broad-based effort to fulfill the charge issued by the states to create the next generation of K–12 standards that help ensure that all students are college and career ready in literacy by no later than the end of high school. The *Standards* set requirements for English language arts (ELA) but also for reading, writing, speaking, listening, and language in the social and natural sciences. Just as students must learn to communicate effectively in a variety of content areas, so too must the *Standards* specify the literacy skills and understandings required for eventual college and career readiness in history, social studies, and science as well as ELA. By their structure, the *Standards* encourage curriculum makers to take a comprehensive approach that coordinates ELA courses with courses in other subject areas in order to help students acquire a wide range of ever more sophisticated knowledge and skills through reading, writing, speaking, and listening.

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, including their work on the American Diploma Project with Achieve. The *Standards* also draw on 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 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, speaking, listening, and language as well as in mathematics. The CCR Reading, Writing, and Speaking and Listening Standards, released in draft form in September 2009, serve, in revised form, as the backbone of the present document. Consistent across grades and disciplines, the CCR Standards create an essential unity within the document and a consistent point of reference for educators. Whether guiding third graders through a science unit or high school sophomores through a classic work of literature, teachers can look to the same CCR Standards—included in each section of this document—to help judge whether students are on course for being college and career ready. Grade-specific K–12 standards in reading, writing, speaking, listening, and language translate the broad (and, for the earliest grades, seemingly distant) aims of the CCR Standards into age- and attainment-appropriate terms.

While college and career readiness is the end point of the *Standards*—an ambitious goal in its own right—some students will reach that point before the end of high school. For those students who do complete the *Standards*' requirements before graduation, advanced work in such areas as literature, composition, language, and journalism should be available. It is beyond the scope of the *Standards* to describe what such advanced work should consist of, but it should 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 are expected to demonstrate have wide applicability outside the classroom or workplace. Students who meet the *Standards* readily undertake the close, attentive reading that is at the heart of understanding and enjoying complex works of literature. They habitually perform the critical reading necessary to pick carefully through the staggering amount of information available today in print and online. They actively seek the wide, deep, and thoughtful engagement with high-quality literary and informational texts that builds knowledge, enlarges experience, and broadens worldviews. They reflexively demonstrate the cogent reasoning and use of evidence that is essential to both private deliberation and responsible citizenship in a democratic republic. In short, students who master the *Standards* develop the skills in reading, writing, speaking, and listening that are the foundation for any creative and purposeful expression in language.

March 2010

Key Design Considerations

A focus on results rather than means

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. Thus, the *Standards* do not mandate such things as a particular writing process or specify the full range of metacognitive strategies that students may need to use to monitor and direct their thinking and learning. Teachers are thus free to provide students with whatever tools and knowledge their professional judgment and experience identify as most helpful for meeting the goals set out in the *Standards*.

An integrated model of literacy

Although the *Standards* are divided into Reading, Writing, Speaking and Listening, and Language strands for conceptual clarity, the processes of communication are closely connected, as reflected throughout this document. For example, Writing Standard #9 requires that students be able to write about what they read. Likewise, Speaking and Listening Standard #4 sets the expectation that students will share findings from their research.

Language conventions and vocabulary are treated in detail in a separate strand not because those skills should be taught in isolation from other communication activities but because their importance extends beyond writing and reading, where standards documents often place such skills. Many of the conventions must be observed in standard spoken as well as written English, and students, particularly the youngest ones, encounter and acquire new words through conversations as well as through texts. To signal the link between the Language skills and the rest of the standards even more strongly, some skills associated with language use are also found in other strands when appropriate. Reading Standard #4, for example, concerns determining word meanings, and Writing Standard #5 includes editing among the skills students must be able to use to strengthen writing.

Research and media skills integrated into the Standards *as a whole*

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. The need to research and to consume and produce media is embedded into every element of today's curriculum; in like fashion, the associated skills and understandings are embedded throughout the *Standards* rather than treated in a separate section.

Shared responsibility for students' literacy development

The *Standards* establish that instruction in reading, writing, speaking, listening, and language is a shared responsibility. The *Standards* present reading instruction in K–5 as fully integrative, including a rich blend of stories, drama, and poetry as well as informational texts from a range of content areas. ELA-specific standards for grade 6 and above include fiction, poetry, and drama but also literary nonfiction (e.g., speeches, essays, and historical documents with significant cultural importance and literary merit). Literacy standards specific to history/social studies and science for grade 6 and above are predicated on teachers in these areas using their unique disciplinary expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language in their respective fields.

Part of the motivation behind the interdisciplinary approach to literacy promulgated by the *Standards* is extensive research establishing the need for college- and career-ready students to be proficient in reading complex informational text independently in a variety of content areas. Most of the required reading in college and workforce training programs is informational in structure and challenging in content; postsecondary education programs typically provide students with both a higher volume of such reading than is generally required in K–12 schools and comparatively little scaffolding.

The *Standards* are not alone in calling for a special emphasis on informational text. The 2009 reading framework of the National Assessment of Educational Progress (NAEP) requires a high and increasing proportion of informational text on its assessment as students advance through the grades.

Distribution of Literary and Informational Passages by Grade in the 2009 NAEP Reading Framework

Grade	Literary	Informational
4	50%	50%
8	45%	55%
12	30%	70%

The *Standards* aim to align instruction with this framework so that many more students can meet the demands of college and career readiness. In K–5, the *Standards* balance the teaching of literature with informational text, including texts in history/social studies and science. Fulfilling the standards for 6–12 ELA requires much greater attention to literary nonfiction than has been traditional. The NAEP framework also makes clear that significant reading of informational texts should take place outside of the ELA classroom in order for students to be ready for college and careers. The NAEP framework applies the sum of all the reading students do in a grade, not just their reading in the ELA context. The percentages do not imply, for example, that high school ELA teachers must teach 70 percent informational text; they demand instead that a great deal of reading should occur in other disciplines. To measure students' growth toward college and career readiness, assessments aligned with the *Standards* should adhere to the distribution of texts across grades cited in the NAEP framework.

A progression of writing toward college and career readiness

NAEP likewise outlines a distribution across the grades of the core purposes and types of student writing. Similar to the *Standards,* the NAEP framework cultivates the development of three mutually reinforcing writing capacities: writing to persuade, to explain, and to convey real or imagined experience. Evidence concerning the demands of college and career readiness gathered during development of the *Standards* concurs with NAEP's shifting emphases: in grades 9–12 in the *Standards*, students continue writing in all three forms but focus overwhelmingly on writing to argue and to inform or explain.

Distribution of Communicative Purposes by Grade in the 2011 NAEP Writing Framework

Grade	To Persuade	To Explain	To Convey Experience
4	30%	35%	35%
8	35%	35%	30%
12	40%	40%	20%

It follows that writing assessments aligned with the *Standards* should adhere to the distribution of writing purposes across grades outlined by NAEP.

Grade levels for K–8; grade bands for 9–10 and 11–12

The *Standards* use individual grade levels in kindergarten through grade 8 to provide useful specificity; the *Standards* use two-year bands in grades 9–12 to allow schools, districts, and states flexibility in high school course design.

What is not *covered by the* Standards

The *Standards* should be recognized for what they are *not* as well as what they are. Three of the most important intentional design limitations are as follows:

1) The *Standards* define what all students are expected to know and be able to do but not *how* teachers should teach. The *Standards* must be complemented by a well-developed, content-rich curriculum consistent with the expectations laid out in this document.

2) While the *Standards* do attempt to focus on what is most essential, they do not describe all that *can* or *should* be taught. A great deal is left to the discretion of teachers and curriculum developers. The aim of the *Standards* is to articulate the fundamentals, not to set out an exhaustive list nor a set of restrictions that limits what can be taught beyond what is specified herein.

3) The *Standards* set grade-level standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations. No set of grade-level standards can fully reflect the great variety in achievement levels of students in any given classroom. However, the *Standards* do provide clear signposts along the way to the goal of college and career readiness for all students.

The Student Who is College and Career Ready in Reading, Writing, Speaking, Listening, and Language

The descriptions that follow are not standards themselves, but instead offer a portrait of students who meet the standards set out in this document. As students advance through the grades and master the standards in reading, writing, speaking, listening, and language, they are able to exhibit with increasing fullness and regularity these capacities of the literate individual.

They demonstrate independence.

Students can, without significant scaffolding or support, comprehend and evaluate complex texts 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 and request clarification if something is not understood. They ask relevant questions, build on others' ideas, articulate their own ideas, and ask for confirmation that they have been understood. Without prompting, they observe language conventions, determine word meanings, attend to the connotations of words, and acquire new vocabulary.

They build strong content knowledge.

Students establish a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and discipline-specific expertise. They refine and share their knowledge through writing and speaking.

They respond to the varying demands of audience, task, purpose, and discipline.

Students consider their communication in relation to audience, task, purpose, and discipline. They appreciate nuances, such as how the composition of an audience should affect tone when speaking 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).

They comprehend as well as critique.

Students are engaged and open-minded—but discerning—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.

They value 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.

They use technology and digital media 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.

They come to understand other perspectives and cultures.

Students appreciate that the twenty-first-century classroom and workplace are settings in which people from often widely divergent cultures and who represent diverse experiences and perspectives must learn and work together. Students actively seek to understand other perspectives and cultures through reading and listening, and they are able to communicate effectively with people of varied backgrounds. They evaluate other points of view critically and constructively. Through reading great classic and contemporary works of literature representative of a variety of periods, cultures, and worldviews, students can vicariously inhabit worlds and have experiences much different than their own.

How to Read This Document

Overall Document Organization and Main Features

The *Standards* comprise three main sections: a comprehensive K–5 section and two content area–specific sections for grades 6–12, one in English language arts and one in history/social studies and science.

Each section is divided into Reading, Writing, Speaking and Listening, and Language *strands*. Each strand is headed by a set of *College and Career Readiness (CCR) Standards* that is identical across all grades and content areas. The uniformity of the CCR Standards provides a consistent point of reference for educators, facilitating schoolwide goal setting and professional development.

CCR Standards: The basis for the K–12 Standards

Standards for each grade within K–8 and for grades 9–10 and 11–12 follow the College and Career Readiness (CCR) Standards in each strand. Each *grade-specific standard* (as these standards will be collectively referred to) corresponds to a particular CCR Standard. Put another way, each CCR Standard has an accompanying grade-specific standard translating the broader CCR statement into grade-appropriate terms.

Who is responsible for which portion of the Standards

A single K–5 section sets CCR and grade-specific standards for reading, writing, speaking, listening, and language across the curriculum, reflecting the fact that most or all of the instruction students receive in these grades comes from one elementary school teacher. Grades 6–12 are covered in two content area–specific sections, the first for the English language arts teacher and the second for the history/social studies and the science teacher. Each of these sections uses the same CCR Standards but also includes discipline-specific standards tuned to the literacy requirements of these disciplines. It is important to note that the literacy standards in history/social studies and science are meant to complement rather than supplant content standards in those disciplines.

Key Features of the Strands

Reading: Text complexity and the growth of comprehension

To foster students' ability to comprehend literary and informational texts of steadily increasing complexity, the *Standards* (starting formally in grade 2) define what proportion of the texts students read each year should come from a particular text complexity grade band (2–3, 4–5, 6–8, 9–10, or 11–12). Whatever they are reading, students must also show a steadily increasing ability to discern more from and make fuller use of text, including 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.

Writing: Text types, responding to sources, and research

The *Standards* acknowledge the fact that whereas some writing skills, such as the ability to reflect purpose, task, and audience, are important for many types of writing, others are more properly part of writing narratives, informative and explanatory texts, or arguments. Beginning at grade 4, the *Standards* specify the sorts of writing over extended and shorter time frames that students in each grade are to produce in response to sources. Because of the centrality of writing to most forms of inquiry, research standards are primarily included in this strand.

Speaking and Listening: Flexible communication and interpersonal skills

Including but not limited to skills necessary for formal presentations, the Speaking and Listening standards require students to develop a range of broadly useful oral communication and interpersonal skills. 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: Conventions and vocabulary

The Conventions standards in the Language 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. The Vocabulary standards focus on both understanding words and their nuances and acquiring new words through conversation, reading, and being taught them directly.

Appendices

Appendix A contains supplementary material on reading text complexity, writing, speaking and listening, language conventions, and vocabulary. Appendix B consists of text exemplars illustrating the complexity, quality, and range of reading appropriate for various grade levels. Appendix C includes annotated writing samples demonstrating at least adequate performance at various grade levels.

Standards for English Language Arts and Literacy in History/Social Studies & Science

K–5

College and Career Readiness Standards for Reading

The K–5 standards on the following pages define what students should understand and be able to do in each grade and build toward the ten College and Career Readiness Standards.

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze in detail how, when, why, and how events, ideas, and characters develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and explain how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section or chapter) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Synthesize and apply information presented in diverse ways (e.g., through words, images, graphs, and video) in print and digital sources in order to answer questions, solve problems, or compare modes of presentation.[1]
8. Delineate and evaluate the reasoning and rhetoric within a text, including assessing whether the evidence provided is relevant and sufficient to support the text's claims.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range and Level of Text Complexity

10. Read complex texts independently, proficiently, and fluently, sustaining concentration, monitoring comprehension, and, when useful, rereading.[2]

[1]Please see "Research to Build Knowledge" in Writing and "Comprehension and Collaboration" in Speaking and Listening for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

[2]Proficiency in this standard is measured by students' ability to read a range of appropriately complex texts in each grade as defined on page 14.

Note on range and content of student reading

To build a foundation for college and career readiness, students must read widely and deeply from among a broad range of high-quality, increasingly challenging literary and informational texts. Through extensive reading of stories, dramas, poems, and myths from diverse cultures and different time periods, students gain literary and cultural knowledge as well as familiarity with various text structures and elements. By reading texts in history/social studies, science, and other disciplines, students build a foundation of knowledge in these fields that will also give them the background to be better readers in all content areas. Students can only gain this foundation when the curriculum is intentionally and coherently structured to develop rich content knowledge within and across grades. Students also acquire the habits of reading independently and closely, which are essential to their future success.

Reading Standards for Literature K–5

Following are the standards for K–5, which relate to their College and Career Readiness counterparts by number. They offer a focus for instruction each year and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades.

Kindergartners:	Grade 1 students:	Grade 2 students:
Key Ideas and Details		
1. With prompting and support, ask and answer questions about details and events in a text.	**1.** Ask and answer questions about key details and events in a text.	**1.** Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details and events in a text.
2. Retell familiar stories.	**2.** Retell stories, demonstrating understanding of the central message or lesson.	**2.** Paraphrase stories, fables, folktales, or myths from diverse cultures and determine their lessons or morals.
3. Identify characters, settings, and key events in a story.	**3.** Describe characters, settings, and key events in a story.	**3.** Describe how characters in a story respond to key events and conflicts.
Craft and Structure		
4. Ask questions about unknown words in a text.	**4.** Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.	**4.** Identify words and phrases (e.g., regular beats, rhymes, and repeated lines) that supply rhythm and meaning in a story, poem, or song.
5. Recognize common types of texts (e.g., storybooks, poems).	**5.** Distinguish major categories of writing from each other (e.g., stories and poems), drawing on a wide reading of a range of text types.	**5.** Refer to core elements of stories, plays, and myths, including characters, settings, and plots, when writing or speaking about a specific text.
6. Name the author and illustrator of a text and define the role of each.	**6.** Identify who is speaking at various points in a story, myth, fable, or narrative poem.	**6.** Distinguish between characters by speaking in a different voice for each character when reading aloud.
Integration of Knowledge and Ideas		
7. Relate pictures and illustrations to the overall story in which they appear.	**7.** Use pictures, illustrations, and details in a story to describe characters, events, or settings.	**7.** Explain how images and illustrations contribute to and clarify a story.
8. (Not applicable to literature)	**8.** (Not applicable to literature)	**8.** (Not applicable to literature)
9. Compare and contrast the adventures of characters in familiar stories.	**9.** Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.	**9.** Compare and contrast characters or events from different stories addressing similar themes.
Range and Level of Text Complexity		
10. Read emergent-reader literature texts with purpose and understanding.	**10.** Read independently, proficiently, and fluently literature texts appropriately complex for grade 1.	**10.** Read literature independently, proficiently, and fluently within the grades 2–3 text complexity band; read texts at the high end of the range with scaffolding as needed.

Reading Standards for Literature K–5

Grade 3 students:	Grade 4 students:	Grade 5 students:
Key Ideas and Details		
1. Ask and answer questions to demonstrate understanding of a text, explicitly using the text as the basis for the answers.	**1.** Draw on details and examples from a text to support statements about the text.	**1.** Quote from a text to support statements about the text.
2. Use key supporting details in stories, fables, folktales, or myths from diverse cultures to determine the lessons or morals.	**2.** Summarize a text and derive a theme of a story, drama, or poem from details in the text.	**2.** Determine a theme of a text, drawing on how characters in a story respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
3. Describe the main characters in a story (e.g., their traits, motivations, or feelings) and explain how they contribute to the sequence of events.	**3.** Describe in detail a character, event, or setting, drawing on specific details in the text (e.g., from a character's thoughts, words, deeds, or interactions with others).	**3.** Compare and contrast two or more characters, events, or settings in a text, drawing on specific details.
Craft and Structure		
4. Interpret key words and phrases in a text, distinguishing literal from figurative language.	**4.** Understand words and phrases in a text that allude to significant characters found in mythology (e.g., *Herculean*), drawing on a wide reading of classic myths from a variety of cultures and periods.	**4.** Identify how metaphors and similes as well as rhymes and other repetitions of sounds (e.g., alliteration) supply meaning and rhythm in a specific verse or stanza of a poem.
5. Demonstrate understanding of common features of legends, myths, and folk- and fairytales (e.g., heroes and villains; quests or challenges) when writing or speaking about classic stories from around the world.	**5.** Explain major differences between poems and prose, and refer to the structural elements of poems (e.g., stanza, verse, rhythm, meter) when writing or speaking about specific poems.	**5.** Explain major differences between drama and prose stories, and refer to the structural elements of drama (e.g., casts of characters, setting descriptions, dialogue, stage directions, acts, scenes) when writing or speaking about specific works of dramatic literature.
6. Distinguish their own point of view from those of characters in a story.	**6.** Compare the point of view from which different stories are narrated, including the difference between first- and third-person narrations.	**6.** Identify how a narrator's perspective or point of view influences how events are described.
Integration of Knowledge and Ideas		
7. Use information from illustrations and other visual elements in a text with the words to develop an understanding of the setting, characters, and plot.	**7.** Integrate information from several illustrations and other visual elements in a text with the words to develop an understanding of how the setting and characters change and the plot develops.	7. Explain how images, sounds, and movements contribute to an animated or live-action adaptation of a story, comparing that version to what they "see" or "hear" from reading the text.
8. (Not applicable to literature)	**8.** (Not applicable to literature)	**8.** (Not applicable to literature)
9. Compare and contrast the plots, settings, and themes of stories written by the same author about the same or similar characters (e.g., in books from a series).	**9.** Compare and contrast thematically similar tales, myths, and accounts of events from various cultures.	**9.** Compare the treatment of similar ideas and themes (e.g., opposition of good and evil) as well as character types and patterns of events in myths and other traditional literature from different cultures.
Range and Level of Text Complexity		
10. Read literature independently, proficiently, and fluently within the grades 2–3 text complexity band; read "stretch" texts in the grades 4–5 text complexity band with scaffolding as needed.	**10.** Read literature independently, proficiently, and fluently in the grades 4–5 text complexity band; read texts at the high end of the range with scaffolding as needed.	**10.** Read literature independently, proficiently, and fluently within the grades 4–5 text complexity band; read "stretch" texts in the grades 6–8 text complexity band with scaffolding as needed.

Reading Standards for Informational Text K–5

Kindergartners:	Grade 1 students:	Grade 2 students:
Key Ideas and Details		
1. With prompting and support, ask and answer questions about information and events a text.	**1.** Ask and answer questions about key information and events in a text.	**1.** Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key information and events in a text.
2. Identify the main topic and main ideas of a text.	**2.** Identify the main topic, main ideas, and key details of a text.	**2.** Identify the main focus of a multiparagraph text as well as that of specific paragraphs within the text.
3. With prompting and support, describe the connection between two events or ideas in a text.	**3.** Describe the connection between two key events or ideas in a text.	**3.** Describe the connection between two or more historical events or scientific concepts in a text.
Craft and Structure		
4. Ask questions about unknown words in a text.	**4.** Learn and determine the meanings of words and phrases encountered in text relevant to a *grade 1 topic or subject area*.	**4.** Learn and determine the meanings of words and phrases encountered in text relevant to a *grade 2 topic or subject area*.
5. Locate basic information in a text.	**5.** Describe how a text groups information into general categories (e.g., cows, pigs, and horses are *farm animals*).	**5.** Know and use various text features (e.g., captions, headings, tables of contents, glossaries, indexes, electronic menus, icons) to locate key facts or information.
6. Name the author and illustrator of a text and define the role of each.	**6.** Distinguish between information provided by pictures or illustrations and that provided by the words in a text.	**6.** Identify the main purpose of a text, including what question the author aims to answer or what the author aims to explain or describe.
Integration of Knowledge and Ideas		
7. Relate pictures or illustrations to the overall text in which they appear.	**7.** Use pictures, illustrations, and details in a text to describe the key ideas.	**7.** Explain how images and illustrations contribute to and clarify a text.
8. With prompting and support, recognize cause-and-effect relationships in a text.	**8.** Identify cause-and-effect relationships in a text.	**8.** Describe how specific causes link key events or ideas together in a text.
9. With prompting and support, recognize basic similarities in and differences between two texts on the same topic (e.g., in illustrations or descriptions).	**9.** Identify similarities in and differences between two texts on the same topic (e.g., in illustrations or descriptions).	**9.** Describe similarities in and differences between two texts on the same topic.
Range and Level of Text Complexity		
10. Read emergent-reader informational texts with purpose and understanding.	**10.** Read independently, proficiently, and fluently informational texts appropriately complex for grade 1.	**10.** Read informational texts independently, proficiently, and fluently within the grades 2–3 text complexity band; read texts at the high end of the range with scaffolding as needed.

Reading Standards for Informational Text K–5

Grade 3 students:	Grade 4 students:	Grade 5 students:
Key Ideas and Details		
1. Ask and answer questions to demonstrate understanding of a text, explicitly using the text as the basis for the answers.	**1.** Draw on details and examples from a text to support statements about the text.	**1.** Quote from a text to support statements about the text.
2. Determine the main idea of a text and explain how it is supported by the key details.	**2.** Determine the main idea and supporting details of a text; summarize the text.	**2.** Determine two or more main ideas and how they are supported by details; summarize the text.
3. Describe the relationship between historical or scientific events or ideas in a text, using knowledge of connective devices that pertain to time, sequence, and cause and effect.	**3.** Describe the sequence of events in an historical or scientific account, including what happened and why, based on specific information in a text.	**3.** Explain the relationships between two or more historical events or scientific concepts by drawing on specific information from one or more texts.
Craft and Structure		
4. Learn and determine the meanings of general academic language and domain-specific words and phrases encountered in a text relevant to a *grade 3 topic or subject area*.	**4.** Learn and determine the meanings of general academic language and domain-specific words or phrases encountered in a text relevant to a *grade 4 topic or subject area*.	**4.** Learn and determine the meanings of general academic language and domain-specific words and phrases encountered in a text relevant to a *grade 5 topic or subject area*.
5. Use text features (e.g., bold print, key words, topic sentences, hyperlinks, electronic menus, icons) to locate information quickly and efficiently.	**5.** Use text features and search tools to locate and process information relevant to a given topic.	**5.** Describe how events, ideas, or information are organized (e.g., chronology, comparison, cause and effect) in a whole text or in part of a text.
6. Compare what is presented in a text with relevant prior knowledge and beliefs, making explicit what is new or surprising.	**6.** Compare an eyewitness account to a secondhand account of the same event or topic.	**6.** Analyze two accounts of the same event or topic and describe important similarities and differences in the details they provide.
Integration of Knowledge and Ideas		
7. Integrate information from illustrations and other visual elements (e.g., maps, photographs) in print and digital texts as an aid to understanding where, when, why, and how key events occur.	**7.** Interpret factual information presented graphically or visually (e.g., in charts, diagrams, time lines, animations, and interactive elements) and explain how the information contributes to understanding a print or digital text.	**7.** Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
8. Describe the logical connection between paragraphs and between sentences in a text (e.g., comparison, sequence, example).	**8.** Explain how an author uses evidence to support his or her claims in a text.	**8.** Explain how an author uses evidence to support his or her claims in a text, identifying what evidence supports which claim(s).
9. Compare and contrast information drawn from two texts on the same subject.	**9.** Describe how two or more texts on the same subject build on one another; provide a coherent picture of the information they convey.	**9.** Integrate information from several texts on the same subject in order to write or speak about the subject knowledgeably.
Range and Level of Text Complexity		
10. Read informational texts independently, proficiently, and fluently within the grades 2–3 text complexity band; read "stretch" texts in the grades 4–5 text complexity band with scaffolding as needed.	**10.** Read informational texts independently, proficiently, and fluently within the grades 4–5 text complexity band; read texts at the high end of the range with scaffolding as needed.	**10.** Read informational texts independently, proficiently, and fluently within the grades 4–5 text complexity band; read "stretch" texts in the grades 6–8 text complexity band with scaffolding as needed.

Reading Standards: Foundational Skills (K–3)

These standards are directed toward fostering students' understanding and working knowledge of concepts of print, the alphabetic principle, and other basic conventions of the English writing system. These Foundational Skills are not an end in and of themselves; rather, they are necessary and important components of an effective, comprehensive reading program designed to develop proficient readers with the capacity to comprehend texts across a range of types and disciplines.

Kindergartners:	Grade 1 students:
Print Concepts	
1. Demonstrate understanding of the organization and basic features of print. a. Identify the front cover, back cover, and title page of a book. b. Follow words from 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.	**1.** (Not applicable)
Phonological Awareness	
2. Demonstrate understanding of spoken words, syllables, and phonemes. a. Recite and produce rhyming words. b. Count, pronounce, blend, and segment syllables in spoken words. c. Count individual words in spoken phrases or simple sentences. d. Blend and segment consonants and rimes of spoken words (*/g/ - /oat/*, */bl/ - /ack/*). e. Demonstrate phonemic awareness by isolating and pronouncing the initial, medial vowel, and final phonemes (sounds) in three-phoneme (CVC) words (e.g., */save/*, */ham/*).[1] (This does not include CVCs ending with */l/*, */r/*, or */x/*.) f. Add or substitute individual phonemes in simple, one-syllable words to make new words (e.g., */at/* → */sat/* → */mat/* → */map/*).	**2.** Demonstrate understanding 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. Orally produce single-syllable words by blending phonemes, including consonant blends (e.g., */cats/*, */black/*, */blast/*). c. Isolate and pronounce initial, medial vowel, and final phonemes (sounds) in spoken single-syllable words (e.g., *f**a**st*, *f**a**st*, *fas**t***). d. Segment spoken single-syllable words into their complete sequence of individual phonemes (e.g., lap: /l/-/a/-/p/ → /f/-/l/-/a/-/p/).

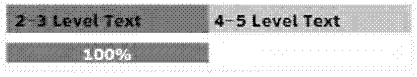
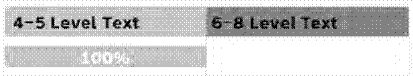
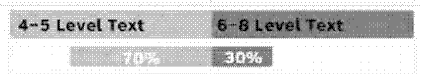
[1]Words, syllables, or phonemes written in /slashes/ refer to their pronunciation or phonology. Thus, /CVC/ is a word with three phonemes regardless of the number of letters in the spelling of the word.

Reading Standards: Foundational Skills (K–3)

Kindergartners:	Grade 1 students:	Grade 2 students:	Grade 3 students:
Phonics and Word Recognition			
3. 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. Associate the long and short sounds with the graphemes for the five major vowels. c. Read at least twenty-five very-high-frequency words by sight (e.g., *the*, *of*, *to*, *you*, *she*, *my*, *is*, *are*, *do*, *does*). d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ (e.g., ***b**at* vs. ***s**at*, *ca**t*** vs. *ca**n***, *hi**t*** vs. *ho**t***).	**3.** Know and apply grade-level phonics and word analysis skills in decoding words. a. Know the spelling-sound correspondences for common consonant digraphs (e.g., *-ll*, *-ck*, *wr-*, *sh*). b. Decode regularly spelled one-syllable words (e.g., *lock*, *much*, *see*, *rain*, *slide*, *bake*, *bring*). c. Know final *-e* (e.g., *take*, *side*) and common vowel team conventions (e.g., *rain*, *day*, *week*, *seat*, *road*, *show*) for representing long vowel sounds. d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. e. Decode two-syllable words following basic patterns (e.g., *rabbit*) by breaking the words into syllables. f. Read words with inflectional endings (e.g., *-s*, *-es*, *-ed*, *-ing*, *-er*, *-est*). g. Recognize and read grade-appropriate irregularly spelled words (e.g., *said*, *were*, *could*, *would*, *their*, *there*, *through*, *none*, *both*).	**3.** Know and apply grade-level phonics and word analysis skills in decoding words. a. Distinguish long and short vowels when reading regularly spelled one-syllable words (e.g., *hop* vs. *hope*, *men* vs. *mean*, *fell* vs. *feel*, *bend* vs. *bead*). b. Know spelling-sound correspondences for additional common vowel teams (e.g., *loud*, *cow*, *look*, *loop*, *boy*, *boil*). c. Decode regularly spelled two-syllable words with long vowels (e.g., *surprise*, *remain*, *needle*, *baby*, *paper*). d. Decode words with common prefixes and suffixes (e.g., *unhappy*, *carefully*, *goodness*, *unbutton*). e. Identify words with inconsistent but common spelling-sound correspondences (e.g., *heat* vs. *head*, *roll* vs. *doll*, *hint* vs. *hind*). f. Recognize and read grade-appropriate irregularly spelled words (e.g., *through*, *eyes*, *busy*, *ocean*, *island*, *people*).	**3.** 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*, *-less*, *-able*). b. Decode words with common Latin suffixes (e.g., *-tion/-sion*, *-ture*, *-tive/-sive*, *-ify*, *-ity*, *-ment*). c. Decode multisyllable words (e.g., *supper*, *chimpanzee*, *refrigerator*, *terrible*, *frightening*). d. Read grade-appropriate irregularly spelled words (e.g., *although*, *science*, *stomach*, *machine*).
Fluency			
4. Read with sufficient accuracy and fluency to support comprehension. a. Read emergent-reader texts with purpose and understanding.	**4.** Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	**4.** Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	**4.** Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

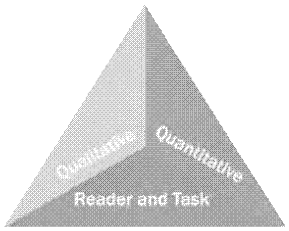
Range and Level of Text Complexity for Student Reading by Grade (Standard 10)

Students demonstrate proficiency in reading texts at the following ranges of text complexity to progress on a path to college and career readiness.

K	(See specific exemplars.)	
1		
2		**In grade 2**, students focus on reading texts independently in the grades 2–3 text complexity band, with scaffolding likely required for texts at the high end of the range.
3		**In grade 3**, students focus on reading texts independently in the grades 2–3 text complexity band (70 percent) and are introduced to texts in the grades 4–5 text complexity band as "stretch" texts (30 percent), which will likely require scaffolding.
4		**In grade 4**, students focus on reading texts independently in the grades 4–5 text complexity band, with scaffolding likely required for texts at the high end of the range.
5		**In grade 5**, students focus on reading independently in the grades 4–5 text complexity band (70 percent) and are introduced to texts in the grades 6–8 text complexity band as "stretch" texts (30 percent), which will likely require scaffolding.

Note: In any given classroom, the actual range of students' reading ability could be greater than the proposed range. Some students will require extra time and intense support and scaffolding to enable them to read grade-level material, whereas other students will be ready for—and should be encouraged to read—more advanced texts.

Measuring Text Complexity: Three Factors



Qualitative evaluation of the text: Levels of meaning, structure, language conventionality and clarity, and knowledge demands

Quantitative evaluation of the text: Readability measures and other scores of text complexity

Matching reader to text and task: Reader knowledge, motivation, and interests as well as the complexity generated by the tasks to be assigned and the questions to be posed

Note: More detailed information on text complexity and how it is measured is contained in Appendix A.

Range of Text Types for K–5

Students in K–5 apply the Reading standards to the following range of text types, with texts selected from a broad range of cultures and periods.

Literature			Informational Text
Stories	**Drama**	**Poetry**	**Literary Nonfiction, History/Social Studies, and Science and Technical Texts**
Includes children's adventure stories, folktales, legends, fables, fantasy, realistic fiction, and myth	Includes staged dialogue and brief familiar scenes	Includes nursery rhymes and the subgenres of the narrative poem, limerick, and free verse poem	Includes biographies and autobiographies; books about history, social studies, science, and the arts; and digital media sources on a range of topics

College and Career Readiness Standards for Writing

The K–5 standards on the following pages define what students should understand and be able to do in each grade and build toward the ten College and Career Readiness Standards.

Text Types and Purposes[1]

1. Write arguments to support a substantive claim with clear reasons and relevant and sufficient evidence.
2. Write informative/explanatory texts to convey complex information clearly and accurately through purposeful selection and organization of content.
3. Write narratives to convey real or imagined experiences, individuals, or events and how they develop over time.

Production and Distribution of Writing

4. Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience.
5. Strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.[2]
6. Use technology, including the Internet, to produce, publish, and interact with others about writing.

Research to Build Knowledge

7. Perform short, focused research projects as well as more sustained research in response to a focused research question, demonstrating understanding of the material under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate and cite the information while avoiding plagiarism.
9. Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned.

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.[3]

[1]These broad categories of writing include many subgenres. See Appendix A for definitions of key writing types.
[2]See "Conventions" in Language, pages 22–26, for specific editing expectations.
[3]This standard is measured by the proficiency of student writing products.

Note on range and content of student writing

To build a foundation for college and career readiness, students need to learn to use writing as a way of offering and supporting opinions, demonstrating understanding of the subjects they are studying, and conveying thoughts, feelings, and real and imaginary experiences. They learn to appreciate that a key purpose of writing is to communicate clearly to an external, sometimes unfamiliar audience, and they begin to adapt the form, content, and style of their writing to accomplish a particular purpose and task. They develop the capacity to build knowledge on a subject through research projects and to respond analytically to literary and informational sources. To meet these goals, students must devote significant time and effort to writing, producing numerous pieces over short and long time frames throughout the year.

Writing Standards K–5

Following are the standards for K–5, which relate to their College and Career Readiness counterparts by number. They offer a focus for instruction in each year to help ensure that students gain adequate exposure to a range of skills and applications. Growth in writing ability is characterized by an increasing sophistication in all aspects of language use, from vocabulary and syntax to the development and organization of ideas. At the same time, the content and sources that students address in their writing grow in demand every year.

Kindergartners:	Grade 1 students:	Grade 2 students:
Text Types and Purposes		
1. Use a combination of drawing, dictating, and writing to compose opinions in which they tell a reader the name of a book or the topic they are "writing" about and give an opinion about the topic (e.g., *My favorite book is . . .*).	**1.** Write opinions in which they introduce the topic or the name of the book they are writing about, state an opinion, and provide a reason for their opinion.	**1.** Write opinions in which they introduce the topic or book(s) directly, state an opinion, provide reasons and details to support opinions, use words to link opinions and reason(s) (e.g., *because*, *and*, *also*), and provide a sense of closure.
2. Use a combination of drawing, dictating, and writing to compose informative and explanatory texts in which they name what they are "writing" about and share some information about it.	**2.** Write informative and explanatory texts in which they name a topic, supply some facts relevant to the topic, and provide some sense of closure.	**2.** Write informative and explanatory texts in which they introduce a topic, use facts and definitions to develop points, present similar information together using headers to signal groupings when appropriate, and provide a concluding sentence or section.
3. Use a combination of drawing, dictating, and writing to narrate a single event or several loosely linked events, tell about the events in the order that they occurred, and provide a reaction to what happened.	**3.** Write narratives in which they include at least two or more appropriately sequenced events, use time cue words to signal event order, and provide some details and a sense of closure.	**3.** Write narratives in which they recount a well-elaborated event or series of events, use temporal words and phrases to signal event order, include details to tell what the narrator did, thought, and felt, and provide closure.
Production and Distribution of Writing		
4. (Begins in grade 3)	**4.** (Begins in grade 3)	**4.** (Begins in grade 3)
5. With guidance and support from adults, add details to strengthen writing as needed through revision.	**5.** With guidance and support from adults, add details to strengthen writing as needed through revision.	**5.** With guidance from adults, strengthen writing as needed by revising and editing.
6. (Begins in grade 2)	**6.** (Begins in grade 2)	**6.** With guidance from adults, use technology to produce writing.
Research to Build Knowledge		
7. (Begins in grade 1)	**7.** Participate in shared research and writing projects (e.g., exploring a number of books on a given topic).	**7.** Participate in shared research and writing projects (e.g., exploring a number of books on a given topic).
8. Gather information from experiences or provided text sources to answer a specific question.	**8.** Gather information from experiences or provided text sources to answer a specific question.	**8.** Gather information from experiences or provided text sources to answer a specific question.
9. (Begins in grade 4)	**9.** (Begins in grade 4)	**9.** (Begins in grade 4)
Range of Writing		
10. (Begins in grade 4)	**10.** (Begins in grade 4)	**10.** (Begins in grade 4)

Writing Standards K–5

Grade 3 students:	Grade 4 students:	Grade 5 students:
Text Types and Purposes		
1. Write opinions in which they: a. Introduce the topic or book(s) directly, state an opinion relative to the topic, and create an organizing structure that lists reasons. b. Provide reasons that support the opinion. c. Use appropriate words to link opinions and reason(s) (e.g., *because*, *therefore*, *in order to*, *since*, *for example*). d. Provide a sense of closure.	**1.** Write opinions in which they: a. Introduce an opinion about a concrete issue or topic and create an organizing structure where related ideas are grouped to support the writer's purpose. b. Provide reasons that are supported by facts and details. c. Link reasons and details together using words and phrases (e.g., *so*, *then*, *for instance*, *in addition*). d. Adopt an appropriate style for sharing and defending an opinion. e. Provide a concluding statement or section.	**1.** Write opinions in which they: a. Introduce an opinion about a concrete issue or topic and create an organizing structure where ideas are logically grouped to support the writer's purpose. b. Provide logically ordered reasons that are supported by facts and details. c. Link reasons and details together using words, phrases, and clauses (e.g., *consequently*, *generally*, *specifically*). d. Adopt an appropriate style for sharing and defending an opinion. e. Provide a concluding statement or section.
2. Write informative/explanatory pieces in which they: a. Introduce a topic and create an organizational structure that presents similar information together. b. Provide some details to develop points. c. Use linking words (e.g., *also*, *another*, *and*, *more*) to connect ideas within categories of information. d. Include a concluding sentence or section.	**2.** Write informative/explanatory pieces in which they: a. State the topic clearly and group related information in paragraphs and sections. b. Develop the topic using facts, concrete details, quotations, or other information and examples. c. Use appropriate links to join ideas within categories of information. d. Employ domain-specific vocabulary when appropriate. e. Provide a conclusion related to the information or explanation offered.	**2.** Write informative/explanatory pieces in which they: a. State the topic clearly, provide a general observation and focus, and group related information logically. b. Develop the topic using relevant facts, concrete details, quotations, or other information and examples. c. Use appropriate links to join ideas within and across categories of information. d. Employ domain-specific vocabulary and some technical terms when appropriate. e. Provide a conclusion related to the information or explanation offered.
3. Write narratives in which they: a. Establish a situation, introduce a narrator and/or characters, and organize an event sequence that unfolds naturally. b. Employ dialogue and descriptions of characters' actions, thoughts, and feelings. c. Use temporal words and phrases to signal event sequence. d. Provide a sense of closure.	**3.** Write narratives in which they: a. Orient the reader by establishing a situation, introduce a narrator and/or characters, and organize an event sequence that unfolds naturally. b. Use narrative techniques such as dialogue and description to develop events and show the characters' external behaviors and internal responses to events. c. Use a variety of temporal words and phrases to manage the sequence of events. d. Use concrete and sensory words and phrases to convey events and experiences precisely. e. Provide a satisfying conclusion that follows from the narrative's events.	**3.** Write narratives in which they: a. Engage and orient the reader by establishing a situation, introduce a narrator and/or characters, and create an organization that sequences events naturally and logically. b. Use narrative techniques such as dialogue, pacing, and description to develop events and show characters' external behaviors and internal responses. c. Use a variety of temporal words, phrases, and clauses to manage the sequence of events. d. Use well-chosen words and phrases to convey events and experiences precisely. e. Provide a satisfying conclusion that follows from the narrative's events.

Writing Standards K–5

Grade 3 students:	Grade 4 students:	Grade 5 students:
Production and Distribution of Writing		
4. (Begins in grade 4).	**4.** Produce coherent and clear writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Standards 1–3 above.)	**4.** Produce coherent and clear writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Standards 1–3 above.)
5. With guidance and support from peers and adults, strengthen writing as needed by revising and editing.	**5.** With guidance and support from peers and adults, strengthen writing as needed by planning, revising, and editing.	**5.** With guidance and support from peers and adults, strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. With guidance and support from adults, use technology to produce and publish writing.	**6.** With guidance and support from adults, use technology to produce, publish, and interact with others about writing.	**6.** With guidance and support from adults, use technology, including the Internet, to produce, publish, and interact with others about writing.
Research to Build Knowledge		
7. Perform short, focused research tasks that build knowledge about a topic.	**7.** Perform short, focused research tasks that build knowledge through investigation of different aspects of a single topic.	**7.** Perform short, focused research tasks that build knowledge through investigation of different aspects of a topic using several sources.
8. Gather information from experience as well as print and digital resources, take simple notes on sources, and sort evidence into provided categories.	**8.** Gather relevant information from experience as well as print and digital sources, take notes and categorize evidence, restate information in written text, and provide basic bibliographic information.	**8.** Gather relevant information from experience as well as print and digital sources; summarize or paraphrase information in notes and finished work, and provide basic bibliographic information.
9. (Begins in grade 4)	**9.** Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned: a. Apply *grade 4 reading standards* to informational texts (e.g., "Explain how an author uses evidence to support his or her claims in a text"). b. Apply *grade 4 reading standards* to literature (e.g., "Describe in detail a character, event, or setting, drawing on specific details in the text (e.g., from a character's thoughts, words, deeds, and interactions with others").	**9.** Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned: a. Apply *grade 5 reading standards* to informational texts (e.g., "Explain how an author uses evidence to support his or her claims in a text, identifying what evidence supports which claim(s)"). b. Apply *grade 5 reading standards* to literature (e.g., "Compare and contrast two or more characters, events, or settings in a text, drawing on specific details").
Range of Writing		
10. (Begins in grade 4)	**10.** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	**10.** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

College and Career Readiness Standards for Speaking and Listening

The K–5 standards on the following pages define what students should understand and be able to do in each grade and build toward the six College and Career Readiness Standards.

Comprehension and Collaboration

1. Participate effectively in a range of interactions (one-on-one and in groups), exchanging information to advance a discussion and to build on the input of others.
2. Integrate and evaluate information from multiple oral, visual, or multimodal sources in order to answer questions, solve problems, or build knowledge.
3. Evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric.

Presentation of Knowledge and Ideas

4. Present information, evidence, and reasoning in a clear and well-structured way appropriate to purpose and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating a command of formal English when indicated or appropriate.

Note on range and content of student speaking and listening

To build a foundation for college and career readiness, students must have ample opportunities to take part in a variety of rich, structured conversations—whole class, small group, and with a partner. Being productive members of these conversations requires that students contribute accurate, relevant information; respond to and develop what others have said; make comparisons and contrasts; and analyze and synthesize a multitude of ideas in various domains.

New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. Digital texts confront students with the potential for continually updated content and dynamically changing combinations of words, graphics, images, hyperlinks, and embedded video and audio.

Speaking and Listening Standards K–5

Following are the standards for K–5, which relate to their College and Career Readiness counterparts by number. They offer a focus for instruction in each year to help ensure that students gain adequate exposure to a range of skills and applications.

Kindergartners:	Grade 1 students:	Grade 2 students:
Comprehension and Collaboration		
1. Participate in conversations with peers and adults about *kindergarten topics and texts* being studied in class. a. Listen to others and take turns speaking. b. Continue a conversation through several exchanges.	**1.** Initiate and participate in conversations with peers and adults about *grade 1 topics and texts* being studied in class. a. Follow agreed-upon rules for discussions, such as listening to others, speaking one at a time, and gaining the floor in respectful ways. b. Respond to the comments of others through multiple exchanges. c. Ask questions to clear up confusion about a topic.	**1.** Engage in group discussions on *grade 2 topics and texts* being studied in class. a. Follow agreed-upon rules for discussions, such as listening to others, speaking one at a time, and gaining the floor in respectful ways. b. Stay on topic by linking their own additions to the conversation to the previous remarks of others. c. Ask for clarification and further explanation as needed. d. Extend their ideas and understanding in light of the discussions.
2. Confirm understanding of information presented orally or through media by asking and answering questions about key details.	**2.** Confirm understanding of information presented orally or through media by restating key elements and asking and answering questions about key details.	**2.** Retell key details or ideas presented orally or through media.
3. Ask questions to get information, seek help, or clarify something that is not understood.	**3.** Ask questions to get information, clarify something that is not understood, or gather additional information.	**3.** Ask and answer questions about information presented orally or visually in order to deepen their understanding or clarify comprehension.
Presentation of Knowledge and Ideas		
4. Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.	**4.** Describe familiar people, places, things, and events with relevant details, expressing ideas and feelings clearly.	**4.** Recount stories or experiences with appropriate facts and descriptive details.
5. (Begins in grade 4)	**5.** (Begins in grade 4)	**5.** (Begins in grade 4)
6. (Begins in grade 1)	**6.** Produce complete sentences when appropriate to task and situation, using correct verb tenses to convey a sense of past, present, and future. (See "Conventions" in Language, pages 22–26, for specific demands.)	**6.** Produce complete sentences when appropriate to task and situation to provide requested detail or clarification, ensuring subject-verb agreement and correct use of irregular plural nouns. (See "Conventions" in Language, pages 22–26, for specific demands.)

Speaking and Listening Standards K–5

Grade 3 students:	Grade 4 students:	Grade 5 students:
Comprehension and Collaboration		
1. Initiate and engage in group discussions on *grade 3 topics and texts* being studied in class. a. Follow agreed-upon rules for discussions and carry out assigned roles in small-group discussions. b. Pose relevant questions and link their own additions to the conversation to the previous remarks of others. c. Extend their ideas and understanding in light of the discussions.	**1.** Initiate and engage in group discussions on *grade 4 topics and texts* being studied in class. a. Come to discussions prepared, having read required material; in discussions, explicitly draw on that material and other information known about the topic. b. Pose and respond to questions as well as build on the ideas of previous speakers. c. Acknowledge new information provided by others and incorporate it into their own thinking as appropriate.	**1.** Initiate and engage in group discussions on *grade 5 topics and texts* being studied in class. a. Come to discussions prepared, having read the required material; in discussions, explicitly draw on that material and other information known about the topic. b. Respond to questions with elaboration, make comments that contribute to the topic, and build on the ideas of previous speakers. c. Ask questions to clarify or follow up on ideas or information presented orally or through media. d. Draw conclusions based on the ideas of others and incorporate them into their own thinking as appropriate.
2. Identify the main ideas and supporting details of information presented graphically, visually, orally, or multimodally.	**2.** Paraphrase the key information or ideas presented graphically, visually, orally, or multimodally.	**2.** Summarize the key ideas and supporting details presented graphically, visually, orally, or multimodally.
3. Ask and answer questions about presentations, offering appropriate elaboration and detail.	**3.** Identify the claims and supporting evidence used by a speaker or a presenter.	**3.** Summarize the claims made by a speaker or presenter and explain how each claim is supported with evidence.
Presentation of Knowledge and Ideas		
4. Report on a topic or recount stories or experiences with appropriate facts and descriptive details.	**4.** Report on events, topics, or texts in an organized manner, using appropriate, specific facts and descriptive details to support main ideas.	**4.** Report on events, topics, or texts in a focused, organized manner, sequencing ideas logically and using appropriate, specific facts, details, examples, or other information to develop main ideas.
5. (Begins in grade 4)	**5.** Incorporate visual displays and digital media into presentations when appropriate.	**5.** Incorporate visual displays and digital media into presentations when appropriate.
6. Speak coherently, employing a variety of tenses and ensuring subject-verb and pronoun-antecedent agreement. (See "Conventions" in Language, pages 22–26, for specific demands.)	**6.** Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See "Conventions" in Language, pages 22–26, for specific demands.)	**6.** Adapt speech to a variety of contexts and communicative tasks, using formal English when appropriate to task and situation. (See "Conventions" in Language, pages 22–26, for specific demands.)

College and Career Readiness Standards for Language

The K–5 standards on the following pages define what students should understand and be able to do in each grade and build toward the six College and Career Readiness Standards.

Conventions in Writing and Speaking

1. Demonstrate a command of the conventions of standard English grammar and usage.
2. Demonstrate a command of the conventions of capitalization, punctuation, and spelling.
3. Make effective choices about language, punctuation, and sentence structure for meaning and style.

Vocabulary Acquisition and Use

4. Determine the meaning of words and phrases encountered through conversations, reading, and media use.
5. Understand the nuances of and relationships among words.
6. Use grade-appropriate general academic vocabulary and domain-specific words and phrases purposefully acquired as well as gained through conversation and reading and responding to texts.

Note on range and content of student language use

To build a foundation for college and career readiness in language, students must gain control over many conventions of writing and speaking as well as acquire new words and understand those that they encounter through listening, reading, and media use. They must be able to determine the meaning of grade-appropriate words, come to appreciate that words have shadings of meaning and relationships to other words, and expand their vocabulary through conversation and (especially in later grades) through reading and by being taught words directly in the course of studying subject matter. The inclusion of Language standards in their own strand should not be taken as an indication that skills related to conventions and vocabulary are unimportant to reading, writing, speaking, and listening; indeed, they are

Language Standards K–5

Following are the standards for K–5, which relate to their College and Career Readiness counterparts by number. They offer a focus for instruction in each year to help ensure that students gain adequate exposure to a range of skills and applications.

Kindergartners:	Grade 1 students:	Grade 2 students:
Conventions in Writing and Speaking		
1. Observe conventions of grammar and usage. a. Print most upper- and lowercase letters. b. Write a letter or letters for most consonant and short-vowel sounds (phonemes). c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., *dog*, *dogs*; *wish*, *wishes*) when speaking. d. Understand and use the most frequently occurring prepositions in English (e.g., *to/from*, *in/out*, *on/off*, *for*, *of*, *by*, *with*) when speaking. e. Produce and expand complete sentences in shared language and writing activities. f. Understand and use question words (e.g., *who*, *what*, *where*, *when*, *why*, *how*) in discussions.	**1.** Observe conventions of grammar and usage. a. Print all upper- and lowercase letters. b. Use singular and plural nouns with matching verbs in simple sentences (e.g., *He hops*; *We hop*). c. Use subject, object, and possessive pronouns in speaking and writing (e.g., *I*, *me*, *my*; *they*, *them*, *their*). d. Use verbs to convey a sense of past, present, and future in writing and speaking (e.g., *Yesterday I walked home*; *Today I walk home*; *Tomorrow I will walk home*). e. Understand and use frequently occurring prepositions in English (e.g., *during*, *beyond*, *toward*). f. Produce and expand complete declarative, interrogative, imperative, and exclamatory sentences in response to questions and prompts. g. Understand that, minimally, every sentence must be about something (the subject) and tell something (the predicate) about its subject.	**1.** Observe conventions of grammar and usage. a. Form common irregular plural nouns (e.g., *feet*, *children*, *teeth*, *mice*, *fish*). b. Form the past tense of common irregular verbs (e.g., *sat*, *hid*, *told*). c. Produce and expand complete declarative, interrogative, imperative, and exclamatory sentences. d. Produce and expand complete sentences to provide requested detail or clarification.
2. Observe conventions of capitalization, punctuation, and spelling. a. Capitalize the first word in a sentence and the pronoun *I*. b. Name and identify end punctuation, including periods, question marks, and exclamation points. c. Spell simple words phonetically using knowledge of sound-letter relationships.	**2.** Observe conventions of capitalization, punctuation, and spelling. a. Capitalize names, places, and dates. b. Use end punctuation for sentences, including periods, question marks, and exclamation points. c. Use commas in dates and to separate single words in a series. d. Use conventional spelling for words with common spelling patterns and for common irregular words. e. Use phonetic spellings for untaught words, drawing on phonemic awareness and spelling conventions. f. Form new words through addition, deletion, and substitution of sound and letters (e.g., *an* → *man* → *mat* → *mast* → *must* → *rust* → *crust*).	**2.** Observe conventions of capitalization, punctuation, and spelling. a. Capitalize holidays, product names, geographic names, and important words in titles. b. Use commas in greetings and closings of letters. c. Use apostrophes to form contractions and common possessives. d. Generalize learned spelling patterns when writing words (e.g., *cage* → *badge*; *boy* → *boil*; *paper* → *copper*). e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.
3. (Begins in grade 3)	**3.** (Begins in grade 3)	**3.** (Begins in grade 3)

Kindergartners:	Grade 1 students:	Grade 2 students:
Vocabulary Acquisition and Use		
4. Determine word meanings (*based on kindergarten reading*). a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. b. Identify new meanings for familiar words and apply them accurately (e.g., knowing *duck* as a bird and learning the verb *to duck*). c. Use the most common affixes in English (e.g., *-ed*, *-s*, *re-*, *un-*, *pre-*, *-ful*, *-less*) as a clue to the meaning of an unknown word.	**4.** Determine word meanings (*based on grade 1 reading*). a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent. b. Use sentence-level context as a clue to the meaning of an unknown word. c. Use common affixes in English as a clue to the meaning of an unknown word. d. 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). e. Demonstrate understanding of the concept of multiple-meaning words (e.g., *match*, *kind*, *play*) by identifying meanings of some grade-appropriate examples of such words.	**4.** Determine word meanings (*based on grade 2 reading*). a. Determine or clarify the meaning of unknown or multiple-meaning words through the use of one or more strategies, such as understanding how the word is used in a sentence; analyzing the word's sounds, spelling, and meaningful parts; and consulting glossaries or beginning dictionaries, both print and digital. b. Explain the meaning of grade-appropriate compound words (e.g., *birdhouse*, *lighthouse*, *housefly*; *bookshelf*, *notebook*, *bookmark*). c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *addition*, *additional*). d. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., *happy / unhappy*, *tell / retell*).
5. Understand word relationships. a. Build real-life connections between words and their use (e.g., note places at school that are *colorful*). b. Distinguish shades of meaning among verbs describing the same general action (e.g., *walk*, *march*, *strut*, *prance*) by acting out the meanings. c. Use common adjectives to distinguish objects (e.g., the *small blue* square; the *shy white* rabbit). d. Demonstrate understanding of common verbs and adjectives by relating them to their opposites (antonyms).	**5.** Understand word relationships. a. Build real-life connections between words and their use (e.g., note places at home that are *cozy*). b. Distinguish shades of meaning among verbs differing in manner (e.g., *look*, *peek*, *glance*, *stare*, *glare*, *scowl*) and adjectives differing in intensity (e.g., *large*, *gigantic*) by defining, choosing, or acting out the meanings.	**5.** Understand word relationships. a. Build real-life connections between words and their use (e.g., describe foods that are *spicy* or *juicy*). b. Distinguish shades of meaning among related verbs (e.g., *toss*, *throw*, *hurl*) and related adjectives (e.g., *thin*, *slender*, *skinny*, *scrawny*).
6. Use newly learned words acquired through conversations, reading, and responding to texts.	**6.** Use newly learned words acquired through conversations, reading, and responding to texts.	**6.** Use newly learned words acquired through conversations, reading, and responding to texts.

Grade 3 students:	Grade 4 students:	Grade 5 students:
Conventions in Writing and Speaking		
1. Observe conventions of grammar and usage. a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in specific sentences. b. Form and use the simple (e.g., *I walked*, *I walk*, *I will walk*) verb tenses. c. Ensure subject-verb and pronoun-antecedent agreement.* d. Produce simple, compound, and complex sentences.	**1.** Observe conventions of grammar and usage. a. Form and use the progressive (e.g., *I was walking*, *I am walking*, *I will be walking*) verb aspects. b. Form and use adjectives and adverbs (including comparative and superlative forms), placing them appropriately within sentences.* c. Produce complete sentences, avoiding rhetorically poor fragments and run-ons.* d. Correctly use frequently confused words (e.g., *to*, *too*, *two*; *there*, *their*).*	**1.** Observe conventions of grammar and usage. a. Form and use the perfect (e.g., *I had walked*, *I have walked*, *I will have walked*) verb aspects. b. Recognize and correct inappropriate shifts in verb tense and aspect.*
2. Observe conventions of capitalization, punctuation, and spelling. a. Use correct capitalization. b. Use quotation marks in dialogue. c. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting*, *smiled*, *cries*, *happiness*). d. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words. e. Consult reference materials, including dictionaries, as needed to check and correct spellings.	**2.** Observe conventions of capitalization, punctuation, and spelling. a. Use quotation marks to mark direct speech and quotations from a text. b. Spell grade-appropriate words correctly, consulting references as needed.	**2.** Observe conventions of capitalization, punctuation, and spelling. a. Use punctuation to separate items in a series.* b. Use a comma to separate an introductory element from the rest of the sentence. c. Use underlining, quotation marks, or italics to indicate titles of works. d. Spell grade-appropriate words correctly, consulting references as needed.
3. Make effective language choices. a. Use words for effect.*	**3.** Make effective language choices. a. Use punctuation for effect.* b. Maintain consistency in style and tone.* c. Choose words and phrases to convey ideas precisely.*	**3.** Make effective language choices. a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.*

* Conventions standards noted with an asterisk (*) need to be revisited by students in subsequent grades as their writing and speaking grows in sophistication. See chart on page 27 for a complete listing.

Grade 3 students:	Grade 4 students:	Grade 5 students:
Vocabulary Acquisition and Use		
4. Determine word meanings (*based on grade 3 reading*). a. Determine or clarify the meaning of unknown or multiple-meaning words through the use of one or more strategies, such as understanding how the word is used in a sentence; analyzing the word's sounds, spelling, and meaningful parts; and consulting glossaries or beginning dictionaries, both print and digital. b. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *company*, *companion*). c. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable*, *comfortable/uncomfortable*, *care/careless*, *heat/preheat*). d. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., *take steps*).	**4.** Determine word meanings (*based on grade 4 reading*). a. Determine or clarify the meaning of unknown or multiple-meaning words through the use of one or more strategies, such as using semantic clues (e.g., definitions, examples, or restatements in text); using syntactic clues (e.g., the word's position or function in the sentence); analyzing the word's sounds, spelling, and meaningful parts; and consulting reference materials, both print and digital. b. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *telegraph*, *photograph*, *autograph*). c. Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*). d. Paraphrase common idioms, adages, and proverbs.	**4.** Determine word meanings (*based on grade 5 reading*). a. Determine or clarify the meaning of unknown or multiple-meaning words through the use of one or more strategies, such as using semantic clues (e.g., definitions, examples, or restatements in text); using syntactic clues (e.g., the word's position or function in the sentence); analyzing the word's sounds, spelling, and meaningful parts; and consulting reference materials, both print and digital. b. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., *photograph*, *photosynthesis*). c. Interpret figurative language, including similes and metaphors. d. Explain the meaning of common idioms, adages, and proverbs.
5. Understand word relationships. a. Build real-life connections between words and their use (e.g., describe people who are *friendly* or *helpful*). b. Distinguish among related words that describe states of mind or degrees of certainty (e.g., *knew*, *believed*, *suspected*, *heard*, *wondered*).	**5.** Understand word relationships. a. Build real-life connections between words and their various uses and meanings. b. Define relationships between words (e.g., how *ask* is like and unlike *demand*; what items are likely to be *enormous*). c. Distinguish a word from other words with similar but not identical meanings (synonyms).	**5.** Understand word relationships. a. Build real-life connections between words and their various uses and meanings. b. Define relationships between words (e.g., how *smirk* is like and unlike *smile*; what items are likely to be *vast*). c. Distinguish a word from other words with similar but not identical meanings (synonyms).
6. Use words that are in common, conversational vocabulary as well as grade-appropriate academic vocabulary and domain-specific words (in English language arts, history/social studies, and science) taught directly and acquired through reading and responding to texts.	**6.** Use grade-appropriate general academic vocabulary and domain-specific words and phrases (in English language arts, history/social studies, and science) taught directly and acquired through reading and responding to texts.	**6.** Use grade-appropriate general academic vocabulary and domain-specific words and phrases (in English language arts, history/social studies, and science) taught directly and acquired through reading and responding to texts.

English Language Arts Conventions Progressive Skills, By Standard

The following, marked with an asterisk (*) in the Conventions standards, are skills and understandings that require continued attention in higher grades (after their introduction in the grade listed below) as they are applied to increasingly sophisticated writing and speaking.

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grades 9–10
1c. Ensure subject-verb and pronoun-antecedent agreement. **3a.** Choose words for effect.						
	1b. Form and use adjectives and adverbs (including comparative and superlative forms), placing them appropriately within sentences. **1c.** Produce complete sentences, avoiding rhetorically poor fragments and run-ons. **1d.** Correctly use frequently confused words (e.g., *effect/affect*, *to/too/two*). **3a.** Use punctuation for effect. **3b.** Maintain consistency in style and tone. **3c.** Choose words and phrases to convey ideas precisely.					
		1b. Recognize and correct inappropriate shifts in verb tense and aspect. **2a.** Use punctuation to separate items in a series. **3a.** Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.				
			1b. Recognize and correct inappropriate shifts in pronoun number and person. **1c.** Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents). **2a.** Use commas, parentheses, or dashes to set off nonrestrictive/parenthetical elements. **3a.** Vary sentence patterns for meaning, reader/listener interest, and style.			
				1c. Place phrases and clauses within a sentence, avoiding misplaced and dangling modifiers. **3b.** Choose words and phrases that express ideas concisely, eliminating wordiness and redundancy.		
					1c. Recognize and correct inappropriate shifts in verb voice and mood.	
						1a. Use parallel structure in writing.

* Read-aloud
** Read-along

Texts Illustrating the Complexity, Quality, and Range of Student Reading K–5

	Literature: Stories, Drama, Poetry	Informational Texts: Literary Nonfiction, History/Social Studies, Science/Technical Texts
K[1]	▪ *Over in the Meadow* by John Langstaff (traditional) (c1800)* ▪ *A Boy, a Dog, and a Frog* by Mercer Mayer (1967) ▪ *Pancakes for Breakfast* by Tomie DePaola (1978) ▪ *A Story A Story* by Gail E. Haley (1970)* ▪ *Kitten's First Full Moon* by Kevin Henkes (2004)*	▪ *My Five Senses* by Aliki (1962)* ▪ *Truck* by Donald Crews (1980) ▪ *I Read Signs* by Tana Hoban (1987) ▪ *What Do You Do With a Tail Like This?* by Steve Jenkins & Robin Page (2003)* ▪ *Amazing Whales!* by Sarah L. Thomson (2005)*
1	▪ "Mix a Pancake" by Christina G. Rossetti (1893)** ▪ *Mr. Popper's Penguins* by Richard Atwater (1938)* ▪ *Little Bear* by Else Holmelund Minarik, illustrated by Maurice Sendak (1957)** ▪ *Frog and Toad Together* by Arnold Lobel (1971)** ▪ *Hi! Fly Guy* by Tedd Arnold (2006)	▪ *A Tree Is a Plant* by Clyde Robert Bulla, illustrated by Stacey Schuett (1960)** ▪ *My Five Senses* by Aliki (1962)** ▪ *Follow the Water from Brook to Ocean* by Arthur Dorros (1991)** ▪ *From Seed to Pumpkin* by Wendy Pfeffer, illustrated by James Graham Hale (2004)* ▪ *How People Learned to Fly* by Fran Hodgkins and True Kelley (2007)*
2–3	▪ "Who Has Seen the Wind?" by Christina G. Rossetti (1893) ▪ *Charlotte's Web* by E. B. White (1952)* ▪ *Sarah, Plain and Tall* by Patricia MacLachlan (1985) ▪ *Tops and Bottoms* by Janet Stevens (1995) ▪ *Poppleton in Winter* by Cynthia Rylant, illustrated by Mark Teague (2001)	▪ *A Medieval Feast* by Aliki (1983) ▪ *From Seed to Plant* by Gail Gibbons (1991) ▪ *The Story of Ruby Bridges* by Robert Coles (1995)* ▪ *A Drop of Water: A Book of Science and Wonder* by Walter Wick (1997) ▪ *Moonshot: The Flight of Apollo 11* by Brian Floca (2009)
4–5	*Alice's Adventures in Wonderland* by Lewis Carroll (1865) "Casey at the Bat" by Ernest Lawrence Thayer (1888) *The Black Stallion* by Walter Farley (1941) "Zlateh the Goat" by Isaac Bashevis Singer (1984) ▪ *Bud, Not Buddy* by Christopher Paul Curtis (1999) ▪ *The Birchbark House* by Louise Erdrich (1999) ▪ *Where the Mountain Meets the Moon* by Grace Lin (2009)	▪ *Discovering Mars* by Melvin Berger (1992) ▪ *Hurricanes: Earth's Mightiest Storms* by Patricia Lauber (1996) ▪ *A History of US* by Joy Hakim (2005) ▪ *Horses* by Seymour Simon (2006) ▪ *Quest for the Tree Kangaroo: An Expedition to the Cloud Forest of New Guinea* by Sy Montgomery (2006)

Note: Given space limitations, the illustrative texts listed above are meant only to show individual titles that are representative of a wide range of topics and genres. (See Appendix B for excerpts of these and other texts illustrative of K 5 text complexity.) At a curricular or instructional level, within and across grade levels, texts need to be selected around topics or themes that generate knowledge and allow students to study that topic in depth. On the next page is an example of progressions of texts building knowledge across grade levels.

[1]Children at the kindergarten and grade 1 levels should be expected to read texts independently that have been specifically written to correlate to their reading level and their word knowledge. Many of the titles listed above are meant to supplement carefully structured independent reading with books to read along with a teacher or that are read aloud to students to build knowledge and cultivate a joy in reading.

Staying on Topic Within a Grade and Across Grades: How to Build Knowledge Systematically in English Language Arts K–5

Building knowledge systematically in English language arts is like giving children various pieces of a puzzle in each grade that, over time, will form one big picture. At a curricular or instructional level, texts—within and across grade levels—need to be selected around topics or themes that systematically develop the knowledge base of students. Within a grade level, there should be an adequate number of titles on a single topic that would allow children to study that topic for a sustained period. The knowledge children have learned about particular topics in early grade levels should then be expanded and developed in subsequent grade levels to ensure an increasingly deeper understanding of these topics. Children in the upper elementary grades will generally be expected to read these texts independently and reflect on them in writing. However, children in the early grades (particularly K–2) should participate in rich, structured conversations with an adult in response to the written texts that are read aloud, *orally* comparing and contrasting as well as analyzing and synthesizing, in the manner called for by the *Standards*.

Preparation for reading complex informational texts should begin at the very earliest elementary school grades. What follows is one example that uses domain-specific nonfiction titles across grade levels to illustrate how curriculum designers and classroom teachers can infuse the English language arts block with rich, age-appropriate content knowledge and vocabulary in history/social studies, science, and the arts. Having students listen to informational read-alouds in the early grades helps lay the necessary foundation for students' reading and understanding of increasingly complex texts on their own in subsequent grades.

Exemplar Texts on a Topic Across Grades	K	1	2–3	4–5
The Human Body Students can begin learning about the human body starting in kindergarten and then review and extend their learning during each subsequent grade.	The five senses and associated body parts ▪ *My Five Senses* by Aliki (1989) ▪ *Hearing* by Maria Rius (1985) ▪ *Sight* by Maria Rius (1985) ▪ *Smell* by Maria Rius (1985) ▪ *Taste* by Maria Rius (1985) ▪ *Touch* by Maria Rius (1985) Taking care of your body: Overview (hygiene, diet, exercise, rest) ▪ *My Amazing Body: A First Look at Health & Fitness* by Pat Thomas (2001) ▪ *Get Up and Go!* by Nancy Carlson (2008) ▪ *Go Wash Up* by Doering Tourville (2008) ▪ *Sleep* by Paul Showers (1997) ▪ *Fuel the Body* by Doering Tourville (2008)	Introduction to the systems of the human body and associated body parts ▪ *Under Your Skin: Your Amazing Body* by Mick Manning (2007) ▪ *Me and My Amazing Body* by Joan Sweeney (1999) ▪ *The Human Body* by Gallimard Jeunesse (2007) ▪ *The Busy Body Book* by Lizzy Rockwell (2008) ▪ *First Encyclopedia of the Human Body* by Fiona Chandler (2004) Taking care of your body: Germs, diseases, and preventing illness ▪ *Germs Make Me Sick* by Marilyn Berger (1995) ▪ *Tiny Life on Your Body* by Christine Taylor-Butler (2005) ▪ *Germ Stories* by Arthur Kornberg (2007) ▪ *All About Scabs* by GenichiroYagu (1998)	Digestive and excretory systems ▪ *What Happens to a Hamburger* by Paul Showers (1985) ▪ *The Digestive System* by Christine Taylor-Butler (2008) ▪ *The Digestive System* by Rebecca L. Johnson (2006) ▪ *The Digestive System* by Kristin Petrie (2007) Taking care of your body: healthy eating and nutrition ▪ *Good Enough to Eat* by Lizzy Rockwell (1999) ▪ *Showdown at the Food Pyramid* by Rex Barron (2004) Muscular, skeletal, and nervous systems ▪ *The Mighty Muscular and Skeletal Systems* Crabtree Publishing (2009) ▪ *Muscles* by Seymour Simon (1998) ▪ *Bones* by Seymour Simon (1998) ▪ *The Astounding Nervous System* Crabtree Publishing (2009) ▪ *The Nervous System* by Joelle Riley (2004)	Circulatory system ▪ *The Heart* by Seymour Simon (2006) ▪ *The Heart and Circulation* by Carol Ballard (2005) ▪ *The Circulatory System* by Kristin Petrie (2007) ▪ *The Amazing Circulatory System* by John Burstein (2009) Respiratory system ▪ *The Lungs* by Seymour Simon (2007) ▪ *The Respiratory System* by Susan Glass (2004) ▪ *The Respiratory System* by Kristin Petrie (2007) ▪ *The Remarkable Respiratory System* by John Burstein (2009) Endocrine system ▪ *The Endocrine System* by Rebecca Olien (2006) ▪ *The Exciting Endocrine System* by John Burstein (2009)

Standards for English Language Arts

6–12

College and Career Readiness Standards for Reading

The grades 6–12 standards on the following pages define what students should understand and be able to do in each grade and build toward the ten College and Career Readiness Standards.

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze in detail how, when, why, and how events, ideas, and characters develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and explain how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section or chapter) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Synthesize and apply information presented in diverse ways (e.g., through words, images, graphs, and video) in print and digital sources in order to answer questions, solve problems, or compare modes of presentation.[1]
8. Delineate and evaluate the reasoning and rhetoric within a text, including assessing whether the evidence provided is relevant and sufficient to support the text's claims.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range and Level of Text Complexity

10. Read complex texts independently, proficiently, and fluently, sustaining concentration, monitoring comprehension, and, when useful, rereading.[2]

[1]Please see "Research to Build Knowledge" in Writing and "Comprehension and Collaboration" in Speaking and Listening for additional standards relevant to gathering, assessing, and applying information from print and digital sources.
[2]Proficiency in this standard is measured by students' ability to read a range of appropriately complex text in each grade as defined on page 36.

Note on range and content of student reading

To become college and career ready, students must grapple with works of exceptional craft and thought whose range extends across genres, cultures, and centuries. Such works offer profound insights into the human condition and serve as models for students' own thinking and writing. Along with high-quality contemporary works, these texts should be chosen from among the founding U.S. documents, the classics of American literature, and the timeless dramas of Shakespeare. Through wide and deep reading of literature and literary nonfiction of steadily increasing sophistication, students gain a reservoir of literary and cultural knowledge, references, and images; the ability to evaluate intricate arguments; and the capacity to surmount the challenges posed by complex texts.

Reading Standards for Literature 6–12

Following are the standards for grades 6–12, which relate to their College and Career Readiness counterparts by number. They offer a focus for instruction each year and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades.

Grade 6 students:	Grade 7 students:	Grade 8 students:
Key Ideas and Details		
1. Cite specific textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	**1.** Cite several sources of textual evidence when useful to support analysis of what the text says explicitly as well as inferences drawn from the text.	**1.** Cite a wide range of evidence throughout the text when useful to support analysis of what the text says explicitly as well as inferences drawn from the text.
2. Analyze how a theme or central idea develops over the course of a text, drawing on key details.	**2.** Analyze how two or more themes or central ideas in a text relate to one another, drawing on key details.	**2.** Analyze how recurring images or events contribute to the development of a theme or central idea in a text.
3. Describe how a story's plot unfolds (in a series of episodes or as a problem to be solved) as well as how characters adapt or change as they move toward a resolution.	**3.** Analyze how particular lines of dialogue or specific incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.	**3.** Analyze how elements of a story or drama interact (e.g., how plot and setting are integral to one another; how the setting affects characters).
Craft and Structure		
4. Interpret the figurative and connotative meanings of words and phrases as they are used in a text.	**4.** Interpret the figurative and connotative meanings of words and phrases as they are used in a text and describe in detail a specific word choice and its impact on meaning and tone.	**4.** Explain the comparisons an author makes through metaphors, allusions, or analogies in a text and analyze how those comparisons contribute to meaning.
5. Explain the effect of such devices as flashbacks and foreshadowing on the development of the plot and meaning of a text.	**5.** Describe how any given sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the plot or themes.	**5.** Compare a poem with a conventional structure, such as a sonnet, to a poem without a proscribed structure, such as a free verse poem.
6. Describe how an author establishes the point of view of the speaker or a character in a poem, drama, or story.	**6.** Analyze how an author presents the points of view of different characters in a story or drama, including their different reactions to the same person or event(s).	**6.** Explain how a difference in the perspective or knowledge of characters and the audience (e.g., created through the device of dramatic irony) produces suspense or humor.
Integration of Knowledge and Ideas		
7. Analyze how illustrations, diagrams, multimedia elements, and words contribute to the meaning and tone of a print or digital text (e.g., graphic novel, multimedia presentation of fiction).	**7.** Compare and contrast a text to its filmed, staged, or multimedia version, including examining some techniques unique to each medium (e.g., lighting, sound, color, camera focus and angles).	**7.** Analyze to what degree a filmed or live production of a drama or story stays faithful to or departs from the script or text.
8. (Not applicable to literature)	**8.** (Not applicable to literature)	**8.** (Not applicable to literature)
9. Analyze stories in the same genre (e.g., mysteries, adventure stories), comparing and contrasting their approaches to similar themes and topics.	**9.** Analyze a specific case in which a modern work of fiction draws on patterns of events or character types found in traditional literature (e.g., the hero, the quest).	**9.** Compare a fictional portrayal of a time, place, or character to historical sources from the same period as a means of understanding how authors use or alter history.
Range and Level of Text Complexity		
10. Read literature independently, proficiently, and fluently in the grades 6–8 text complexity band; read texts at the high end of the range with scaffolding as needed.	**10.** Read literature independently, proficiently, and fluently in the grades 6–8 text complexity band; read "stretch" texts in the grades 9–10 text complexity band with scaffolding as needed.	**10.** Read literature independently, proficiently, and fluently in the grades 6–8 text complexity band; engage in sustained practice with "stretch" texts in the grades 9–10 text complexity band with scaffolding as needed.

Reading Standards for Literature 6–12

Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details	
1. Cite the evidence in the text that most strongly supports a specific analysis of what the text says explicitly as well as inferences drawn from the text.	**1.** Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves things uncertain.
2. Analyze in detail the development and refinement of a theme or central idea in a text, including how it emerges and how it is shaped and refined by specific details.	**2.** Analyze how multiple themes or central ideas in a text interact, build on, and, in some cases, conflict with one another.
3. Analyze how complex characters, including those with conflicting motivations or divided loyalties, develop over the course of a text, interact with other characters, and advance the plot or develop the theme.	**3.** Analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed).
Craft and Structure	
4. Evaluate how an author's use of language, including formality of diction, shapes meaning and tone in a text (e.g., how the language evokes a sense of time and place, how it sets a formal or informal tone).	**4.** Analyze in detail the condensed language of poems (or particularly rich language use in a narrative or drama), determining how specific word choices and multiple meanings shape the impact and tone.
5. Analyze how an author structures a text, orders events within it (e.g., parallel plots), and manipulates time (e.g., pacing) to create mystery, tension, or surprise.	**5.** Analyze how an author's choices concerning how to structure a text (e.g., electing at what point to begin or end a story) shape the meaning of the text.
6. Analyze a case in which the author's work takes a position or stance on a social issue or other topic and describe how the author carries out that purpose.	**6.** Analyze an author's use of satire, sarcasm, irony, understatement, or other means that requires a reader to understand various layers of meaning in a text.
Integration of Knowledge and Ideas	
7. Compare and contrast the representation of a subject or a key scene in two different artistic mediums (e.g., Auden's "Musée de Beaux Arts" and Breughel's *Landscape with the Fall of Icarus*).	**7.** Compare and contrast multiple interpretations of a drama or story (e.g., recorded or live productions), distinguishing how each version interprets the source text. (This includes at least one play by Shakespeare as well as one play by an American dramatist.)
8. (Not applicable to literature)	**8.** (Not applicable to literature)
9. Analyze a wide range of nineteenth- and early-twentieth-century foundational works of American literature, comparing and contrasting approaches to similar ideas or themes in two or more texts from the same period.	**9.** Analyze how an author draws on and transforms fictional source material in a specific work (e.g., how Shakespeare draws on a story from Ovid or how a later author draws on a play by Shakespeare).
Range and Level of Text Complexity	
10. **In grade 9**, read literature independently, proficiently, and fluently in the grades 9–10 text complexity band; read texts at the high end of the range with scaffolding as needed. **In grade 10**, read literature independently, proficiently, and fluently in the grades 9–10 text complexity band; read "stretch" texts in the grades 11–CCR text complexity band with scaffolding as needed.	**10.** **In grade 11**, read literature independently, proficiently, and fluently in the grades 11–CCR text complexity band; read texts at the high end of the range with scaffolding as needed. **In grade 12**, read literature independently, proficiently, and fluently in the grades 11–CCR text complexity band; read "stretch" texts in the Beyond CCR text complexity band with scaffolding as needed.

Reading Standards for Informational Text 6–12

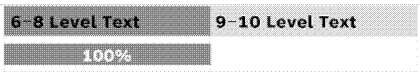
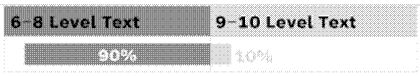
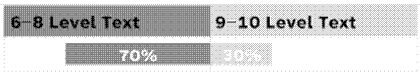
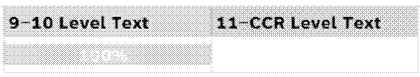
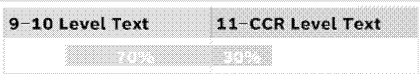
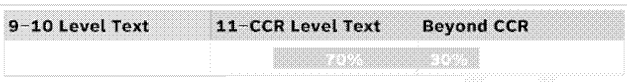
Grade 6 students:	Grade 7 students:	Grade 8 students:
Key Ideas and Details		
1. Cite specific textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	**1.** Cite several sources of textual evidence when useful to support analysis of what the text says explicitly as well as inferences drawn from the text.	**1.** Cite a wide range of evidence throughout the text when useful to support analysis of what the text says explicitly as well as inferences drawn from the text.
2. Analyze how a central idea develops over the course of a text, drawing on key details.	**2.** Analyze how two or more central ideas in a text relate to one another, drawing on key details.	**2.** Provide an objective summary of a text, accurately conveying an author's view and specific points.
3. Determine the causes or reasons that link different events, ideas, or information in a text, drawing on key details.	**3.** Describe in detail how an author introduces, illustrates, and elaborates a key idea in a text (e.g., through examples or anecdotes).	**3.** Analyze how an author introduces, illustrates, and elaborates two or more significant ideas in a text, including how the relationship between the ideas is expressed.
Craft and Structure		
4. Interpret words and phrases as they are used in a text, including technical, figurative, and connotative meanings, and analyze how an author's choice of specific words in a text contributes to understanding the ideas or concepts.	**4.** Interpret words and phrases as they are used in a text, including technical, figurative, and connotative meanings, and describe in detail how an author's choice of specific words affects meaning and tone.	**4.** Explain the comparisons an author makes through metaphors, allusions, and analogies in a text and analyze how those comparisons contribute to meaning.
5. Describe the structure an author uses to organize a specific text, including how the major sections contribute to the whole.	**5.** Describe how any given sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.	**5.** Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.
6. Compare and contrast one author's point of view on events with that of another (e.g., a memoir written by and a biography on the same person).	**6.** Describe an author's point of view or purpose in a text and analyze how the author distinguishes his or her point of view from that of others.	**6.** Compare and contrast the points of view and purposes of two authors writing about the same topic.
Integration of Knowledge and Ideas		
7. Compare and contrast the accounts of a subject in different mediums (e.g., a person's life story told in print, video, or multimedia), analyzing which details are emphasized and how the account unfolds in each version.	**7.** Compare and contrast the impression conveyed by a printed text to that conveyed when listening to or viewing a video or multimedia presentation of it (e.g., analyzing how the delivery of a speech affects its impact).	**7.** Evaluate the advantages and disadvantages of using different mediums (e.g., text, video, multimedia) to present a particular topic or idea.
8. Distinguish among fact, opinion, and reasoned judgment presented in a text.	**8.** Identify the stated and unstated premises of an argument and explain how they contribute to the conclusions reached.	**8.** Evaluate an argument's claims and reasoning as well as the degree to which evidence supports each claim.
9. Assess the similarities and differences between two or more texts on the same subject and apply the knowledge gained to inform reading of additional texts.	**9.** Analyze where two or more texts provide conflicting information on the same subject and determine whether the texts disagree on matters of fact or on matters of interpretation.	**9.** Compare and contrast how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.
Range and Level of Text Complexity		
10. Read informational text independently, proficiently, and fluently in the grades 6–8 text complexity band; read texts at the high end of the range with scaffolding as needed.	**10.** Read informational text independently, proficiently, and fluently in the grades 6–8 text complexity band; read "stretch" texts in the grades 9–10 text complexity band with scaffolding as needed.	**10.** Read informational text independently, proficiently, and fluently in the grades 6–8 text complexity band; engage in sustained practice with "stretch" texts in the grades 9–10 text complexity band with scaffolding as needed.

Reading Standards for Informational Text 6–12

Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details	
1. Cite evidence in the text that most strongly supports a specific analysis of what the text says explicitly as well as inferences drawn from the text.	**1.** Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves things uncertain.
2. Analyze in detail the development and refinement of a central idea in a text, including how it emerges and is shaped and refined by specific details.	**2.** Analyze how multiple ideas in a text interact, build on, and, in some cases, conflict with one another.
3. Analyze the interactions between and among ideas and events, including how ideas and events influence one another.	**3.** Analyze in detail an author's ideas by describing how the ideas are developed and refined by specific sentences, paragraphs, and larger portions of a text.
Craft and Structure	
4. Evaluate how an author's use of language, including formality and type of diction, shapes meaning and tone in a text (e.g., the formality of a court opinion or a newspaper).	**4.** Interpret how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines *faction* in Federalist No. 10 and No. 51).
5. Evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.	**5.** Analyze how an author's choices concerning how to structure a text (e.g., how reasons, evidence, and information are organized and emphasized) shape the meaning of the text.
6. Analyze documents of historical and literary significance, including foundational U.S. documents (e.g., the Declaration of Independence, the Preamble to the Constitution, the Bill of Rights) for their premises, purposes, and structure.	**6.** Analyze how various authors express different points of view on similar events or issues, assessing the authors' assumptions, use of evidence, and reasoning, including analyzing seminal U.S. documents (e.g., *The Federalist*, landmark U.S. Supreme Court majority opinions and dissents).
Integration of Knowledge and Ideas	
7. Synthesize information presented in different formats (e.g., text, video, mutimedia) to generate a coherent understanding of an issue.	**7.** Synthesize and apply multiple sources of information presented in different formats in order to address a question or solve a problem, including resolving conflicting information.
8. Assess the truth of an argument's explicit and implicit premises by determining whether the evidence presented in the text justifies the conclusions.	**8.** Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing the relevance and sufficiency of evidence and identifying false statements or fallacious reasoning.
9. Analyze how authors argue with or otherwise respond to one another's ideas or accounts of key events, evaluating the strength of each author's interpretation.	**9.** Synthesize explanations and arguments from diverse sources to provide a coherent account of events or ideas, including resolving conflicting information.
Range and Level of Text Complexity	
10. **In grade 9**, read informational text independently, proficiently, and fluently in the grades 9–10 text complexity band; read texts at the high end of the range with scaffolding as needed. **In grade 10**, read informational text independently, proficiently, and fluently in the grades 9–10 text complexity band; read "stretch" texts in the grades 11–CCR text complexity band with scaffolding as needed.	**10.** **In grade 11**, read informational text independently, proficiently, and fluently in the grades 11–CCR text complexity band; read texts at the high end of the range with scaffolding as needed. **In grade 12**, read informational text independently, proficiently, and fluently in the grades 11–CCR text complexity band; read "stretch" texts in the Beyond CCR text complexity band with scaffolding as needed.

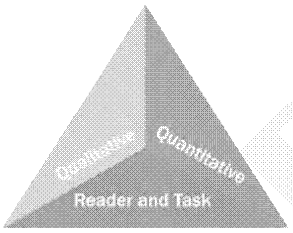
Range and Level of Text Complexity for Student Reading by Grade (Standard 10)

Students demonstrate proficiency in reading texts at the following ranges of text complexity to progress on a path to college and career readiness.

6		**In grade 6**, students focus on reading texts independently in the grades 6–8 text complexity band, with scaffolding likely required for texts at the high end of the range.
7		**In grade 7**, students focus on reading texts independently in the grades 6–8 text complexity band (90 percent) and are introduced to texts in the grades 9–10 text complexity band as "stretch" texts (10 percent), which will likely require scaffolding.
8		**In grade 8**, students focus on reading texts independently in the grades 6–8 text complexity band (70 percent) as well as sustained practice with texts in the grades 9–10 text complexity band as "stretch" texts (30 percent), which will likely require scaffolding.
9		**In grade 9**, students focus on reading texts independently in the grades 9–10 text complexity band, with scaffolding likely required for texts at the high end of the range.
10		**In grade 10**, students focus on reading texts independently in the grades 9–10 text complexity band (70 percent) and are introduced to texts in the grades 11–CCR text complexity band as "stretch" texts (30 percent), which will likely require scaffolding.
11		**In grade 11**, students focus on reading texts independently in the grades 11–CCR text complexity band, with scaffolding likely required for texts at the high end of the range.
12		**In grade 12**, students focus on reading texts independently in the grades 11–CCR text complexity band (70 percent) and are introduced to texts in the Beyond CCR text complexity band as "stretch" texts (30 percent), which will likely require scaffolding.

Note: In any given classroom, the actual range of students' reading ability could be greater than the proposed range. Some students will require extra time and intense support and scaffolding to enable them to read grade-level material, whereas other students will be ready for—and should be encouraged to read—more advanced texts.

Measuring Text Complexity: Three Factors



Qualitative evaluation of the text: Levels of meaning, structure, language conventionality and clarity, and knowledge demands

Quantitative evaluation of the text: Readability measures and other scores of text complexity

Matching reader to text and task: Reader knowledge, motivation, and interests as well as the complexity generated by the tasks to be assigned and the questions to be posed

Note: More detailed information on text complexity and how it is measured is contained in Appendix A.

College and Career Readiness Standards for Writing

The grades 6–12 standards on the following pages define what students should understand and be able to do in each grade and build toward the ten College and Career Readiness Standards.

Text Types and Purposes[1]

1. Write arguments to support a substantive claim with clear reasons and relevant and sufficient evidence.
2. Write informative/explanatory texts to convey complex information clearly and accurately through purposeful selection and organization of content.
3. Write narratives to convey real or imagined experiences, individuals, or events and how they develop over time.

Production and Distribution of Writing

4. Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience.
5. Strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.[2]
6. Use technology, including the Internet, to produce, publish, and interact with others about writing.

Research to Build Knowledge

7. Perform short, focused research projects as well as more sustained research in response to a focused research question, demonstrating understanding of the material under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate and cite the information while avoiding plagiarism.
9. Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned.

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.[3]

[1]These broad categories of writing include many subgenres. See Appendix A for definitions of key writing types.
[2]See "Conventions" in Language, pages 47–50, for specific editing expectations.
[3]This standard is measured by the proficiency of student writing products.

Note on range and content of student writing

For students, writing is a key means of asserting and defending claims, showing what they know about a subject, and conveying what they have experienced, imagined, thought, and felt. To be college- and career-ready writers, students must take task, purpose, and audience into careful consideration, choosing words, information, structures, and formats deliberately. They need to be able to use technology strategically when creating, refining, and collaborating on writing. They have to become adept at gathering information, evaluating sources, and citing material accurately, reporting findings from their research and analysis of sources in a clear and cogent manner. They must have the flexibility, concentration, and fluency to produce high-quality first-draft text under a tight deadline as well as the capacity to revisit and make improvements to a piece of writing over multiple drafts when circumstances encourage or require it. To meet these goals, students must devote significant time and effort to writing, producing numerous pieces over short and long time frames throughout the year.

Writing Standards 6–12

Following are the standards for grades 6–12, which relate to their College and Career Readiness counterparts by number. They offer a focus for instruction in each year to help ensure that students gain adequate exposure to a range of skills and applications. Growth in writing ability is characterized by an increasing sophistication in all aspects of language use, from vocabulary and syntax to the development and organization of ideas. At the same time, the content and sources that students address in their writing grow in demand every year.

Grade 6 students:	Grade 7 students:	Grade 8 students:
Text Types and Purposes		
1. Write arguments in which they: a. Introduce a claim about a topic or issue and organize the reasons and evidence to support the claim. b. Support the claim with clear reasons and relevant evidence. c. Use words, phrases, and clauses to convey the relationships among claims and reasons. d. Sustain an objective style and tone. e. Provide a concluding statement or section that follows from the argument.	**1.** Write arguments in which they: a. Introduce a claim about a topic or issue, acknowledge alternate or opposing claims, and organize the reasons and evidence logically to support the claim. b. Support the claim with logical reasoning and detailed, relevant evidence that demonstrate a comprehensive understanding of the topic. c. Use words, phrases, and clauses to convey the relationships among the claims, reasons, and evidence. d. Sustain an objective style and tone. e. Provide a concluding statement or section that follows logically from the argument.	**1.** Write arguments in which they: a. Introduce a claim about a topic or issue, distinguish it from alternate or opposing claims, and organize the reasons and evidence logically to support the claim. b. Support the claim with logical reasoning and detailed and relevant evidence from credible sources to demonstrate a comprehensive understanding of the topic. c. Use words, phrases, and clauses to make clear the relationships among claims, reasons, counterclaims, and evidence. d. Sustain an objective style and tone. e. Provide a concluding statement or section that follows logically from the argument.
2. Write informative/explanatory texts in which they: a. Introduce a topic and organize information appropriate to the purpose, using strategies such as definition, classification, comparison/contrast, and cause/effect. b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate links and varied sentence structures to join and clarify ideas. d. Use straightforward language to create an objective style appropriate for a reader seeking information. e. Provide a conclusion that follows logically from the information or explanation presented.	**2.** Write informative/explanatory texts in which they: a. Introduce and establish a topic that provides a sense of what is to follow and organize information appropriate to the purpose, using strategies such as definition, classification, comparison/contrast, and cause/effect. b. Develop the topic with relevant and accurate facts, definitions, concrete details, quotations, or other information and examples. c. Use appropriate links and varied sentence structures to create cohesion and clarify ideas. d. Use precise language and sustain an objective style appropriate for a reader seeking information. e. Provide a conclusion that follows logically from the information or explanation presented.	**2.** Write informative/explanatory texts in which they: a. Introduce and establish a topic and organize information under broader concepts or categories. b. Develop the topic with well-chosen, relevant, and accurate facts, concrete details, quotations, or other information and examples. c. Use varied links and sentence structures to create cohesion and clarify information and ideas. d. Use precise language and domain-specific and technical wording (when appropriate) and sustain a formal, objective style appropriate for a reader seeking information. e. Provide a conclusion that follows logically from the information or explanation presented.

Grade 6 students:	Grade 7 students:	Grade 8 students:
Text Types and Purposes (continued)		
3. Write narratives in which they: a. Engage and orient the reader by establishing a context and point of view, and organize a sequence of events or experiences. b. Develop narrative elements (e.g., setting, event sequence, characters) using relevant sensory details. c. Use a variety of transition words, phrases, and clauses to convey sequence, shift from one time frame or setting to another, and/or show the relationships among events and experiences. d. Choose words and phrases to develop the events, experiences, and ideas precisely. e. Provide a satisfying conclusion that follows from the events, experiences, or ideas.	**3.** Write narratives in which they: a. Engage and orient the reader by establishing a context and point of view, and purposefully organize a sequence of events or experiences. b. Develop narrative elements (e.g., setting, conflict, complex characters) with relevant and specific sensory details. c. Use a variety of techniques to convey sequence, shift from one time frame or setting to another, and/or show the relationships among events or experiences. d. Choose words and phrases to develop the events, experiences, and ideas precisely and to create mood. e. Provide a satisfying conclusion that follows from the events, experiences, or ideas.	**3.** Write narratives in which they: a. Engage and orient the reader by establishing a context and point of view, and purposefully organize a progression of events or experiences. b. Develop narrative elements (e.g., setting, plot, event sequence, complex characters) with well-chosen, relevant, and specific sensory details. c. Use a variety of techniques to convey sequence in multiple storylines, shift from one time frame or setting to another, and/or show the relationships among events or experiences. d. Choose words and phrases to effectively develop the events, experiences, and ideas precisely and to create mood. e. Provide a satisfying conclusion that follows from the events, experiences, or ideas.
Production and Distribution of Writing		
4. Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Standards 1–3 above.)	**4.** Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Standards 1–3 above.)	**4.** Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Standards 1–3 above.)
5. With some guidance and support from peers and adults, strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.	**5.** With some guidance and support from peers and adults, strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach after rethinking how well questions of purpose have been addressed.	**5.** With some guidance and support from peers and adults, strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach after rethinking how well questions of purpose and context have been addressed.
6. Use technology, including the Internet, to produce, publish, and interact with others about writing, including linking to and citing online sources.	**6.** Use technology, including the Internet, to produce, publish, and interact with others about writing, including presenting and citing information in a digital format.	**6.** Use technology, including the Internet, to present and cite information effectively in a digital format, including when publishing and responding to writing.

Writing Standards 6–12

Grade 6 students:	Grade 7 students:	Grade 8 students:
Research to Build Knowledge		
7. Perform short, focused research projects in response to a question and refocus the inquiry in response to further research and investigation.	**7.** Perform short, focused research projects in response to a question and generate additional related and focused questions for further research and investigation.	**7.** Perform short, focused research projects in response to a question and generate additional related questions that allow for multiple avenues of exploration.
8. Gather relevant information from multiple print and digital sources, assess the credibility of each source, and quote or paraphrase the data and conclusions of others while avoiding plagiarism and documenting sources.	**8.** Gather relevant information from multiple print and digital sources using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others, avoiding plagiarism and following a standard format for citation.	**8.** Gather relevant information from multiple print and digital sources using advanced search features; assess the credibility and accuracy of each source; and quote or paraphrase the evidence, avoiding plagiarism and following a standard format for citation.
9. Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned. a. Apply *grade 6 reading standards* to literature (e.g., "Analyze stories in the same genre (e.g., mysteries, adventure stories), comparing and contrasting their approaches to similar themes and topics."). b. Apply *grade 6 reading standards* to literary nonfiction (e.g., "Distinguish among fact, opinion, and reasoned judgment presented in a text").	**9.** Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned. a. Apply *grade 7 reading standards* to literature (e.g., "Analyze a specific case in which a modern work of fiction draws on patterns of events or character types found in traditional literature (e.g., the hero, the quest). b. Apply *grade 7 reading standards* to literary nonfiction (e.g., "Identify the stated and unstated premises of an argument and explain how they contribute to the conclusions reached").	**9.** Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned: a. Apply *grade 8 reading standards* to literature (e.g., "Compare a fictional portrayal of a time, place, or character to historical sources from the same period as a means of understanding how authors use or alter history"). b. Apply *grade 8 reading standards* to literary nonfiction (e.g., "Evaluate an argument's claims and reasoning as well as the degree to which evidence supports each claim").
Range of Writing		
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	**10.** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	**10.** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes	
1. Write arguments which they: a. Introduce a precise claim, distinguish it from alternate or opposing claims, and provide an organization that establishes clear relationships among the claim, reasons, and evidence. b. Develop a claim and counterclaim fairly, supplying evidence for each, while pointing out the strengths of their own claim and the weaknesses of the counterclaim. c. Use precise words, phrases, and clauses to make clear the relationships between claims and reasons, between reasons and evidence, and between claims and counterclaims. d. Sustain an objective style and tone while attending to the norms and conventions of the specific discipline as well as to the audience's knowledge of the issue. e. Provide a concluding statement or section that follows logically from the argument and offers a reflection or recommendation.	**1.** Write arguments in which they: a. Introduce a substantive claim, establish its significance, distinguish it from alternate or opposing claims, and create an organization so that claims, reasons, and evidence are purposefully and logically sequenced. b. Develop a claim and counterclaim thoroughly and fairly, supplying the most relevant evidence, while pointing out the strengths of their own claim and the weaknesses of the counterclaim. c. Use precise words, phrases, and complex syntax to make explicit the relationships between claims and reasons, between reasons and evidence, and between claims and counterclaims. d. Sustain an objective style and tone while attending to the norms and conventions of the specific discipline as well as to the audience's knowledge, values, and possible biases. e. Provide a concluding statement or section that follows logically from the argument and offers a reflection or recommendation.
2. Write informative/explanatory texts in which they: a. Introduce a topic and organize information under broader concepts and categories to make clear the connections and distinctions between key ideas appropriate to the purpose; include formatting (e.g., headings) and graphics (e.g., figures, tables) when useful to clarify ideas. b. Develop a complex topic through well-chosen, relevant, and sufficient facts, concrete details, quotations, extended definitions, or other information and examples. c. Use varied transitions and sentence structures to create cohesion, clarify information and ideas, and link major sections in the text. d. Use precise language and domain-specific and technical wording (when appropriate) to manage the complexity of the topic in a style that responds to the specific discipline and context as well as to the expertise of likely readers. e. Provide a conclusion that follows logically from the information or explanation provided and articulates the implications or significance of the topic.	**2.** Write informative/explanatory texts in which they: a. Introduce a complex topic and organize the information at multiple levels of the text so that each new piece of information builds on that which precedes it to create a unified whole; include formatting (e.g., headings) and graphics (e.g., figures, tables) when useful to clarify ideas. b. Thoroughly develop aspects of a complex topic through the purposeful selection of the most significant and relevant facts, concrete details, quotations, extended definitions, or other information and examples. c. Use varied transitional devices and sentence structures to create cohesion, clarify complex ideas, and link the major sections of the text. d. Use precise language, domain-specific and technical wording (when appropriate), and techniques such as metaphor, simile, and analogy to manage the complexity of the topic in a style that responds to the specific discipline and context as well as to the expertise of likely readers. e. Provide a well-developed conclusion that follows logically from the information or explanation provided and articulates the implications or significance of the topic.

Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes (continued)	
3. Write narratives in which they: a. Engage the reader by establishing a problem, situation, or observation and purposefully organize a progression of events or experiences. b. Develop narrative elements (e.g., setting, event sequence, complex characters) with well-chosen, revealing details. c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole. d. Use precise language to develop a picture of how the events, experiences, and ideas emerge and unfold. e. Provide a satisfying conclusion that follows from what is experienced, observed, or resolved over the course of the narrative.	**3.** Write narratives in which they: a. Engage the reader by establishing the significance of a problem, situation, or observation and purposefully organize events or experiences. b. Develop narrative elements (e.g., setting, stance, event sequence, complex characters) with purposefully selected details that call readers' attention to what is most distinctive or worth noticing. c. Use a variety of techniques to build toward a particular impact (e.g., a sense of mystery, suspense, growth, or resolution). d. Use precise language to develop the events, experiences, and ideas clearly and to reinforce the style. e. Provide a satisfying conclusion that follows from what is experienced, observed, or resolved over the course of the narrative.
Production and Distribution of Writing	
4. Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for this standard are defined in Standards 1–3 above.)	**4.** Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for this standard are defined in Standards 1–3 above.)
5. Strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific task and context.	**5.** Strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
6. Use technology, including the Internet, to produce, publish, and collaborate on a shared writing product, incorporating diverse and sometimes conflicting feedback.	**6.** Demonstrate command of technology, including the Internet, to produce, publish, and update work in response to ongoing feedback, including fresh arguments or new information.
Research to Build Knowledge	
7. Perform short, focused research projects and more sustained research; synthesize multiple sources on a subject to answer a question or solve a problem.	**7.** Perform short, focused research projects and more sustained research; synthesize multiple authoritative sources on a subject to answer a question or solve a problem.
8. Assemble evidence gathered from authoritative print and digital sources; assess the credibility and accuracy of the information and its strengths and limitations in terms of answering the research question; and integrate selected information into the text, avoiding overreliance on any one source and following a standard format for citation.	**8.** Analyze evidence gathered from multiple authoritative print and digital sources; assess the credibility and accuracy of the information and its usefulness and relevance for the specific task, purpose, and audience; and integrate selected information into the text, following a standard format for citation.

Grades 9–10 students:	Grades 11–12 students:
Research to Build Knowledge (continued)	
9. Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned. a. Apply *grades 9–10 reading standards* to literature (e.g., "Analyze a wide range of nineteenth- and early-twentieth-century foundational works of American literature, comparing and contrasting approaches to similar ideas or themes in two or more texts from the same period."). b. Apply *grades 9–10 reading standards* to literary nonfiction (e.g., "Assess the truth of an argument's explicit and implicit premises by determining whether the evidence presented in the text justifies the conclusions").	**9.** Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned. a. Apply *grades 11–12 reading standards* to literature (e.g., "Analyze how an author draws on and transforms fictional source material, such as how Shakespeare draws on a story from Ovid, or a later author draws on Shakespeare"). b. Apply *grades 11–12 reading standards* to literary nonfiction (e.g., "Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing the relevance and sufficiency of evidence and identifying false statements or fallacious reasoning").
Range of Writing	
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	**10.** Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

College and Career Readiness Standards for Speaking and Listening

The grades 6–12 standards on the following pages define what students should understand and be able to do in each grade and build toward the six College and Career Readiness Standards.

Comprehension and Collaboration

1. Participate effectively in a range of interactions (one-on-one and in groups), exchanging information to advance a discussion and to build on the input of others.
2. Integrate and evaluate information from multiple oral, visual, or multimodal sources in order to answer questions, solve problems, or build knowledge.
3. Evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric.

Presentation of Knowledge and Ideas

4. Present information, evidence, and reasoning in a clear and well-structured way appropriate to purpose and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating a command of formal English when indicated or appropriate.

Note on range and content of student speaking and listening

To become college and career ready, students must have ample opportunities to take part in a variety of rich, structured conversations—whole class, small group, and with a partner—built around important content in various domains. They must be able to contribute appropriately to these conversations, to make comparisons and contrasts, and to analyze and synthesize a multitude of ideas in accordance with the standards of evidence appropriate to a particular discipline. Whatever their intended major or profession, high school graduates will depend heavily on their ability to listen attentively to others so that they are able to build on others' meritorious ideas while expressing their own clearly and persuasively.

New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. The Internet has accelerated the speed at which connections between speaking, listening, reading, and writing can be made, requiring that students be ready to use these modalities nearly simultaneously. Technology itself is changing quickly, creating a new urgency for students to be adaptable in response to change.

Speaking and Listening Standards 6–12

Following are the standards for grades 6–12, which relate to their College and Career Readiness counterparts by number. They offer a focus for instruction in each year to help ensure that students gain adequate exposure to a range of skills and applications.

Grade 6 students:	Grade 7 students:	Grade 8 students:
Comprehension and Collaboration		
1. Initiate and engage actively in group discussions on *grade 6 topics, texts, and issues* being studied in class. a. Prepare for discussions by completing reading or conducting research and explicitly draw on that material in discussions. b. Cooperate with peers to set clear goals and deadlines. c. Build on the ideas of others by asking relevant questions and contributing appropriate and essential information. d. Review the key ideas expressed and extend their own thinking in light of new information learned.	**1.** Initiate and engage actively in group discussions on *grade 7 topics, texts, and issues* being studied in class. a. Prepare for discussions by completing reading or conducting research and explicitly draw on that material in discussions. b. Cooperate with peers to set clear goals and deadlines. c. Advance a discussion by asking questions, responding precisely, and sharing factual knowledge and observations. d. Ensure a hearing for the range of positions on an issue. e. Take the views of others into account and, when warranted, modify their own views in light of the evidence presented.	**1.** Initiate and engage actively in group discussions on *grade 8 topics, texts, and issues* being studied in class. a. Prepare for discussions by completing reading or conducting research and explicitly draw on that material in discussions. b. Cooperate with peers to set clear goals and deadlines. c. Advance a discussion by asking questions, responding precisely, and sharing factual knowledge and observations supported by credible evidence. d. Ensure a hearing for the range of positions on an issue. e. Qualify or justify, when warranted, their own thinking after listening to others' questions or accounts of the evidence.
2. Interpret information presented in visual or multimodal formats and explain how the information clarifies and contributes to a topic or issue under study.	**2.** Determine the main ideas and supporting elements presented in oral, visual, or multimodal formats and explain how the information clarifies and contributes to an understanding of a topic or issue under study.	**2.** Determine the purpose of and perspectives represented in oral, visual, or multimodal formats and evaluate whether the information is laden with social, commercial, or political motives.
3. Delineate the claims made by a speaker or presenter and detail what evidence supports which claims.	**3.** Evaluate a speaker's or presenter's reasoning and claims as well as the degree to which each claim is logically supported by the evidence provided.	**3.** Assess the truth of a speaker's or presenter's premises and the validity of his or her conclusions.
Presentation of Knowledge and Ideas		
4. Present information, emphasizing salient points with pertinent descriptions and details and using appropriate eye contact, adequate volume, and clear pronunciation.	**4.** Present claims and findings with relevant and specific descriptions, facts, and examples, and use appropriate eye contact, adequate volume, and clear pronunciation.	**4.** Present claims and findings with relevant evidence that is accessible and verifiable to listeners, and use appropriate eye contact, adequate volume, and clear pronunciation.
5. Incorporate digital media and visual displays of data when helpful and in a manner that strengthens the presentation.	**5.** Incorporate digital media and visual displays of data when helpful and in a manner that strengthens the presentation.	**5.** Incorporate digital media and visual displays of data when helpful and in a manner that strengthens the presentation.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating a command of formal English when indicated or appropriate. (See "Conventions" in Language, on pages 47–50, for specific demands.)	**6.** Adapt speech to a variety of contexts and communicative tasks, demonstrating a command of formal English when indicated or appropriate. (See "Conventions" in Language, pages 47–50, for specific demands.)	**6.** Adapt speech to a variety of contexts and communicative tasks, demonstrating a command of formal English when indicated or appropriate. (See "Conventions" in Language, pages 47–50, for specific demands.)

Speaking and Listening Standards 6–12

Grades 9–10 students:	Grades 11–12 students:
Comprehension and Collaboration	
1. Initiate and participate effectively in group discussions on *grades 9–10 topics, texts, and issues* being studied in class. a. Prepare for discussions by reading and researching material under study and explicitly draw on that preparation in discussions. b. Cooperate with peers to set clear goals and deadlines and to establish roles. c. Build on essential information from others' input by asking questions and sharing comments that enrich discussions. d. Acknowledge the ideas and contributions of others in the group, reach decisions about the information and ideas under discussion, and complete the task. e. Evaluate whether the team has met its goals.	**1.** Initiate and participate effectively in group discussions on *grades 11–12 topics, texts, and issues* being studied in class. a. Prepare for discussions by distilling the evidence or information about the material under study and explicitly draw on that preparation in discussions. b. Cooperate with peers to set clear goals and deadlines, establish roles, and determine ground rules for decision making (e.g., informal consensus, taking votes on key issues, presentation of alternate views). c. Propel conversations forward by asking questions that test the evidence and by sharing findings that clarify, verify, or challenge ideas and conclusions. d. Summarize accurately the comments and claims made on all sides of an issue and determine what additional information, research, and tasks are required for the team to complete the task. e. Evaluate whether the team has met its goals.
2. Synthesize information presented visually or multimodally with other information presented orally, noting any discrepancies between the data that emerge as a result.	**2.** Integrate multiple streams of data presented through various mediums, evaluating the reliability and credibility of each source of information in order to answer questions, solve problems, or build knowledge.
3. Determine a speaker's or presenter's position or point of view by assessing the evidence, word choice, points of emphasis, and tone used.	**3.** Evaluate the information conveyed and rhetoric used by a speaker or presenter, identifying logical errors in reasoning and exaggerated or distorted evidence.
Presentation of Knowledge and Ideas	
4. Plan and deliver relevant and sufficient evidence in support of findings and claims such that listeners can follow the reasoning, adjusting presentation to particular audiences and purposes.	**4.** Plan and deliver focused and coherent presentations that convey clear and distinct perspectives such that the line of reasoning and sources of support are clear and alternative perspectives are addressed, adjusting presentation to particular audiences and purposes.
5. Make strategic use of digital media elements and visual displays of data to enhance understanding.	**5.** Make strategic use of digital media elements and visual displays of data to enhance understanding.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating a command of formal English when indicated or appropriate. (See "Conventions" in Language, pages 47–50, for specific demands.)	**6.** Adapt speech to a variety of contexts and communicative tasks, demonstrating a command of formal English when indicated or appropriate. (See "Conventions" in Language, pages 47–50, for specific demands.)

College and Career Readiness Standards for Language

The grades 6–12 standards on the following pages define what students should understand and be able to do in each grade and build toward the six College and Career Readiness Standards.

Conventions in Writing and Speaking

1. Demonstrate a command of the conventions of standard English grammar and usage.
2. Demonstrate a command of the conventions of capitalization, punctuation, and spelling.
3. Make effective choices about language, punctuation, and sentence structure for meaning and style.

Vocabulary Acquisition and Use

4. Determine the meaning of words and phrases encountered through conversations, reading, and media use.
5. Understand the nuances of and relationships among words.
6. Use grade-appropriate general academic vocabulary and domain-specific words and phrases purposefully acquired as well as gained through conversation and reading and responding to texts.

Note on range and content of student language use

To be college and career ready in language, students must have firm control over the conventions of writing and speaking and have extensive vocabularies built through reading and study. They must have a well-developed understanding of standard written and spoken English, demonstrating command of the conventions of grammar, usage, and mechanics. They also must come to appreciate that language is as much a matter of craft as of rules and be able to use punctuation, words, phrases, clauses, and sentences to achieve particular rhetorical effects and to convey ideas precisely and concisely. They need to become highly skilled in determining the meanings of words they encounter, choosing flexibly from an array of strategies to aid them. They must learn to see an individual word as part of a network of other words—words, for example, that have similar denotations but different connotations. The inclusion of Language standards in their own strand should not be taken as an indication that skills related to conventions and vocabulary are unimportant to reading, writing, speaking, and listening; indeed, they are inseparable from such contexts.

Language Standards 6–12

Following are the standards for grades 6–12, which relate to their College and Career Readiness counterparts by number. They offer a focus for instruction in each year to help ensure that students gain adequate exposure to a range of skills and applications.

Grade 6 students:	Grade 7 students:	Grade 8 students:
Conventions in Writing and Speaking		
1. Observe conventions of grammar and usage. a. Ensure that pronouns are in the proper case (subjective, objective, possessive). b. Recognize and correct inappropriate shifts in pronoun number and person.* c. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).*	**1.** Observe conventions of grammar and usage. a. Explain the function of phrases and clauses in general and their functions in specific sentences. b. Chose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas. c. Place phrases and clauses within a sentence, avoiding misplaced and dangling modifiers.*	**1.** Observe conventions of grammar and usage. a. Form and use verbs in the active and passive voice. b. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive moods. c. Recognize and correct inappropriate shifts in verb voice and mood.*
2. Observe conventions of capitalization, punctuation, and spelling. a. Use commas, parentheses, or dashes to set off nonrestrictive/parenthetical elements.* b. Spell correctly.	**2.** Observe conventions of capitalization, punctuation, and spelling. a. Use a comma before a coordinating conjunction in a compound sentence. b. Spell correctly.	**2.** Observe conventions of capitalization, punctuation, and spelling. a. Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore an old[,] green shirt*). b. Use a comma, ellipses, or dash to indicate a pause or break. c. Spell correctly.
3. Make effective language choices. a. Vary sentence patterns for meaning, reader/listener interest, and style.*	**3.** Make effective language choices. a. Choose words and phrases that express ideas concisely, eliminating wordiness and redundancy.*	**3.** Make effective language choices. a. 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).

* Conventions standards noted with an asterisk need to be revisited by students in subsequent grades. See page 51 for a complete listing.

Grade 6 students:	Grade 7 students:	Grade 8 students:
Vocabulary Acquisition and Use		
4. Determine word meanings (*based on grade 6 reading*). a. Determine or clarify the meaning of unknown or multiple-meaning words through the use of one or more strategies, such as using semantic clues (e.g., sentence and paragraph context, the organizational pattern of the text); using syntactic clues (e.g., the word's position or function in the sentence); analyzing the word's sounds, spelling, and meaningful parts; and consulting reference materials, both print and digital. b. Use a known root as a clue to the meaning of an unknown word (e.g., *audience*, *auditory*, *audible*). c. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or looking up the word in a dictionary). d. Interpret various figures of speech (e.g., personification) relevant to particular texts.	**4.** Determine word meanings (*based on grade 7 reading*). a. Determine or clarify the meaning of unknown or multiple-meaning words through the use of one or more strategies, such as using semantic clues (e.g., sentence and paragraph context, the organizational pattern of the text); using syntactic clues (e.g., the word's position or function in the sentence); analyzing the word's sounds, spelling, and meaningful parts; and consulting reference materials, both print and digital. b. Use a known root as a clue to the meaning of an unknown word (e.g., *belligerent*, *bellicose*, *rebel*). c. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or looking up the word in a dictionary). d. Interpret various figures of speech (e.g., allegory) relevant to particular texts.	**4.** Determine word meanings (*based on grade 8 reading*). a. Determine or clarify the meaning of unknown or multiple-meaning words through the use of one or more strategies, such as using semantic clues (e.g., sentence and paragraph context, the organizational pattern of the text); using syntactic clues (e.g., the word's position or function in the sentence); analyzing the word's sounds, spelling, and meaningful parts; and consulting reference materials, both print and digital. b. Use a known root as a clue to the meaning of an unknown word (e.g., *precede*, *recede*, *secede*). c. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or looking up the word in a dictionary). d. Interpret various figures of speech (e.g. verbal irony, puns) relevant to particular texts.
5. Understand word relationships. a. Trace the network of uses and meanings that different words have and the interrelationships among those meanings and uses. b. Distinguish a word from other words with similar denotations but different connotations.	**5.** Understand word relationships. a. Trace the network of uses and meanings different words have and the interrelationships among those meanings and uses. b. Distinguish a word from other words with similar denotations but different connotations.	**5.** Understand word relationships. a. Trace the network of uses and meanings different words have and the interrelationships among those meanings and uses. b. Distinguish a word from other words with similar denotations but different connotations.
6. Use grade-appropriate general academic vocabulary and English language arts–specific words and phrases taught directly and gained through reading and responding to texts.	**6.** Use grade-appropriate general academic vocabulary and English language arts–specific words and phrases taught directly and gained through reading and responding to texts.	**6.** Use grade-appropriate general academic vocabulary and English language arts–specific words and phrases taught directly and gained through reading and responding to texts.

Grades 9–10 students:	Grades 11–12 students:
Conventions in Writing and Speaking	
1. Observe conventions of grammar and usage. a. Use parallel structure in writing.* b. 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 or presentations.	**1.** Observe conventions of grammar and usage. a. Apply the understanding that usage is a matter of convention, can change over time, and is sometimes contested. b. Resolve complex usage issues, particularly when the issue involves contested or changing usage; consult references (e.g., *Merriam-Webster's Dictionary of English Usage*) as needed for guidance.
2. Observe conventions of capitalization, punctuation, and spelling. a. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses. b. Use a colon to introduce a list or quotation. c. Spell correctly.	**2.** Observe conventions of capitalization, punctuation, and spelling. a. Observe the conventions concerning using hyphens to join words. b. Spell correctly.
3. Make effective language choices. a. Write and edit work so that it conforms to the guidelines in a style manual.	**3.** Make effective language choices. a. Write and edit work so that it conforms to the guidelines in a style manual.
Vocabulary Acquisition and Use	
4. Determine word meanings (*based on grades 9–10 reading*). a. Determine or clarify the meaning of unknown or multiple-meaning words through the use of one or more strategies, such as using semantic clues (e.g., sentence, paragraph, and whole-text context; the organizational pattern of the text); using syntactic clues (e.g., the word's position or function in the sentence); analyzing the word's sounds, spelling, and meaningful parts; understanding the word's etymology; and consulting reference materials, both print and digital. b. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or looking up the word in a dictionary). c. Interpret various figures of speech (e.g., hyperbole, paradox) and analyze their role in a text.	**4.** Determine word meanings (*based on grades 11–12 reading*). a. Determine or clarify the meaning of unknown or multiple-meaning words through the use of one or more strategies, such as using semantic clues (e.g., sentence, paragraph, and whole-text context; the organizational pattern of the text); using syntactic clues (e.g., the word's position or function in the sentence); analyzing the word's sounds, spelling, and meaningful parts; understanding the word's etymology; and consulting reference materials, both print and digital. b. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or looking up the word in a dictionary). c. Interpret various figures of speech (e.g., satire, sarcasm) and analyze their role in a text.
5. Understand word relationships. a. Trace the network of uses and meanings different words have and the interrelationships among those meanings and uses. b. Distinguish a word from other words with similar denotations but different connotations.	**5.** Understand word relationships. a. Trace the network of uses and meanings different words have and the interrelationships among those meanings and uses. b. Distinguish a word from other words with similar denotations but different connotations.
6. Use grade-appropriate general academic vocabulary and English language arts–specific words and phrases taught directly and gained through reading and responding to texts.	**6.** Use grade-appropriate general academic vocabulary and English language arts–specific words and phrases taught directly and gained through reading and responding to texts.

* Conventions standards noted with an asterisk need to be revisited by students in subsequent grades as their writing and speak grow in sophistication. See page 51 for a complete listing.

English Language Arts Conventions Progressive Skills, By Standard

The following, marked with an asterisk (*) in the Conventions standards, are skills and understandings that require continued attention in higher grades (after their introduction in the grade listed below) as they are applied to increasingly sophisticated writing and speaking.

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grades 9–10
1c. Ensure subject-verb and pronoun-antecedent agreement. **3a.** Choose words for effect.						
	1b. Form and use adjectives and adverbs (including comparative and superlative forms), placing them appropriately within sentences. **1c.** Produce complete sentences, avoiding rhetorically poor fragments and run-ons. **1d.** Correctly use frequently confused words (e.g., *effect/affect*, *to/too/two*). **3a.** Use punctuation for effect. **3b.** Maintain consistency in style and tone. **3c.** Choose words and phrases to convey ideas precisely.					
		1b. Recognize and correct inappropriate shifts in verb tense and aspect. **2a.** Use punctuation to separate items in a series. **3a.** Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.				
			1b. Recognize and correct inappropriate shifts in pronoun number and person. **1c.** Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents). **2a.** Use commas, parentheses, or dashes to set off nonrestrictive/parenthetical elements. **3a.** Vary sentence patterns for meaning, reader/listener interest, and style.			
				1c. Place phrases and clauses within a sentence, avoiding misplaced and dangling modifiers. **3b.** Choose words and phrases that express ideas concisely, eliminating wordiness and redundancy.		
					1c. Recognize and correct inappropriate shifts in verb voice and mood.	
						1a. Use parallel structure in writing.

Range of Text Types for 6–12

Students in grades 6–12 apply the Reading standards to the following range of text types, with texts selected from a broad range of cultures and periods.

Literature			Informational Text
Stories	**Drama**	**Poetry**	**Literary Nonfiction**
Includes the subgenres of adventure stories, historical fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels	Includes one-act and multiact plays, both in written form and on film	Includes the subgenres of narrative poems, lyrical poems, free verse poems, sonnets, odes, ballads, and epics	Includes the subgenres of exposition and argument in the form of personal essays, speeches, opinion pieces, essays about art or literature, biographies, memoirs, journalism, and historical, scientific, or economic accounts (including digital media sources) written for a broad audience

Texts Illustrating the Complexity, Quality, and Range of Student Reading 6–12

	Literature: Stories, Drama, Poetry	Informational Texts: Literary Nonfiction
6–8	▪ *Little Women* by Louisa May Alcott (1869) ▪ *The Adventures of Tom Sawyer* by Mark Twain (1876) ▪ "The Road Not Taken" by Robert Frost (1915) ▪ *The Dark Is Rising* by Susan Cooper (1973) ▪ *Dragonwings* by Laurence Yep (1975) ▪ *Roll of Thunder, Hear My Cry* by Mildred Taylor (1976)	▪ "Letter on Thomas Jefferson" by John Adams (1776) ▪ *Narrative of the Life of Frederick Douglass, an American Slave* by Frederick Douglass (1845) ▪ *Harriet Tubman: Conductor on the Underground Railroad* by Ann Petry (1955) ▪ *Travels with Charley: In Search of America* by John Steinbeck (1962) ▪ *The Great Fire* by Jim Murphy (1995) ▪ *This Land Was Made for You and Me: The Life and Songs of Woody Guthrie* by Elizabeth Partridge (2002)
9–10	▪ *The Tragedy of Romeo and Juliet* by William Shakespeare (1592) ▪ "Ozymandias" by Percy Bysshe Shelley (1817) ▪ "The Raven" by Edgar Allen Poe (1845) ▪ "The Gift of the Magi" by O. Henry (1906) ▪ *The Grapes of Wrath* by John Steinbeck (1939) ▪ *Fahrenheit 451* by Ray Bradbury (1953) ▪ *The Killer Angels* by Michael Shaara (1975)	▪ "Speech to the Second Virginia Convention" by Patrick Henry (1775) ▪ The Declaration of Independence by Thomas Jefferson (1776) ▪ "Second Inaugural Address" by Abraham Lincoln (1865) ▪ "State of the Union Address" by Franklin Delano Roosevelt (1941) ▪ *Cod: A Biography of the Fish That Changed the World* by Mark Kurlansky (1997) ▪ *The Race to Save Lord God Bird* by Phillip Hoose (2004)
11–CCR	▪ "Ode on a Grecian Urn" by John Keats (1820) ▪ *Jane Eyre* by Charlotte Brontë (1848) ▪ "Because I Could Not Stop for Death" by Emily Dickinson (1890) ▪ *The Great Gatsby* by F. Scott Fitzgerald (1925) ▪ *Their Eyes Were Watching God* by Zora Neale Hurston (1937) ▪ *A Raisin in the Sun* by Lorraine Hansberry (1959) ▪ *The Namesake* by Jhumpa Lahiri (2003)	▪ *The Crisis* by Thomas Paine (1776) ▪ *Walden* by Henry David Thoreau (1854) ▪ "Society and Solitude" by Ralph Waldo Emerson (1857) ▪ "Gettysburg Address" by Abraham Lincoln (1863) ▪ "Letter from Birmingham Jail" by Martin Luther King, Jr. (1964) ▪ *Google Hacks: Tips & Tools for Smarter Searching* by Tara Calishain and Rael Dornfest (2004) ▪ *America's Constitution: A Biography* by Akhil Reed Amar (2005)

Note: Given space limitations, the illustrative texts listed above are meant only to show individual titles that are representative of a range of topics and genres. (See Appendix B for excerpts of these and other texts illustrative of grades 6–12 text complexity.) At a curricular or instructional level, within and across grade levels, texts need to be selected around topics or themes that generate knowledge and allow students to study topics in depth.

Standards for Literacy in History/Social Studies & Science

6–12

College and Career Readiness Standards for Reading

The grades 6–12 standards on the following pages define what students need to know and be able to do and build toward the ten College and Career Readiness Standards.

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze in detail where, when, why, and how events, ideas, and characters develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and explain how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section or chapter) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Synthesize and apply information presented in diverse ways (e.g., through words, images, graphs, and video) in print and digital sources in order to answer questions, solve problems, or compare modes of presentation.[1]
8. Delineate and evaluate the reasoning and rhetoric within a text, including assessing whether the evidence provided is relevant and sufficient to support the text's claims.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range and Level of Text Complexity

10. Read complex texts independently, proficiently, and fluently, sustaining concentration, monitoring comprehension, and, when useful, rereading.[2]

[1]Please see "Research to Build Knowledge" in Writing for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

[2]Proficiency in this standard is measured by students' ability to read a range of appropriately complex text in each grade as defined in Appendix A.

Note on range and content of student reading

Reading is critical to building knowledge in history/social studies as well as in science and other technical fields. College- and career-ready reading in these fields requires an appreciation of the norms and conventions of each discipline, such as the kinds of evidence used in history and science; an understanding of domain-specific words and phrases; an attention to precise details; and the capacity to evaluate intricate arguments, synthesize complex information, and follow detailed descriptions of events and concepts. In history/social studies, for example, students need to be able to analyze, evaluate, and differentiate primary and secondary sources. When reading scientific and technical texts, students need to be able to gain knowledge from challenging texts that often make extensive use of elaborate diagrams and data to convey information and illustrate concepts. Students must be able to read complex informational text in these fields with independence and confidence because the vast majority of reading in college and workforce training programs will be sophisticated nonfiction. It is important to note that these Reading standards are meant to complement the specific content demands of the disciplines, not replace them.

Reading Standards for History/Social Studies 6–12

Following are the standards for grades 6–12, which relate to their College and Career Readiness counterparts by number. The standards below begin at grade 6; standards for K–5 reading in history/social studies are integrated into the K–5 standards for reading informational text.

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details		
1. Cite specific textual evidence to support analysis of primary and secondary sources. **2.** Determine the main ideas or information of a primary or secondary source; summarize the source, basing the summary on information in the text rather than on prior knowledge or opinions. **3.** Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).	**1.** Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information. **2.** Determine the main ideas or information of a primary or secondary source; summarize how key events or ideas develop over the course of the text. **3.** Analyze in detail a series of events described in a text and the causes that link the events; distinguish whether earlier events caused later ones or simply preceded them.	**1.** Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole. **2.** Determine the main ideas or information of a primary or secondary source; provide a summary that makes clear the relationships between the key details and ideas. **3.** Analyze how ideas and beliefs emerge, develop, and influence events, based on evidence in the text .
Craft and Structure		
4. Determine the meaning of words and phrases in a text, including vocabulary specific to domains related to history/social studies. **5.** Identify how a history/social studies text presents information (e.g., sequentially, comparatively, causally). **6.** Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).	**4.** Determine the meaning of words and phrases in a text, including the vocabulary describing political, economic, or social aspects of history. **5.** Explain how an author chooses to structure information or an explanation in a text to emphasize key points or advance a point of view. **6.** Compare the point of view of two or more authors by comparing how they treat the same or similar historical topics, including which details they include and emphasize in their respective accounts.	**4.** Interpret the meaning of words and phrases in a text, including how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines *faction* in Federalist No. 10 and No. 51). **5.** Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs, and larger portions of the text contribute to the whole. **6.** Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, evidence, and reasoning.
Integration of Knowledge and Ideas		
7. Integrate graphical information (e.g., pictures, videos, maps, time lines) with other information in a print or digital text. **8.** Distinguish among fact, opinion, and reasoned judgment in a historical account. **9.** Analyze the relationship between a primary and secondary source on the same topic.	**7.** Integrate quantitative or technical information presented in maps, time lines, and videos with other information in a print or digital text. **8.** Assess the extent to which the evidence n a text supports the author's claims. **9.** Compare and contrast treatments of the same topic in several primary and secondary sources.	**7.** Synthesize ideas and data presented graphically and determine their relationship to the rest of a print or digital text, noting discrepancies between the graphics and other information in the text. **8.** Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other sources of information. **9.** Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.
Range and Level of Text Complexity		
10. Read informational text independently, proficiently, and fluently in the grades 6–8 text complexity band; read "stretch" texts with scaffolding as needed.	**10.** Read informational text independently, proficiently, and fluently in the grades 9–10 text complexity band; read "stretch" texts with scaffolding as needed.	**10.** Read informational text independently, proficiently, and fluently in the grades 11–12 text complexity band; read "stretch" texts with scaffolding as needed.

Reading Standards for Science 6–12

Following are the standards for grades 6–12, which relate to their College and Career Readiness counterparts by number. The standards below begin at grade 6; standards for K–5 reading in science are integrated into the K–5 standards for reading informational text.

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Key Ideas and Details		
1. Cite specific textual evidence to support analysis of scientific and technical texts.	**1.** Cite specific textual evidence to support analysis of scientific and technical text, including analysis of the precise details of explanations or descriptions.	**1.** Cite specific textual evidence to support analysis of scientific and technical texts, including analysis of important distinctions the author makes between ideas or pieces of information.
2. Summarize the broad ideas and specific conclusions made in a text, basing the summary on textual information rather than on prior knowledge or opinions.	**2.** Analyze the development of a text's explanation of a process or phenomenon, summarizing the central ideas and supporting details.	**2.** Summarize complex information or ideas presented in a text, paraphrasing it in simpler but still accurate terms.
3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	**3.** Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.	**3.** Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the causes of the specific results based on information from the text.
Craft and Structure		
4. Determine the meaning of key terms, symbols, and domain-specific vocabulary used in a text.	**4.** Determine the meaning of key terms, symbols, and domain-specific vocabulary used in a text, noting relationships among terms pertaining to important ideas or processes (e.g., *force*, *friction*, *reaction force*, *energy*).	**4.** Determine the meaning of key terms, symbols, and domain-specific vocabulary used in a text, attending to the precise meaning of terms as they are used in particular scientific or technical contexts.
5. Analyze how each major part of a text contributes to an understanding of the topic discussed in the text.	**5.** Analyze the relationships among concepts in a text, including developing propositional concept maps to organize and illustrate the ideas.	**5.** Analyze the hierarchical or categorical relationships of concepts or information presented in a text.
6. Analyze the purpose of an experiment or explanation in a text, including defining the problem or question to be resolved.	**6.** Analyze the purpose of an experiment, including defining the possibilities ruled out by the experimental results.	**6.** Analyze the scope and purpose of an experiment or explanation and determine which related issues remain unresolved or uncertain.
Integration of Knowledge and Ideas		
7. Integrate information provided by the words in a text with a version of that information expressed graphically (e.g., in a flowchart, diagram, model, graph, or table).	**7.** Integrate quantitative or technical information presented graphically (e.g., in a flowchart, diagram, model, graph, or table) with other information in a text.	**7.** Synthesize information in different formats by representing complex information in a text in graphical form (e.g., a table or chart) or translating a graphic or equation into words.
8. Distinguish facts or reasoned judgments based on research findings from opinions.	**8.** Assess the extent to which the evidence in a text supports a scientific claim or a recommendation for solving a technical problem.	**8.** Evaluate the hypotheses, data, and conclusions in a scientific text, corroborating or undercutting them with other sources of information.
9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	**9.** Compare experimental findings presented in a text to information from other sources, noting when the findings support or contradict previous explanations or accounts.	**9.** Integrate information from diverse sources (e.g., video, multimedia sources, experiments, simulations) into a coherent understanding of a concept, process, or phenomenon, noting discrepancies among sources.
Range and Level of Text Complexity		
10. Read informational text independently, proficiently, and fluently in the grades 6–8 text complexity band; read "stretch" texts with scaffolding as needed.	**10.** Read informational text independently, proficiently, and fluently in the grades 9–10 text complexity band; read "stretch" texts with scaffolding as needed.	**10.** Read informational text independently, proficiently, and fluently in the grades 11–CCR text complexity band; read "stretch" texts with scaffolding as needed.

College and Career Readiness Standards for Writing

The grades 6–12 standards on the following pages define what students need to know and be able to do and build toward these ten College and Career Readiness Standards.

Text Types and Purposes[1]

1. Write arguments to support a substantive claim with clear reasons and relevant and sufficient evidence.
2. Write informative/explanatory texts to convey complex information clearly and accurately through purposeful selection and organization of content.
3. Write narratives to convey real or imagined experiences, individuals, or events and how they develop over time.

Production and Distribution of Writing

4. Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience.
5. Strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce, publish, and interact with others about writing.

Research to Build Knowledge

7. Perform short, focused research projects as well as more sustained research in response to a focused research question, demonstrating understanding of the material under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate and cite the information while avoiding plagiarism.
9. Write in response to literary or informational sources, drawing evidence from the text to support analysis and reflection as well as to describe what they have learned.

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.[2]

[1]These broad categories of writing include many subgenres. See Appendix A for definitions of key writing types.
[2]This standard is measured by the proficiency of student writing products.

Note on range and content of student writing

For students, writing is a key means of asserting and defending claims, showing what they know about a subject, and conveying what they have experienced, imagined, thought, and felt. To be college- and career-ready writers, students must take task, purpose, and audience into careful consideration, choosing words, information, structures, and formats deliberately. They need to be able to use technology strategically when creating, refining, and collaborating on writing. They have to become adept at gathering information, evaluating sources, and citing material accurately, reporting findings from their research and analysis of sources in a clear and cogent manner. They must have the flexibility, concentration, and fluency to produce high-quality first-draft text under a tight deadline and the capacity to revisit and make improvements to a piece of writing over multiple drafts when circumstances encourage or require it. To meet these goals, students must devote significant time and effort to writing, producing numerous pieces over short and long time frames throughout the year.

Writing Standards for History/Social Studies and Science 6–12

Following are the standards for grades 6–12, which relate to their College and Career Readiness counterparts by number. The standards below begin at grade 6; standards for K–5 writing in history/social studies and science are integrated into the K–5 standards for writing.

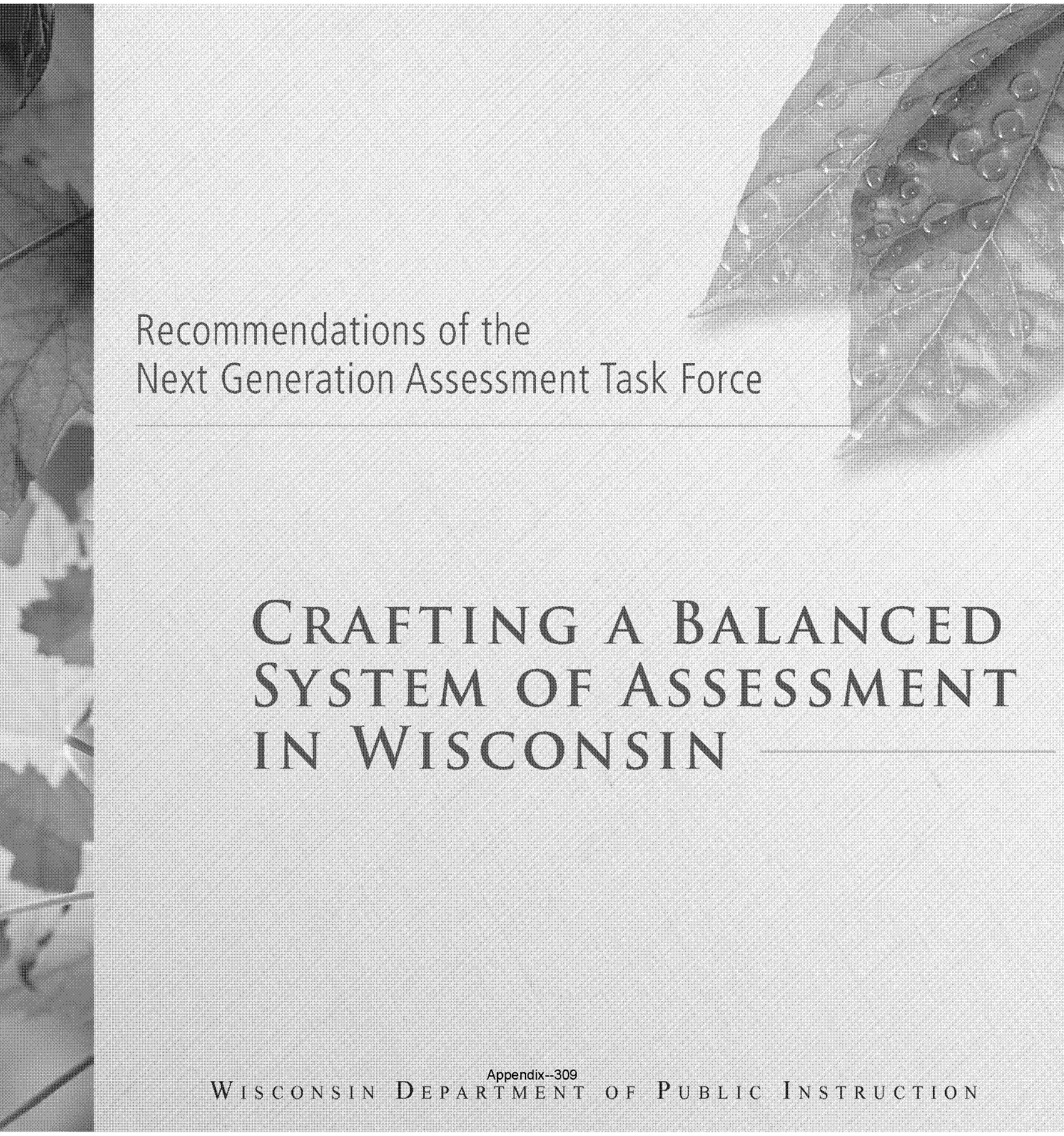
Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes		
1. Write arguments focused on *discipline-specific content* in which they: a. Introduce a claim about a topic or issue, distinguish it from alternate or opposing claims, and organize the reasons, data, and evidence logically to support the claim. b. Support the claim with logical reasoning and detailed, accurate data and evidence (science) or information from credible primary, secondary, and tertiary sources (history). c. Use words and phrases as well as domain-specific vocabulary to make clear the relationships among claims, reasons, data, and evidence. d. Sustain an objective style and tone. e. Provide a concluding statement or section that follows logically from the argument.	**1.** Write arguments focused on *discipline-specific content* in which they: a. Introduce a precise claim, distinguish it from alternate or opposing claims, and provide an organization that establishes clear relationships among the claim, reasons, data, and evidence. b. Develop a claim fairly with logical reasoning, supplying detailed, accurate data and evidence acquired in a scientifically acceptable form (science) or gathered from credible primary, secondary, and tertiary sources (history). c. Use precise words and phrases as well as domain-specific vocabulary to make clear the relationships between claims and reasons and between reasons and the data and evidence. d. Sustain an objective style and tone while attending to the norms and conventions of the specific discipline. e. Provide a concluding statement or section that follows logically from the argument.	**1.** Write arguments focused on *discipline-specific content* in which they: a. Introduce a substantive claim, establish its significance, distinguish it from alternate or opposing claims, and create an organization so that claims, reasons, data, and evidence are purposefully and logically sequenced. b. Develop a claim thoroughly and fairly with logical reasoning, supplying the most relevant data and evidence acquired in a scientifically acceptable form (science) or gathered from credible primary, secondary, and tertiary sources (history). c. Use precise words and phrases as well as domain-specific vocabulary to make clear the relationships between claims and reasons and between reasons and the data and evidence. d. Sustain an objective style and tone while attending to the norms and conventions of the specific discipline. e. Provide a concluding statement or section that follows logically from the argument.

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Text Types and Purposes (continued)		
2. Write informative/explanatory texts, including the narration of historical events or scientific procedures/experiments, in which they: a. Introduce and establish a topic and organize information under concepts or into categories. b. Develop a topic that has historical or scientific significance using well-chosen, relevant facts, data, details, quotations, examples, or other information. c. Use varied links and sentence structures to create cohesion and clarify information and ideas. d. Use precise language and domain-specific vocabulary and sustain a formal, objective style appropriate for a reader seeking information. e. Provide a conclusion that follows logically from the information or explanation presented.	**2.** Write informative/explanatory texts, including the narration of historical events or scientific procedures/experiments, in which they: a. Introduce a topic and organize information under concepts and into categories, making clear the connections and distinctions between key ideas; use formatting and graphics (e.g., headings, figures, tables, graphs, illustrations) as useful to clarify ideas. b. Develop a topic that has historical or scientific significance using well-chosen, relevant, and sufficient facts, data, details, quotations, examples, extended definitions, or other information. c. Use varied transitions and sentence structures to create cohesion, clarify information and ideas, and link major sections in the text. d. Use precise language and domain-specific vocabulary to convey a style appropriate to the specific discipline and context as well as to the expertise of likely readers. e. Provide a conclusion that follows logically from the information or explanation provided and that articulates the implications or significance of the topic.	**2.** Write informative/explanatory texts, including the narration of historical events or scientific procedures/experiments, in which they: a. Introduce a complex topic and organize the information so that each new piece of information builds on that which precedes it to create a unified whole; use formatting and graphics (e.g., headings, figures, tables, graphs, illustrations) as useful to clarify ideas. b. Develop a complex topic that has historical and scientific significance using the most significant and relevant facts, data, details, quotations, examples, extended definitions, or other information. c. Use varied transitional devices and sentence structures to create cohesion, clarify complex information and ideas, and link the major sections of the text. d. Use precise language, domain-specific and technical wording, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the specific discipline and context as well as to the expertise of likely readers. e. Provide a well-developed conclusion that follows logically from the information or explanation provided and that articulates the implications or significance of the topic.
3. Students' narrative skills continue to grow in these grades. The *Standards* require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history, students must be able to write narrative accounts about individuals or events of historical import. In science, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations that others can replicate them and (possibly) reach the same results.	**3.** Students' narrative skills continue to grow in these grades. The *Standards* require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history, students must be able to write narrative accounts about individuals or events of historical import. In science, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations that others can replicate them and (possibly) reach the same results.	**3.** Students' narrative skills continue to grow in these grades. The *Standards* require that students be able to incorporate narrative elements effectively into arguments and informative/explanatory texts. In history, students must be able to write narrative accounts about individuals or events of historical import. In science, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations that others can replicate them and (possibly) reach the same results.

Writing Standards for History/Social Studies and Science 6–12

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
Production and Distribution of Writing		
4. Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience.	**4.** Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience.	**4.** Produce writing in which the organization, development, substance, and style are appropriate to task, purpose, and audience.
5. With some guidance and support from peers and adults, strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach after rethinking how well questions of purpose and context have been addressed.	**5.** Strengthen writing as needed by planning, revising, editing, or trying a new approach, focusing on addressing what is most significant for a specific task and context.	**5.** Strengthen writing as needed by planning, revising, editing, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
6. Use technology, including the Internet, to present and cite information effectively in a digital format, including when publishing and responding to writing.	**6.** Use technology, including the Internet, to produce, publish, and collaborate on a shared writing product, incorporating diverse and sometimes conflicting feedback.	**6.** Demonstrate command of technology, including the Internet, to produce, publish, and update work in response to ongoing feedback, including fresh arguments or new information.
Research to Build Knowledge		
7. Perform short, focused research projects in response to a question or problem and generate additional related questions that allow for multiple avenues of exploration.	**7.** Perform short, focused research projects and more sustained research; synthesize multiple sources on a subject to answer a question or solve a problem.	**7.** Perform short, focused research projects and more sustained research; synthesize multiple authoritative sources on a subject to answer a question or solve a problem.
8. Gather relevant information from multiple print and digital sources using effectively tailored searches; assess the credibility and accuracy of each source; and quote or paraphrase the evidence, avoiding plagiarism and following a standard format for citation.	**8.** Gather relevant information from multiple print and digital sources; assess the credibility, accuracy, and strengths and limitations of each source; and integrate selected information into the text, avoiding overreliance on any one source, avoiding plagiarism, and following a standard format for citation.	**8.** Gather relevant information from multiple print and digital sources; assess its credibility and accuracy and its usefulness in terms of purpose, task, and audience; and integrate selected information into the text, avoiding overreliance on any one source, avoiding plagiarism, and following a standard format for citation.
9. Write in response to informational sources, drawing on textual evidence to support analysis and reflection as well as to describe what they have learned.	**9.** Write in response to informational sources, drawing on textual evidence to support analysis and reflection as well as to describe what they have learned.	**9.** Write in response to informational sources, drawing on textual evidence to support analysis and reflection as well as to describe what they have learned.
Range of Writing		
10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	**10.** Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.	**10.** Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Appendix 12: Next Generation Assessment Task Force Report: *Crafting a Balanced System of Assessment In Wisconsin*



Recommendations of the
Next Generation Assessment Task Force

Crafting a Balanced System of Assessment in Wisconsin

Wisconsin Department of Public Instruction

This publication is available from:

Office of Educational Accountability
Wisconsin Department of Public Instruction
125 South Webster Street
Madison, WI 53703
608.267.1072
http://dpi.wi.gov/oea.html

With support from
Great Lakes West Comprehensive Assistance Center

August 2009

Wisconsin Department of Public Instruction
Tony Evers, State Superintendent
Madison, Wisconsin

FORWARD

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Much has been written about the changing American economy and the skills our students need to be successful in the 21st century. Education, in turn, must respond to the changing needs of the state and the nation. This includes the standards to which we hold students and how we measure progress in meeting those standards.

Within this context, we convened the Next Generation Assessment Task Force to formulate Wisconsin's path forward. We listened to leaders from business and technology sectors as well as leaders from PK-12 and higher education.

In this summary we share the process, definitions, assumptions, and recommendations of the task force. Our aim is to use these findings as a blueprint for the next generation of assessment.

I believe the work of the task force will have a lasting impact. Internationally benchmarked standards working in concert with a balanced assessment system will ensure a quality education for all Wisconsin students.

Elizabeth Burmaster
State Superintendent 2001–2009

Wisconsin students are being educated to compete in a global society. How we assess the performance of those students, from their primary years through high school, should also reflect our state's commitment to excellence.

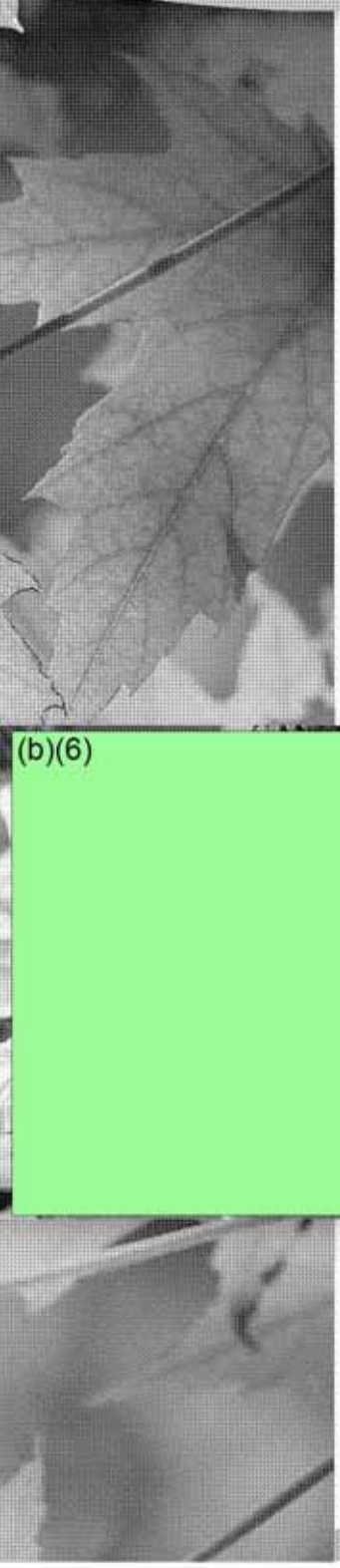
As co-chairs of the Next Generation Assessment Task Force, we were pleased to work with a group of statewide leaders from education, business, and civic leaders in an examination of Wisconsin's assessment system. We heard a vigorous discussion about how that system could be improved. Members of the task force took a hard look at the status quo, reviewed best practices in other states, and embraced the notion of creating a more balanced assessment system. A balanced system of formative, benchmark, and summative assessment is necessary to inform classroom teachers, to hold schools accountable, and to effectively report back to parents, community leaders, and students.

The work of the task force is timely in several respects. It comes at a time when the national debate over assessment has been revived; when the economic recession has reinforced the need for more and better knowledge-based workers; and when Wisconsin's content standards are being revised to reflect 21st century skills and to enhance career and college readiness.

In the near future and over the long-term, the recommendations of this task force can contribute to producing a better-educated citizenry and workforce in Wisconsin. We commend the work of the task force and look forward to seeing their ideas put into action.

Tom Still, President,
Wisconsin Technology Council
(Co-Chair)

Joan Wade, Administrator,
CESA 6 (Co-Chair)



Introduction

Our current Wisconsin Student Assessment System (WSAS) consists of two standardized assessments: the Wisconsin Knowledge & Concepts Exam (WKCE) and the Wisconsin Alternate Assessment for Students with Disabilities (WAA-SwD). These large-scale, summative assessments provide annual "snapshots" of student achievement in relation to state standards, the Wisconsin Model Academic Standards, and are required by law.

State law requires testing students in reading, mathematics, science, social studies, and language arts in Grades 4, 8, and 10. In addition, federal law requires all states to test reading and mathematics content in Grades 3-8 and once in high school. As such, these summative tests are designed to meet state and federal accountability requirements and must adhere to technical quality standards of large-scale assessment. The WSAS was one of the first in the nation to meet all of the rigorous federal standards of technical quality and alignment to state academic standards.

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The focus of the assessment system, therefore, is to gauge overall academic achievement of schools and districts across Wisconsin and to provide information on the relative strengths or gaps in curriculum and instruction as they relate to the Wisconsin Model Academic Standards. Summative assessments like the WKCE are typically given annually, meant to track long-term progress of schools and districts. Information at the student level can be limited. Large-scale assessments can only provide general information vis-à-vis individual student strengths and needs within a content area.

Wisconsin educators are increasingly interested in receiving more frequent and more detailed data on the strengths and needs of their individual students. Benchmark assessments, typically given on a monthly or quarterly basis, can produce immediate information about student progress so teachers can adjust instruction to meet student needs. These assessments benchmark progress throughout a school year and often provide diagnostic information to pinpoint a student's needs. Unlike the WKCE, such assessments yield specific information on a student's level of progress, while providing less information about the overall progress of schools and districts.

Even more student-specific and immediate are the formative assessment strategies that teachers use on a daily basis to gauge student understanding while they move through a unit of instruction. Assessing students formatively allows teachers to immediately adjust their instruction. Often these are teacher-developed strategies and are tailored to the teacher's lesson or unit of instruction. Formative assessment strategies provide the most detailed information about a student's understanding, but the least amount of data at aggregate school/district levels.

There is increased recognition in the education community that all assessment strategies—formative, benchmark, and summative—are essential and need to work in unison to improve student achievement. Each component has its strengths and limitations; one assessment type cannot meet all needs. An assessment system must work together with curriculum and instruction to provide a coherent system of learning.

Work Of The Task Force

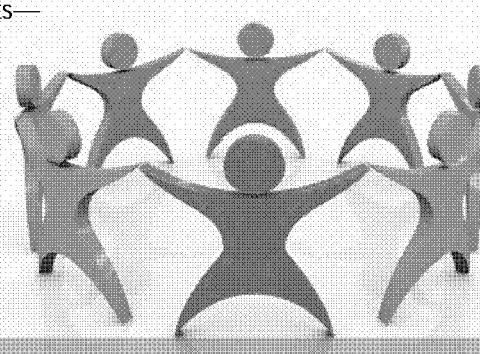
The Next Generation Assessment Task Force was convened by State Superintendent Burmaster in September 2008. The task force included a diverse group of leaders from business, technology, and education. The members met four times throughout the school year and conducted the following activities:

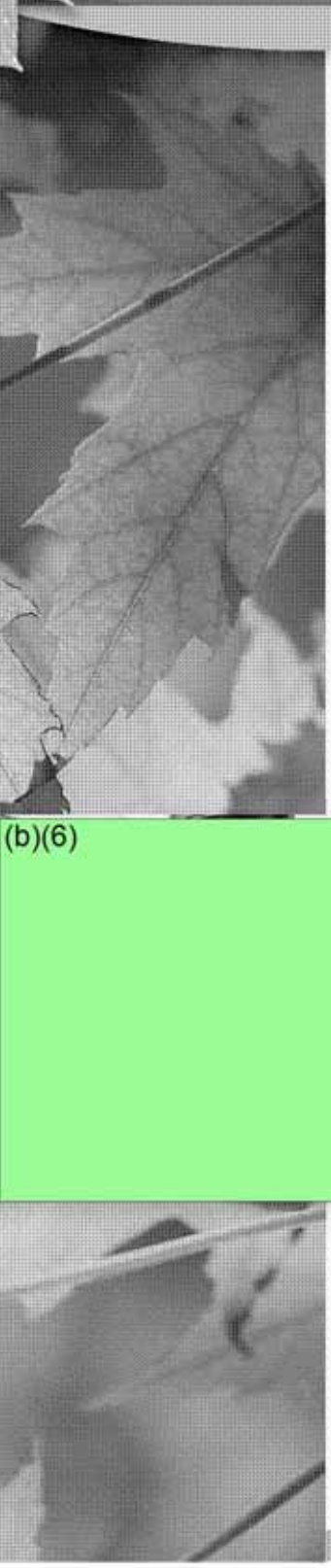
- Reviewed the history of Wisconsin's assessment system and education trends over time from a national perspective;
- Developed an understanding of the different types and purposes of formative, benchmark, and summative assessment;
- Considered the importance of implementing a balanced assessment system;
- Identified characteristics of positive assessment experiences and considered ways of building these characteristics into our system;
- Worked in small groups outlining key components and devising an ideal system of assessment— one that balances the three different types of assessment; and
- Considered PK-12 assessment through a systems perspective.

To gain an external perspective, task force members heard from five states with assessment systems that have innovative features: Indiana, Michigan, Minnesota, Nebraska, and Oregon.

Ultimately, the task force concluded five foundational assumptions and seven recommendations were needed to implement a balanced assessment system in Wisconsin. It was agreed that Wisconsin needs an assessment system that provides timely and relevant feedback to students and teachers alike, and one that helps teachers make instructional decisions to improve student achievement. In addition, the assessment strategies must address 21st century skills, preparing Wisconsin students to be college and work-ready.

These goals cannot be accomplished with one type of assessment administered once a year. It requires a system of assessments—formative, benchmark, and summative—that work in concert to inform classroom teachers; hold schools accountable; and report back to parents, community leaders, and to students themselves.





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Defining a Balanced Assessment System

Balanced Assessment System

Purpose: to provide students, educators, parents, and the public with a range of information about academic achievement and to determine the best practices and policies that will result in improvements to student learning.

Characteristics: includes a continuum of strategies and tools that are designed specifically to meet discrete needs–daily classroom instruction, periodic checkpoints during the year, and annual snapshots of achievement.

Formative Strategies

Purpose: to inform instruction within and between lessons, for both student and teacher.

Characteristics: seamless integration of assessment strategies and instruction by providing immediate feedback helps teachers determine what to do next instructionally and involves students in evaluating their own learning.

- **Student: What do I need to learn before I understand this completely?**
- **Teacher: What learning comes next for this student?**

Benchmark Assessment

Purpose: to diagnose student learning and/or monitor progress locally during the year.

Characteristics: may be teacher, school, district, state, or commercially developed; can be used multiple times during the year to make instructional adjustments for students or groups of students.

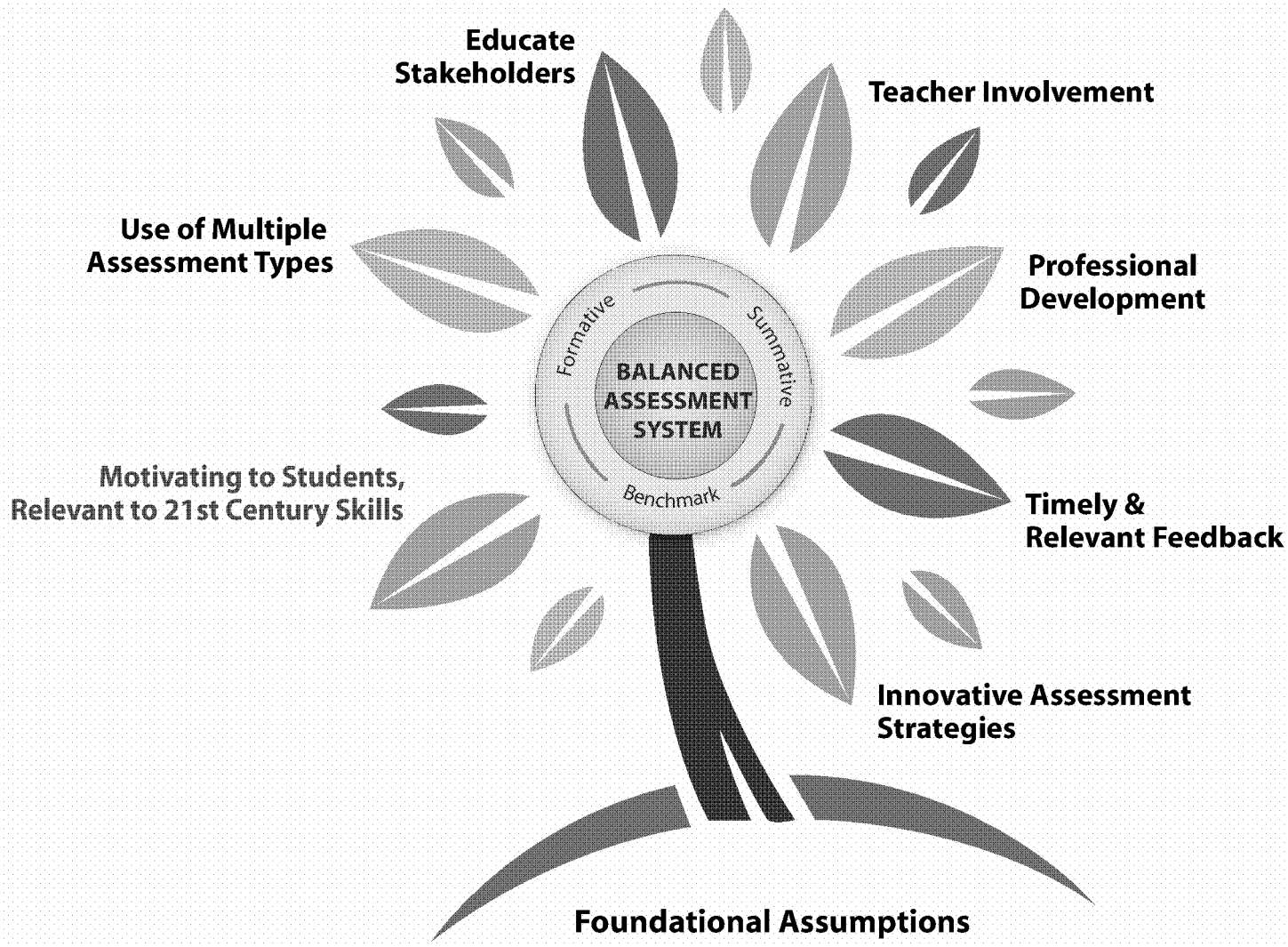
- **Are my students on track? How well are they progressing?**
- **How well is this program/ instructional unit working?**

Summative Assessment

Purpose: to monitor national, state, district, and school progress over time.

Characteristics: standardized administration annually; data is best used at the aggregate level for accountability rather than at the student level, as data is general not specific.

- **Are there any gaps in our district's curriculum and instruction?**
- **How does the achievement of districts and schools compare to one another? How do achievement levels compare over time?**



Foundational Assumptions

- Curriculum, instruction, and assessment must work together •
- Wisconsin must have clear, rigorous, world-class content and achievement standards •
- An effective assessment system has multiple purposes and must balance multiple components •
- Proficiency must not be an endpoint instructionally, nor the only achievement goal for our students •
- The culture and climate of schools must reflect collaboration and transparency around student achievement •

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Foundational Assumptions

The task force identified the following prerequisites to the implementation of task force recommendations. These foundational assumptions need to be in place for the recommendations to be successfully implemented and to have the necessary impact.

1. **Wisconsin must have clear, rigorous, and world-class academic content and achievement standards** that reflect 21st century skills. These standards and expectations should be internationally benchmarked, grade-level specific, and clearly delineated so that students across the state are working toward common goals.
2. **The culture and climate of schools must reflect collaboration and transparency** around student achievement within and across grade levels as well as content areas. Opportunities for exploring and sharing a range of data and instructional strategies should be at the core of school organization.
3. **Curriculum, instruction, and assessment must work together** as a continuous cycle of the learning process. Assessment viewed in isolation will not improve student achievement.
4. **An effective assessment system has multiple components and balances strategies** that meet varied purposes and stakeholder needs. One assessment cannot meet all purposes. The information needs for all stakeholders–from parents to policymakers–must be reflected in the assessment system.
5. Proficiency, as defined in the assessments used for federal accountability, **must not be an end-point instructionally**, nor the only achievement goal for our students.

Recommendations for Implementation

1. **Professional development is critical if assessment is to be effectively used** together with curriculum and instruction to improve student learning. Partnering with higher education and Wisconsin educational organizations to develop assessment literacy, specifically understanding the framework of balanced assessment systems, in teacher preparation programs, graduate programs, and ongoing professional development must be a priority.

2. **Teachers should be deeply involved** in assessment development throughout all parts of the assessment system. Formative classroom strategies should be developed and shared by teachers. Benchmark assessment should be teacher-driven, district-facilitated, and state-supported. Summative assessment should involve teachers in creating assessment strategies, test items, and scoring criteria.

3. The assessment system should have both formative and benchmark components that **provide timely, relevant feedback** about student achievement to be used throughout the year, to identify student needs, and to make changes as needed to instructional programs. Students should have **multiple opportunities** to demonstrate their learning throughout the school year. These should not be tied to state or federal accountability, but rather used on a local and optional basis to inform teachers, parents, and students throughout the learning cycle.

4. All students should be **motivated by relevant, engaging assessments** that are linked to 21st century skills, including high school assessments linked to career/college readiness.

5. **Innovative assessment strategies** should be pursued that would allow for varied demonstrations of student learning. Innovative strategies should offer opportunities for students to demonstrate learning in multiple ways, and need not be limited by traditional testing protocols.

(b)(6)

6. **Summative assessment used for federal and state accountability** should document trends over time. Efficient summative assessment strategies should be considered. Other assessments, such as high-quality **benchmark and formative strategies, are more appropriately used to inform instruction throughout the school year**, and to meet information needs at the classroom, school, and local level.

7. **Educating stakeholders on the meaning and importance of balanced assessment systems** is key. Developing assessment literacy among school boards, district and school administrators, teachers, parents, students, policymakers, and the media must be broad and ongoing.

(b)(6)

The work of this task force concludes at an opportune time for Wisconsin. Our state is well positioned to bring to scale all the components of a statewide system of learning:

- World-class standards that sharpen our expectations for students
- Rich instructional units that engage and challenge students
- A comprehensive assessment system that provides timely and targeted feedback on student, school, and district performance
- A statewide longitudinal data system linking state and local data that allows us to track performance and identify best practices

This system of learning will allow educators to measure student success, identify areas that require targeted interventions, and can facilitate improvement planning for schools and districts alike. A comprehensive system of learning not only reinforces the connections among the critical elements of standards, curriculum, instruction, and assessment—but ensures that Wisconsin students are well-prepared for their futures in a global society.

Tony Evers
State Superintendent

Moving Forward

These recommendations are critical for decision-making around the future of Wisconsin's state assessment system. Assessment needs to be viewed together with content standards, curriculum, instruction, and intervention to form a complete system of learning designed to improve student achievement. Assessment by itself cannot lead to improvements in student learning. Only when results are used in conjunction with other data that affect changes in programs and practices will student achievement improve.

As state and federal opportunities are made available, these recommendations will help the Department of Public Instruction (DPI) map a course for changes to Wisconsin's assessment system. Rather than focusing only on large-scale, summative assessments used for federal and state accountability, DPI will use these recommendations to seek grants and write requests for proposals for future assessment contracts that take a more balanced approach to assessment at the state, district, school, and classroom levels.

Additionally, these recommendations can inform professional development planned by districts, Cooperative Educational Service Agencies (CESAs), professional organizations, and teacher education programs. Professional development that promotes a balanced approach to assessment can help classroom professionals, and training that targets pre-service teachers will benefit our future educators. Principals, administrators, and school boards will also benefit from a focus on balanced assessment, and these audiences should be taken into consideration when delivering professional development around the next generation of assessment.

Next Generation Assessment Task Force Members

Co-Chairs

Tom Still, President
Wisconsin Technology Council

Joan Wade, Administrator
CESA 6, Oshkosh

Task Force Members

Russ Allen, Consultant
Wisconsin Education Association Council

Nell Anderson, Director of Bilingual, ELL, and Equity Programs, Wausau School District

Norm Andrews, President
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Keith Fuchs, Superintendent
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Holly Hart, Charter School Consultant
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Dacia Hopfensperger, Assessment Coordinator
Hartland-Lakeside J3 School District

Peggy Jones, Principal
Bonduel and Navarino Elementary Schools

Kurt Keifer, Director of Planning, Research, and Evaluation, Madison Metropolitan School District

Pam Knorr, Superintendent
Walworth J1 School District

Linda Kunelius, Superintendent
Bayfield School District

Deb Lindsey, Director of Research and Assessment
Milwaukee Public Schools

Phil McDade, Vice President
Monona Grove School Board

Colleen McHugh-Moore, Special Education and Pupil Services Director, Greendale School District

Demond Means, Superintendent
Mequon-Thiensville School District

Laurie Mitchell, Science Teacher
Tomahawk Middle School

Joseph Moylan, Principal
Oconomowoc High School

John Peterson, Special Education Director
Fort Atkinson School District

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Germantown School District

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Chris Van Hoof, Director of Instruction
Clintonville School District

Wendell Waukau, Superintendent
Menominee Indian School District

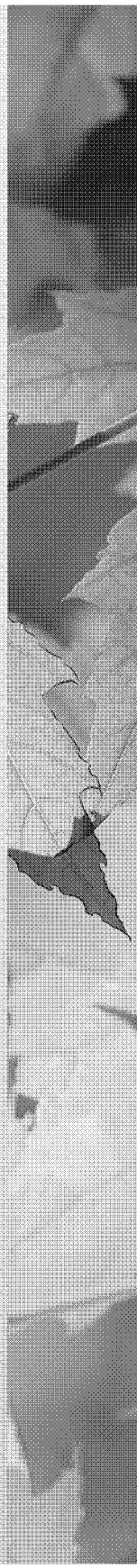
Bart Wepking, Language Arts Teacher
Wheatland Center Elementary School

Lori Weyers, President
Northcentral Technical College

John Whitsett, Director, Curriculum, Instruction, and Assessment, Fond du Lac School District

Jim Wollack, Director, Testing and Evaluation Services, UW-Madison

Betty Womack, UW Board of Regents
Assistant Superintendent of Pupil Services
Kettle Moraine School District



Appendix 13: SMARTER Balanced Assessment Consortium Overview

THE SMARTER BALANCED ASSESSMENT CONSORTIUM

The "Smarter Balanced Assessment Consortium" was formed from a merger of three Consortia that emerged in January 2010 in response to the Race to the Top competition: the Balanced Assessment, MOSAIC, and SMARTER Consortiums, comprising a total of 45 states.

The Consortium's priorities for a new generation assessment system are rooted in a concern for the valid, reliable, and fair assessment of the deep disciplinary understanding and higher-order thinking skills that are increasingly demanded by a knowledge-based economy. These priorities are also rooted in a belief that assessment must support ongoing improvements in instruction and learning, and must be useful for all members of the educational enterprise: students, parents, teachers, school administrators, members of the public, and policymakers.

The Consortium recognizes the need for a system of formative and summative assessments, organized around Common Core standards, that support high-quality learning and the demands of accountability, and that balance concerns for innovative assessment with the need for a fiscally sustainable system that is feasible to implement. The efforts of the Consortium will be organized to accomplish these goals.

Priorities for Assessment

As described below, the Consortium members have agreed to a set of principles that are consistent with those used by educational systems of high-achieving nations and states. These include the following:

1) **Assessments are grounded in a thoughtfully integrated learning system** of standards, curriculum, assessment, instruction, and teacher development. Teachers and other instructional experts are involved in the process of developing formative and summative assessments grounded in the learning standards. These guide professional learning about curriculum, teaching, and assessment. Instructional supports are provided to enable thoughtful teaching. Thus, assessments are provided to schools as part of a well-aligned system that guides and supports a coherent approach to students' and teachers' learning.

2) **Assessments include evidence of actual student performance** on challenging tasks that evaluate standards of 21st Century learning. The assessments will be strategically used to evaluate a broad array of skills and competencies and inform progress toward and acquisition of readiness for higher education and multiple work domains. They emphasize deep knowledge of core concepts within and across the disciplines, problem solving, analysis, synthesis, and critical thinking.

3) **Teachers are integrally involved in the design, development and scoring of assessment items and tasks.** Teachers will participate in the alignment and unpacking of the Common Core Standards and the identification of the standards in the local curriculum. The Consortium will involve teachers in formative and summative assessment development and support moderation of scoring processes to ensure consistency and to enable teachers to deeply understand the standards and to develop stronger curriculum, instruction, and classroom assessment. Assessment literate teachers 1) who have gotten "inside" the Common Core standards, 2) who have taught to the standards, 3) who have learned how to appropriately measure the standards, and 4) who have learned strategies to intervene if students have not measured the standards, will be teachers whose students are learning. Teachers' roles include the construction and review of items/tasks, the definition of scoring guides, selection of student work exemplars, and scoring.

4) **Technology is designed to support assessment and learning systems.** Technology is used to enhance these assessments in a number of ways, by: delivering the assessments; enabling adaptive technologies to better measure student abilities across the full spectrum of student performance and evaluate growth in learning; supporting on-line simulation tasks that test higher-order abilities, allowing

students to search for information or manipulate variables and tracking information about the students' problem-solving processes; and, in some cases, scoring the results or delivering the responses to trained scorers / teachers to access from an electronic platform. Such a platform can support training and calibration of scorers and moderation of scores, as well as the efficient aggregation of results in ways that support reporting and research about the responses.

5) Assessments are structured to continuously **improve teaching and learning**.
Assessment *as*, *of*, and *for* learning is designed to develop understanding of what learning standards are, what high-quality work looks like, and what is needed for student learning. It is also designed to foster instruction that supports transferable knowledge and skills. These outcomes are enabled by several features of the assessment system:

- 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 are sources of ongoing professional development that improve teaching.

- Developing both on-demand and curriculum-embedded assessments around learning progressions allows teachers to see where students are on multiple dimensions of learning and to strategically support their progress.

Goals for the Assessment System

The *SMARTER BALANCED* Consortium intends to build a system of assessment upon the Common Core Standards in English language arts and mathematics with the intent that all students across this consortium of states will know their progress toward college and career readiness. These states believe that the connection between the student, the teacher, and the curriculum, instruction and assessment is the foundation for success for the Common Core Standards, and that working together collaboratively to accomplish these tasks is critical.

The consortium is committed to the development of a system that is state led and will provide:

- **Common summative tests in English language arts and Mathematics** that assess student progress and mastery of core concepts and critical transferable skills using a range of formats: selected-response and constructed-response items, and performance tasks, designed together to assess the full range of standards.

- **Formative assessment tools and supports**, that are shaped around curriculum guidance which includes learning progressions, and that link evidence of student competencies to the summative system.

- Focused **professional development** around curriculum and lesson development as well as scoring and examination of student work

- **Reporting systems** that provide first-hand evidence of student performances, as well as aggregated scores by dimensions of learning, student characteristics, classrooms, schools, and districts.

- A governance structure that ensures a strong voice for state administrators, policy makers, school practitioners, and technical advisors to ensure an optimum balance of assessment quality, efficiency, costs, and time.

Principles

This system and its development will incorporate:

- A variety of item types to measure the full range of Common Core Standards, including those that address higher-order cognitive skills and abilities;
- A plan to scale up over time to incorporate curriculum-embedded performance and complex computer based simulations;
- Online adaptive solutions for summative and interim assessments to provide assessments that meet the needs of all students;
- Support for structured transitions from paper/pencil to online adaptive assessments, with a backup paper version available for those states who need it when the assessment initially scales up;
- A systematic solution to informed decision-making by including formative strategies, benchmark/interim assessments, and summative assessments;
- High quality curriculum and instructional supports for teachers;
- Inclusion of teachers in design, development and implementation of the system;
- Adherence to professional standards for assessment;
- Principles of universal design in the design and development process for **all** students; and
- Optional components that states can use based on their needs.

Design Agreements

The Consortium will develop a common summative assessment that will provide comparable results across all of the participating states. This comparability will be achieved by applying psychometrically sound scaling and equating procedures to items and a modest number of performance tasks of limited scope (e.g. no more than a few days to complete) that will be used in common across consortium states. Consortium states will use commonly determined performance standards that are internationally benchmarked.

In addition, some states will work on pushing the edge of the envelope with respect to more ambitious performance assessments – which may be used in common by one or more sub-consortia of states – and, in the same way, others will undertake more ambitious work with respect to computer adaptive testing and simulations. This design allows the Consortium to create at one time, a new summative assessment used by a large number of states within the five-year horizon of the federal grant, and to create even more leading-edge assessment components used by sub-consortia of states who decide to offer augmented assessments. Common use of these augmented assessments across subsets of states would result in comparable results for those components across those states, without disrupting the existence of a leaner, common summative assessment across all the states in the Consortium.

Current understandings about the nature of the assessment items, tasks, and strategies are noted below:

Objective machine-scored items

- Movement toward more analytic types of selected-response and constructed-response items that are easily scored, including computer simulations.

Open-Ended Constructed response

Artificial intelligence (AI) scored items.

- Work to establish efficient means of developing items and reliable scoring processes for complex responses scored by computer.

- Build and maintain the confidence teachers have in the system by incorporating a systematic read-behind by teachers.

Human scored constructed response

- Develop training and moderated scoring processes for teacher scoring of items that cannot be scored by AI and for additional scoring of AI items.

- A strategic mix of teacher and machine scoring should be created to take advantage of efficiencies and reduce burden, while also ensuring teacher participation and learning.

Curriculum-embedded performance assessments

- The common summative assessment would incorporate performance events of modest scope (1-5 days) to evaluate the standards more fully.

- Some states will form a workgroup to go further with rich performance tasks that can make advances in performance assessments on behalf of the consortium

- These more ambitious performance assessments could be included for individual state accountability systems (and for comparisons across a subset of states, if desired) until a greater proportion of states has capacity for implementation.

Advanced Computer based simulations

- Some states will form a workgroup to make advances in computer based simulations on behalf of the consortium

- These simulations could be included in individual state accountability systems until a greater proportion of states have capacity for implementation.

Appendix 14: Memorandum of Understanding for the SMARTER Balanced Assessment Consortium

Memorandum of Understanding

SMARTER Balanced Assessment Consortium

Race to the Top Fund Assessment Program: Comprehensive Assessment Systems Grant Application

CFDA Number: 84.395B

This Memorandum of Understanding ("MOU") is entered as of **June 1, 2010**, by and between the **SMARTER Balanced Assessment Consortium** (the "Consortium") and the **State of Wisconsin**, which has elected to participate in the Consortium as (check one)

_____ An **Advisory** State (description in section e),

OR

__X__ A **Governing** State (description in section e),

pursuant to the Notice Inviting Applications for the Race to the Top Fund Assessment Program for the Comprehensive Assessment Systems Grant Application (Category A), henceforth referred to as the "Program," as published in the Federal Register on April 9, 2010 (75 FR 18171-18185.

The purpose of this MOU is to

(a) Describe the Consortium vision and principles,
(b) Detail the responsibilities of States in the Consortium,
(c) Detail the responsibilities of the Consortium,
(d) Describe the management of Consortium funds,
(e) Describe the governance structure and activities of States in the Consortium,
(f) Describe State entrance, exit, and status change,
(g) Describe a plan for identifying existing State barriers, and
(h) Bind each State in the Consortium to every statement and assurance made in the application through the following signature blocks:
    (i)(A) Advisory State Assurance
    OR
    (i)(B) Governing State Assurance
    AND
    (ii) State Procurement Officer

(a) Consortium Vision and Principles

The Consortium's priorities for a new generation assessment system are rooted in a concern for the valid, reliable, and fair assessment of the deep disciplinary understanding and higher-order thinking skills that are increasingly demanded by a knowledge-based economy. These priorities are also rooted in a belief that assessment must support ongoing improvements in instruction and learning, and must be useful for all members of the educational enterprise: students, parents, teachers, school administrators, members of the public, and policymakers.

The Consortium intends to build a flexible system of assessment based upon the Common Core Standards in English language arts and mathematics with the intent that all students across this Consortium of States will know their progress toward college and career readiness.

The Consortium recognizes the need for a system of formative, interim, and summative assessments—organized around the Common Core Standards—that support high-quality learning, the demands of accountability, and that balance concerns for innovative assessment with the need for a fiscally sustainable system that is feasible to implement. The efforts of the Consortium will be organized to accomplish these goals.

The comprehensive assessment system developed by the Consortium will include the following key elements and principles:

1. A Comprehensive Assessment System that will be grounded in a thoughtfully integrated learning system of standards, curriculum, assessment, instruction and teacher development that will inform decision-making by including formative strategies, interim assessments, and summative assessments.

2. The assessment system will measure the full range of the Common Core Standards including those that measure higher-order skills and will inform progress toward and acquisition of readiness for higher education and multiple work domains. The system will emphasize deep knowledge of core concepts within and across the disciplines, problem solving, analysis, synthesis, and critical thinking.

3. Teachers will be involved in the design, development, and scoring of assessment items and tasks. Teachers will participate in the alignment of the Common Core Standards and the identification of the standards in the local curriculum.

4. Technology will be used to enable adaptive technologies to better measure student abilities across the full spectrum of student performance and evaluate growth in learning; to support online simulation tasks that test higher-order abilities; to score the results; and to deliver the responses to trained scorers/teachers to access from an

electronic platform. Technology applications will be designed to maximize interoperability across user platforms, and will utilize open-source development to the greatest extent possible.

5. A sophisticated design will yield scores to support evaluations of student growth, as well as school, teacher, and principal effectiveness in an efficient manner.

6. On-demand and curriculum-embedded assessments will be incorporated over time to allow teachers to see where students are on multiple dimensions of learning and to strategically support their progress.

7. All components of the system will 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.

8. Optional components will allow States flexibility to meet their individual needs.

(b) Responsibilities of States in the Consortium

Each State agrees to the following element of the Consortium's Assessment System:

- Adopt the Common Core Standards, which are college- and career-ready standards, and to which the Consortium's assessment system will be aligned, no later than December 31, 2011.

Each State that is a member of the Consortium in 2014–2015 also agrees to the following:

- Adopt common achievement standards no later than the 2014–2015 school year,
- Fully implement statewide the Consortium summative assessment in grades 3-8 and high school for both mathematics and English language arts no later than the 2014–2015 school year,
- Adhere to the governance as outlined in this document,
- Agree to support the decisions of the Consortium,
- Agree to follow agreed-upon timelines,
- Be willing to participate in the decision-making process and, if a Governing State, final decision, and
- Identify and implement a plan to address barriers in State law, statute, regulation, or policy to implementing the proposed assessment system and to addressing any such barriers prior to full implementation of the summative assessment components of the system.

(c) Responsibilities of the Consortium

The Consortium will provide the following by the 2014-15 school year:

1. A comprehensively designed assessment system that includes a strategic use of a variety of item types and performance assessments of modest scope to assess the full range of the Common Core Standards with an emphasis on problem solving, analysis, synthesis, and critical thinking.

2. An assessment system that incorporates a required summative assessment with optional formative/benchmark components which provides accurate assessment of all students (as defined in the Federal notice) including students with disabilities, English learners, and low- and high-performing students.

3. Except as described above, a summative assessment that will be administered as a computer adaptive assessment and include a minimum of 1–2 performance assessments of modest scope.

4. Psychometrically sound scaling and equating procedures based on a combination of objectively scored items, constructed-response items, and a modest number of performance tasks of limited scope (e.g., no more than a few days to complete).

5. Reliable, valid, and fair scores for students and groups that can be used to evaluate student achievement and year-to-year growth; determine school/district/state effectiveness for Title I ESEA; and better understand the effectiveness and professional development needs of teachers and principals.

6. Achievement standards and achievement level descriptors that are internationally benchmarked.

7. Access for the State or its authorized delegate to a secure item and task bank that includes psychometric attributes required to score the assessment in a comparable manner with other State members, and access to other applications determined to be essential to the implementation of the system.

8. Online administration with limited support for paper-and-pencil administration through the end of the 2016–17 school year. States using the paper-and-pencil option will be responsible for any unique costs associated with the development and administration of the paper-and-pencil assessments.

9. Formative assessment tools and supports that are developed to support curricular goals, which include learning progressions, and that link evidence of student competencies to the summative system.

10. Professional development focused on curriculum and lesson development as well as scoring and examination of student work.

11. A representative governance structure that ensures a strong voice for State administrators, policymakers, school practitioners, and technical advisors to ensure an optimum balance of assessment quality, efficiency, costs, and time. The governance body will be responsible for implementing plans that are consistent with this MOU, but may make changes as necessary through a formal adoption process.

12. Through at least the 2013–14 school year, a Project Management Partner (PMP) that will manage the logistics and planning on behalf of the Consortium and that will monitor for the U.S. Department of Education the progress of deliverables of the proposal. The proposed PMP will be identified no later than August 4, 2010.

13. By September 1, 2014, a financial plan will be approved by the Governing States that will ensure the Consortium is efficient, effective, and sustainable. The plan will include as revenue at a minimum, State contributions, federal grants, and private donations and fees to non-State members as allowable by the U.S. Department of Education.

14. A consolidated data reporting system that enhances parent, student, teacher, principal, district, and State understanding of student progress toward college- and career-readiness.

15. Throughout the 2013–14 school year, access to an online test administration application, student constructed-response scoring application and secure test administration browsers that can be used by the Total State Membership to administer the assessment. The Consortium will procure resources necessary to develop and field test the system. However, States will be responsible for any hardware and vendor services necessary to implement the operational assessment. Based on a review of options and the finance plan, the Consortium may elect to jointly procure these services on behalf of the Total State Membership.

(d) Management of Consortium Funds

All financial activities will be governed by the laws and rules of the State of Washington, acting in the role of Lead Procurement State/Lead State, and in accordance with 34 CFR 80.36. Additionally, Washington is prepared to follow the guidelines for grant management associated with the American Recovery and Reinvestment Act (ARRA), and will be legally responsible for the use of grant funds and for ensuring that the project is carried out by the Consortium in accordance with Federal requirements. Washington has already established an ARRA Quarterly reporting system (also referred to as *1512 Reporting*).

Per Washington statute, the basis of how funding management actually transpires is dictated by the method of grant dollar allocation, whether upfront distribution or pay-out linked to actual reimbursables. Washington functions under the latter format, generating claims against grant funds based on qualifying reimbursables submitted on behalf of staff or clients, physical purchases, or contracted services. Washington's role as Lead Procurement State/Lead State for the Consortium is not viewed any differently, as monetary exchanges will be executed against appropriate and qualifying reimbursables aligned to expenditure arrangements (i.e., contracts) made with vendors or contractors operating under "personal service contracts," whether individuals, private companies, government agencies, or educational institutions.

Washington, like most States, is audited regularly by the federal government for the accountability of federal grant funds, and has for the past five years been without an audit finding. Even with the additional potential for review and scrutiny associated with ARRA funding, Washington has its fiscal monitoring and control systems in place to manage the Consortium needs.

- As part of a comprehensive system of fiscal management, Washington's accounting practices are stipulated in the State Administrative and Accounting Manual (SAAM) managed by the State's Office of Financial Management. The SAAM provides details and administrative procedures required of all Washington State agencies for the procurement of goods and services. As such, the State's educational agency is required to follow the SAAM; actions taken to manage the fiscal activities of the Consortium will, likewise, adhere to policies and procedures outlined in the SAAM.
- For information on the associated contracting rules that Washington will adhere to while serving as fiscal agent on behalf of the Consortium, refer to the Revised Code of Washington (RCW) 39.29 "Personal Service Contracts." Regulations and policies authorized by this RCW are established by the State's Office of Financial Management, and can be found in the SAAM.

(e) Governance Structure and Activities of States in the Consortium

As shown in the SMARTER Balanced Assessment Consortium governance structure; the Total State Membership of the Consortium includes Governing and Advisory States, with Washington serving in the role of Lead Procurement State/Lead State on behalf of the Consortium.

A **Governing** State is a State that:

- Has fully committed to this Consortium only and met the qualifications specified in this document,
- Is a member of only one Consortium applying for a grant in the Program,
- Has an active role in policy decision-making for the Consortium,
- Provides a representative to serve on the Steering Committee,
- Provides a representative(s) to serve on one or more Work Groups,
- Approves the Steering Committee Members and the Executive Committee Members,
- Participates in the final decision-making of the following:
    - Changes in Governance and other official documents,
    - Specific Design elements, and
    - Other issues that may arise.

An **Advisory** State is a State that:

- Has not fully committed to any Consortium but supports the work of this Consortium,
- Participates in all Consortium activities but does not have a vote unless the Steering Committee deems it beneficial to gather input on decisions or chooses to have the Total Membership vote on an issue,
- May contribute to policy, logistical, and implementation discussions that are necessary to fully operationalize the SMARTER Balanced Assessment System, and
- Is encouraged to participate in the Work Groups.

Organizational Structure

Steering Committee

The Steering Committee is comprised of one representative from each Governing State in the Consortium. Committee members may be a chief or his/her designee. Steering Committee Members must meet the following criteria:

- Be from a Governing State,
- Have prior experience in either the design or implementation of curriculum and/or assessment systems at the policy or implementation level, and
- Must have willingness to serve as the liaison between the Total State Membership and Working Groups.

Steering Committee Responsibilities

- Determine the broad picture of what the assessment system will look like,

- Receive regular reports from the Project Management Partner, the Policy Coordinator, and the Content Advisor,
- Determine the issues to be presented to the Governing and/or Advisory States,
- Oversee the expenditure of funds in collaboration with the Lead Procurement State/Lead State,
- Operationalize the plan to transition from the proposal governance to implementation governance, and
- Evaluate and recommend successful contract proposals for approval by the Lead Procurement State/Lead State.

Executive Committee

- The Executive Committee is made up of the Co-Chairs of the Executive Committee, a representative from the Lead Procurement State/Lead State, a representative from higher education and one representative each from four Governing States. The four Governing State representatives will be selected by the Steering Committee. The Higher Education representative will be selected by the Higher Education Advisory Group, as defined in the Consortium Governance document.
- For the first year, the Steering Committee will vote on four representatives, one each from four Governing States. The two representatives with the most votes will serve for three years and the two representatives with the second highest votes will serve for two years. This process will allow for the rotation of two new representatives each year. If an individual is unable to complete the full term of office, then the above process will occur to choose an individual to serve for the remainder of the term of office.

Executive Committee Responsibilities

- Oversee development of SMARTER Balanced Comprehensive Assessment System,
- Provide oversight of the Project Management Partner,
- Provide oversight of the Policy Coordinator,
- Provide oversight of the Lead Procurement State/Lead State,
- Work with project staff to develop agendas,
- Resolve issues,
- Determine what issues/decisions are presented to the Steering Committee, Advisory and/or Governing States for decisions/votes,
- Oversee the expenditure of funds, in collaboration with the Lead Procurement State/Lead State, and
- Receive and act on special and regular reports from the Project Management Partner, the Policy Coordinator, the Content Advisor, and the Lead Procurement State/Lead State.

Executive Committee Co-Chairs

- Two Co-chairs will be selected from the Steering Committee States. The two Co-chairs must be from two different states. Co-chairs will work closely with the Project Management Partner. Steering Committee members wishing to serve as Executive Committee Co-chairs will submit in writing to the Project Management Partner their willingness to serve. They will need to provide a document signed by their State Chief indicating State support for this role. The Project Management Partner will then prepare a ballot of interested individuals. Each Steering Committee member will vote on the two individuals they wish to serve as Co-chair. The individual with the most votes will serve as the new Co-chair.
- Each Co-chair will serve for two years on a rotating basis. For the first year, the Steering committee will vote on two individuals and the one individual with the most votes will serve a three-year term and the individual with the second highest number of votes will serve a two-year term.
- If an individual is unable to complete the full term of office, then the above process will occur to choose an individual to serve for the remainder of the term of office.

Executive Committee Co-Chair Responsibilities

- Set the Steering Committee agendas,
- Set the Executive Committee agenda,
- Lead the Executive Committee meetings,
- Lead the Steering Committee meetings,
- Oversee the work of the Executive Committee,
- Oversee the work of the Steering Committee,
- Coordinate with the Project Management Partner,
- Coordinate with Content Advisor,
- Coordinate with Policy coordinator,
- Coordinate with the Technical Advisory Committee (TAC), and
- Coordinate with Executive Committee to provide oversight to the Consortium.

Decision-making

Consensus will be the goal of all decisions. Major decisions that do not reach consensus will go to a simple majority vote. The Steering Committee will determine what issues will be referred to the Total State Membership. Each member of each group (Advisory/Governing States, Steering Committee, Executive Committee) will have one vote when votes are conducted within each group. If there is only a one to three vote difference, the issue will be re-examined to seek greater consensus. The Steering Committee will be responsible for preparing additional information as to the pros and cons of the issue to assist voting States in developing consensus and reaching a final decision. The Steering Committee may delegate this responsibility to the Executive Committee. The Executive Committee will decide which decisions or issues are votes to

be taken to the Steering Committee. The Steering Committee makes the decision to take issues to the full Membership for a vote.

The Steering Committee and the Governance/Finance work group will collaborate with each Work Group to determine the hierarchy of the decision-making by each group in the organizational structure.

Work Groups

The Work Groups are comprised of chiefs, assessment directors, assessment staff, curriculum specialists, professional development specialists, technical advisors and other specialists as needed from States. Participation on a workgroup will require varying amounts of time depending on the task. Individuals interested in participating on a Work Group should submit their request in writing to the Project Management Partner indicating their preferred subgroup. All Governing States are asked to commit to one or more Work Groups based on skills, expertise, and interest within the State to maximize contributions and distribute expertise and responsibilities efficiently and effectively. The Consortium has established the following Work Groups:

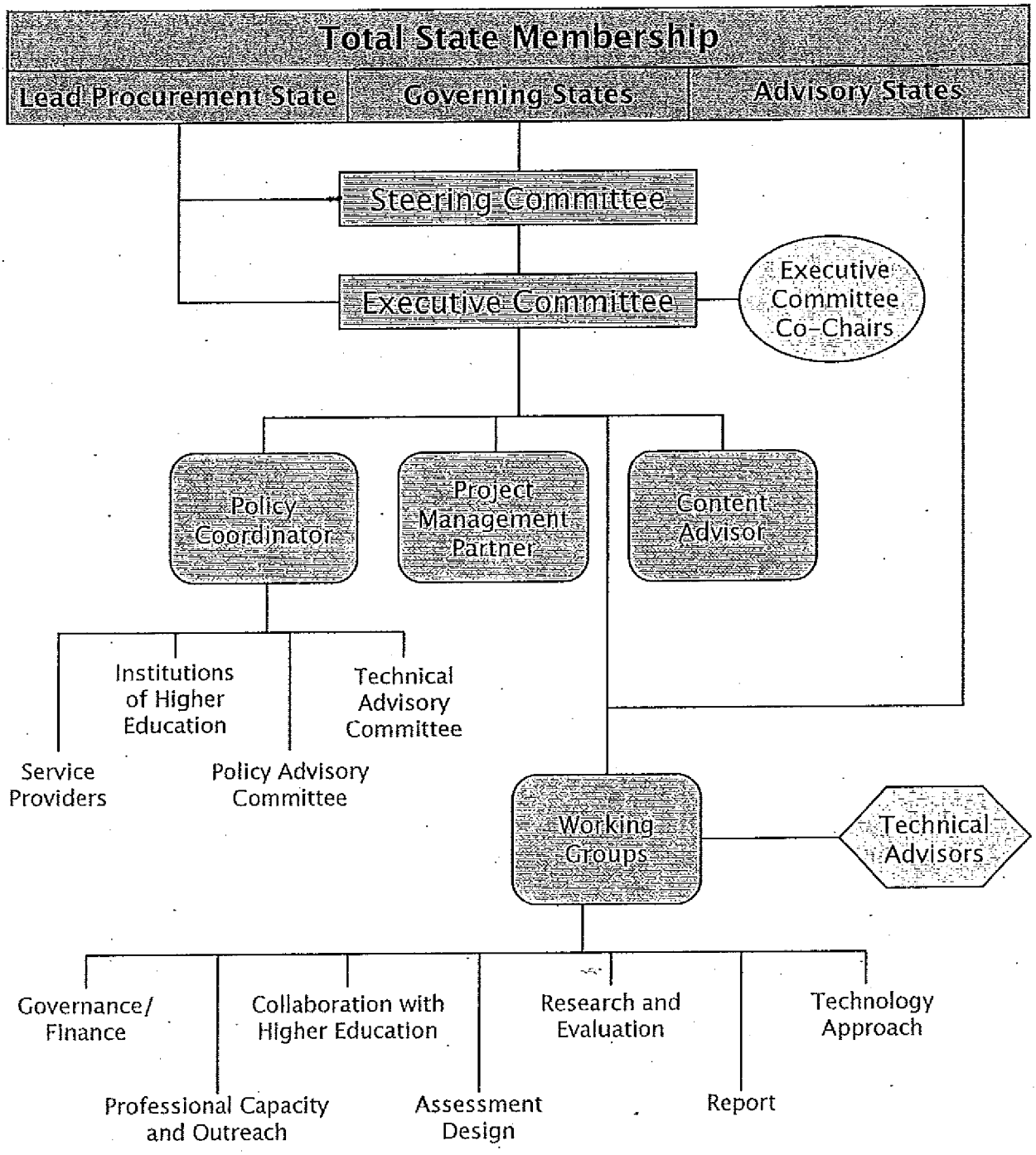
- Governance/Finance,
- Assessment Design,
- Research and Evaluation,
- Report,
- Technology Approach,
- Professional Capacity and Outreach, and
- Collaboration with Higher Education.

The Consortium will also support the work of the Work Groups through a Technical Advisory Committee (TAC). The Policy Coordinator in collaboration with the Steering Committee will create various groups as needed to advise the Steering Committee and the Total State Membership. Initial groups will include

- Institutions of Higher Education,
- Technical Advisory Committee,
- Policy Advisory Committee, and
- Service Providers.

An organizational chart showing the groups described above is provided on the next page.

SMARTER Balanced Assessment Consortium Organizational Structure



(f) State Entrance, Exit, and Status Change

This MOU shall become effective as of the date first written above upon signature by both the Consortium and the Lead Procurement State/Lead State (Washington) and remain in force until the conclusion of the Program, unless terminated earlier in writing by the Consortium as set forth below.

Entrance into Consortium

Entrance into the Smarter Balanced Assessment Consortium is assured when:

- The level of membership is declared and signatures are secured on the MOU from the State's Commissioner, State Superintendent, or Chief; Governor; and President/Chair of the State Board of Education (if the State has one);
- The signed MOU is submitted to the Consortium Grant Project Manager (until June 23) and then the Project Management Partner after August 4, 2010;
- The Advisory and Governing States agree to and adhere to the requirements of the governance;
- The State's Chief Procurement Officer has reviewed its applicable procurement rules and provided assurance that it may participate in and make procurements through the Consortium;
- The State is committed to implement a plan to identify any existing barriers in State law, statute, regulation, or policy to implementing the proposed assessment system and to addressing any such barriers prior to full implementation of the summative assessment components of the system; and
- The State agrees to support all decisions made prior to the State joining the Consortium.

After receipt of the grant award, any request for entrance into the Consortium must be approved by the Executive Committee. Upon approval, the Project Management Partner will then submit a change of membership to the USED for approval. A State may begin participating in the decision-making process after receipt of the MOU.

Exit from Consortium

Any State may leave the Consortium without cause, but must comply with the following exit process:

- A State requesting an exit from the Consortium must submit in writing their request and reasons for the exit request,
- The written explanation must include the statutory or policy reasons for the exit,
- The written request must be submitted to the Project Management Partner with the same signatures as required for the MOU,
- The Executive Committee will act upon the request within a week of the request, and
- Upon approval of the request, the Project Management Partner will then submit a change of membership to the USED for approval.

Changing Roles in the Consortium

A State desiring to change from an Advisory State to a Governing State or from a Governing State to an Advisory State may do so under the following conditions:

- A State requesting a role change in the Consortium must submit in writing their request and reasons for the request,
- The written request must be submitted to the Project Management Partner with the same signatures as required for the MOU, and
- The Executive Committee will act upon the request within a week of the request and submit to the USED for approval.

(g) Plan for Identifying Existing State Barriers

Each State agrees to identify existing barriers in State laws, statutes, regulations, or policies by noting the barrier and the plan to remove the barrier. Each State agrees to use the table below as a planning tool for identifying existing barriers. States may choose to include any known barriers in the table below at the time of signing this MOU.

Barrier	Issue/Risk of Issue (if known)	Statute, Regulation, or Policy	Governing Body with Authority to Remove Barrier	Approximate Date to Initiate Action	Target Date for Removal of Barrier	Comments

[remainder of page intentionally left blank]

(h) Bind each State in the Consortium to every statement and assurance made in the application through the following signature blocks

(h)(i)(A) ADVISORY STATE SIGNATURE BLOCK for Race to the Top Fund Assessment Program Comprehensive Assessment Systems Grant Application Assurances. *(Required from all "Advisory States" in the Consortium.)* As an Advisory State in the SMARTER Balanced Assessment Consortium, I have read and understand the roles and responsibilities of Advisory States, and agree to be bound by the statements and assurances made in the application.	
State Name:	
Governor or Authorized Representative of the Governor (Printed Name):	Telephone:
Signature of Governor or Authorized Representative of the Governor:	Date:
Chief State School Officer (Printed Name):	Telephone:
Signature of the Chief State School Officer:	Date:
President of the State Board of Education, if applicable (Printed Name):	Telephone:
Signature of the President of the State Board of Education, if applicable:	Date:

(h)(i)(B) **GOVERNING STATE** SIGNATURE BLOCK for Race to the Top Fund Assessment Program Comprehensive Assessment Systems Grant Application Assurances *(Required from all "Governing States" in the Consortium.)* As a Governing State in the SMARTER Balanced Assessment Consortium, I have read and understand the roles and responsibilities of Governing States, and agree to be bound by the statements and assurances made in the application. I further certify that as a Governing State I am fully committed to the application and will support its implementation.	
State Name: **Wisconsin**	
Governor or Authorized Representative of the Governor (Printed Name): JIM DOYLE	Telephone: 608-266-1212
Signature of Governor or Authorized Representative of the Governor:	Date: 5/24/10
Chief State School Officer (Printed Name): Tony Evers	Telephone: 608 266-8687
Signature of the Chief State School Officer:	Date: 5/21/10
President of the State Board of Education, if applicable (Printed Name): **N.A.**	Telephone:
Signature of the President of the State Board of Education, if applicable: **N.A.**	Date:

(h)(ii) STATE PROCUREMENT OFFICER SIGNATURE BLOCK for Race to the Top Fund Assessment Program Comprehensive Assessment Systems Grant Application Assurances. *(Required from all States in the Consortium.)* I certify that I have reviewed the applicable procurement rules for my State and have determined that it may participate in and make procurements through the SMARTER Balanced Assessment Consortium.	
State Name: **Wisconsin**	
State's chief procurement official (or designee), (Printed Name): Helen McCain	Telephone: 608-267-9634
Signature of State's chief procurement official (or designee),: Helen McCain	Date: 6/27/10

Appendix 15: SMARTER Balanced Assessment Consortium List of Participating States

States Participating in the SMARTER Balanced Consortium (as of 5/12/10)

State	Date	Member/Governing State
Colorado	May 12	Member
Connecticut	April 13	Member
Delaware	April 14	Member
Georgia	April 28	Member
Hawaii	April 15	Member
Idaho	April 15	Governing
Illinois	April 15	Member
Iowa	April 14	Member
Kansas	April 15	Governing
Kentucky	April 15	Member
Maine	April 14	Governing
Michigan	April 16	Governing
Minnesota	April 27	Governing
Missouri	April 14	Governing
Montana	April 14	Member
Nebraska	April 13	Member
Nevada	April 19	Member
New Hampshire	April 19	Member
New Jersey	April 15	Member
New Mexico	April 13	Member
North Carolina	April 15	Governing
North Dakota	April 15	Member
Ohio	April 20	Member
Oregon	April 15	Governing
Pennsylvania	April 27	Member
South Carolina	April 20	Member
South Dakota	April 15	Member
Utah	April 14	Governing
Vermont	April 15	Governing
Washington	April 14	Governing
West Virginia	April 13	Governing
Wisconsin	April 14	Governing
Wyoming	April 14	Member
Total		**Member 33 Governing 13**

Appendix 16: UWS-WDPI Memorandum of Agreement for a Single Statewide Student Identifier

The following information is intended to memorialize the agreement between the Board of Regents of the University of Wisconsin System (UWS) and Wisconsin Department of Public Instruction (WDPI) regarding sharing, collection and storage of a statewide student identifier number.

1. All students in Wisconsin K-12 public schools are assigned a single, unique Wisconsin Student Number (WSN). This WSN is assigned using the Wisconsin Student Locator System (WSLS) that is developed, maintained, and controlled by WSN. The WSN is considered personally identifiable information under federal educational privacy law (Family Educational Rights and Privacy Act "FERPA" 34 CFR 99.3, Definitions) and therefore must be kept confidential unless explicitly permitted by law.

2. WDPI and UWS have each agreed in the "Compact to Establish, Maintain and Govern Wisconsin's Longitudinal Data System for Student Records" to establish and maintain an interoperable data system comprised of student records under the control of its organization. Interoperability may be achieved through the use of a statewide student identifier.

3. Pursuant to the Compact, WDPI and UWS agree to share information necessary for WDPI to provide a WSN, where one exists, to UWS for students currently enrolled in a campus in the UWS.

4. UWS and WDPI agree to maintain the confidentiality of the personally identifiable information consistent with the requirements in FERPA, 34 CFR 99 and its internal policies regarding storage, transmission and retention.

5. UWS agrees it will incorporate the WSN into its record system in such a way as to enable the future sharing of data so that data exchanges pursuant to specific data sharing agreements can be done using only WSN and no other personally identifiable information, such as student's name; the name of the student's parent or other family members; the address of the student or student's family; a personal identifier, such as the student's social security number, student number, or biometric record; or other indirect identifiers, such as the student's date of birth, place of birth, and mother's maiden name.

Appendix 17: VARC Data Use Agreement

DATA USE AGREEMENT BETWEEN

Wisconsin Department of Public Instruction

and

University of Wisconsin
Wisconsin Center for Education Research (WCER)
Value-Added Research Center (VARC)

This Data Use Agreement is made and entered into on 09/14/09 by and between the **Wisconsin Department of Public Instruction (DPI)**, hereafter "Holder," and **University of Wisconsin Value-Added Research Center (VARC)**, hereafter "Recipient."

1. This agreement sets forth the terms and conditions pursuant to which Holder will disclose certain protected educational information, hereafter "PEI," in the form of a Limited Data Set to the Recipient.

2. Terms used, but not otherwise defined, in this Agreement shall have the meaning given the terms in the **United States Department of Education Regulations** 20 U.S.C. § 1232g; 34 CFR Part 99.

3. Purpose
   3.1 The statewide data are required to provide an important reference group for value-added analysis. Large districts, such as Milwaukee and Madison, require an external reference group to determine, for example, whether an "above average" school in the district is also "above average" in the state as a whole. Smaller districts and CESAs require the state reference group for the same reason, and for the additional reason that smaller districts with fewer schools have fewer bases for comparison without the state reference group.

   3.2 The VARC analysis provides information about both attainment and growth that can be used to improve educational outcomes. Including student variables such as economic status allows the model to control for student differences, thereby allowing "apples to apples" comparisons necessary to make inferences about school effectiveness. This work is expected to assist districts with data-informed decision making, promote assessment literacy, and improve our understanding of value-added modeling for various educational entities. The modeling done by VARC is transparent and subject to review by researchers and practitioners.

4. Permitted Uses and Disclosures
   4.1 Except as otherwise specified herein, Recipient may make all uses and disclosures of the Limited Data Sets necessary to conduct the research described herein:

   As a follow-up to the Wisconsin Statewide Value-Added Demonstration project, and in consultation with districts and Cooperative Education Service Agencies (CESAs), VARC proposes to make value-added determinations for all Wisconsin public schools, and to provide this information to DPI in a data file that meets the

requirements defined in section 5.7. To accomplish this, Holder will provide Recipient the Limited Data Set. Recipient may use the Limited Data Set in their contracted work with Wisconsin school districts, providing Recipient and contracted districts comply with district, state, and federal privacy rules (see section 5.5); and that Recipient provides an annual summary of this contracted work to Holder (see section 5.9).

4.2 In addition to the Recipient, the individuals, or classes of individuals, who are permitted to use or receive the Limited Data Set for purposes of the Research Project include: Robert Meyer, Ph.D., (Principal Investigator); Michael Christian, Ph.D.; Chris Thorn, Ph.D.; and other VARC staff directly involved with the collection and/or analysis of data. To the extent that the classes of persons are not part of the Recipient's workforce and are directly involved in the Research Project, the Recipient shall enter into a data agreement with the other classes of persons before such release of the Limited Data Sets.

5. Recipient Responsibilities

5.1 Recipient will not use or disclose the Limited Data Set for any purpose other than permitted by this Agreement pertaining to the Research Project or as required by law. If disclosure of data of any kind is deemed necessary it will take place only after prior notification of the Wisconsin Department of Public Instruction.

5.2 Recipient will use appropriate administrative, physical and technical safeguards to prevent use or disclosure of the Limited Data Set other than as provided for by this Agreement.

5.3 Recipient will report to the Holder any use or disclosure of the Limited Data Set not provided for by this Agreement of which the Recipient becomes aware within 24 hours of becoming aware of such use or disclosure.

5.4 Recipient will ensure that any agent, including a subcontractor, to whom it provides the Limited Data Set, agrees to the same restrictions and conditions that apply through this Agreement to the Recipient with respect to the Limited Data Set.

5.5 Recipient will not identify the information contained in the Limited Data Set. Any reports or materials developed by Recipient or subcontractors that use data provided under this agreement will not contain any personally identifiable information that is protected by the Family Educational Rights and Privacy Act (FERPA), 34 CFR 99; sec. 118.125 Wisconsin statutes; and low income information under the National School Lunch Act, 42 USC 1758(b)(2)(C)(iii) to (v). Recipient shall ensure that all reports and materials developed will include no personally identifiable information. Recipient shall implement suppression rules that prevent both direct and indirect disclosure of personally identifiable student information. Recipient will make these suppression rules available to Holder upon request.

5.6 Recipient will not contact the individuals who are the subject of the PEI contained in the Limited Data Set.

5.7 Recipient will provide to Holder, within 90 days of receiving the Limited Data Set, or on a date agreed upon by both parties, a data file containing the output of the statewide value-added analysis ("Results"). The Results shall remain the property of Recipient. Recipient grants to Holder at no cost a non-exclusive, non-transferable right to use, reuse, copy, and create derivative works of the Results, as Holder determines, at Holder's sole discretion. The format and content of the output file are to be mutually agreed upon, but shall at a minimum contain data required to produce a "value-added and attainment quadrant" for each school and district in the state against the state average (see sample reports in Meyer, et al., *Wisconsin Value-Added Model: A Demonstration Project Final Report*, May 2009). The output file shall include slope coefficients and standard errors for demographic variables at the state level. The output file shall include, for each school and district in the state, for both Reading and Mathematics, at a minimum:

- Value-added effect (in scale score and tier units)
- Standard deviation or standard error
- Confidence interval
- N
- state percentile
- WKCE percent proficient
- Value-added quadrant

5.8 Recipient will provide to Holder, within 90 days of receiving the Limited Data Set, or on a date agreed upon by both parties, a description of the statistical model used to generate the Results.

5.9 Recipient will provide to Holder a brief report summarizing use of and activities related to the statewide value-added analysis of the prior year, including at a minimum a list of districts and CESAs contracted for services using the state data set; questions, issues, and conclusions from the Research Project to date, and recommended next steps. This report shall be delivered to Holder not later than June 30, 2010 and each June 30 thereafter if additional data are provided to Recipient. The report shall be property of DPI and shall be of publishable quality as defined in the *Publication Manual of the American Psychological Association, 5e.*

6. Term and Termination

6.1 The terms of this Agreement shall be effective as of 09/14/09 and shall remain in effect until all PEI in the Limited Data Sets provided to the Recipient are destroyed or returned to the Holder.

6.2 The terms of this Agreement shall govern use of existing data (provided for the demonstration project) from the 2005-06, 2006-07, and 2007-08 school years; data for the 2008-09 school year; and, if requested by Recipient and provided at Holder's sole discretion, school years 2009-10, 2010-11, 2011-12, and 2012-13.

6.3 Upon the Holder's knowledge of a material breach of this Agreement by the Recipient, the Holder shall provide an opportunity for Recipient to cure the breach or

end the violation. If efforts to cure the breach or end the violation are not successful within the reasonable time period specified by the Holder, the Holder shall discontinue disclosure of PEI to the Recipient. The Holder shall immediately discontinue disclosure of the Limited Data Set to the Recipient if the Holder determines cure of the breach is not possible.

6.4 Both Holder and Recipient shall have the right to terminate this Data Use Agreement for any reason by providing sixty (60) days notice of termination of this Data Use Agreement to the other party (Holder or Recipient).

7. General Provisions

7.1 Recipient and Holder understand and agree that individuals who are the subject of Personal Educational Information are not intended to be third party beneficiaries of this Agreement.

7.2 This Agreement shall not be assigned by Recipient without the prior written consent of the Holder.

7.3 Each party agrees that it will be responsible for its own acts and the results thereof to the extent authorized by law and shall not be responsible for the acts of the other party or the results thereof.

8. Data Confidentiality and Security

8.1 Recipient shall implement and adhere to policies and procedures that restrict access to the Limited Data Set. A complete list of individuals with access to the Limited Data Set will be identified and maintained.

8.2 Persons retrieving data/using data from the Limited Data Set will never copy any student-level data to a laptop/desktop hard drive for any reasons. Tables and charts to be included in a project report will be acceptable to store outside of the secure hard drive or other secure data storage where the Limited Data Set is stored.

8.3 All individuals permitted to use or receive the Limited Data Set for purposes of the Research Project shall read and agree to follow the pupil data access policy and procedures in **DPI Policy Bulletin 4.300** (attachment 2) and in the **Student Data Access Policy and Procedures Guidebook** (attachment 3). These documents were developed to ensure proper handling of pupil data in order to maintain privacy and confidentiality. All individuals using or receiving the Limited Data Set must follow the data access procedures on pages 18 and 25, and sign and return to Holder the **Data Access Form**, PI-1274, on page 19 in the guidebook.

9. Transmission of Data

9.1 All student data will be sent to the Recipient via a secure FTP or other method selected by the Holder.

9.2 During this transmission data will be secured based upon a method selected by the Holder.

10. Data storage

9.1 Student data will be kept, for a period not to exceed 10 years, in a secure electronic format by the Recipient. All personally identifiable information connected with this Research Project shall be destroyed when no longer needed for the purposes for which the project was conducted. Recipient shall give Holder written notice of planned destruction of study records at least 30 days prior to such destruction. All student information will be permanently erased from Recipient's storage devices upon completion or termination of the project.

11. Data Elements

10.1 Attached is a Data Request (attachment 1) listing variables to be provided by Holder to Recipient for use with the Research Project. All data remains the property of Holder.

IN WITNESS WHEREOF, the parties hereto execute this agreement as follows:

Wisconsin Department of Public Instruction

Date: _____ By: _____
Director, Office of Educational Accountability

Date: _____ By: _____
Pupil Data Policy Advisor

University of Wisconsin
Wisconsin Center for Education Research
Value-Added Research Center (VARC)

Date: _____ By: _____
(Title of recipient or person with authority to sign agreement for the recipient)

Appendix 18: WDPI-WDHS Lead Study Data Exchange Agreement

INTERAGENCY AND DATA EXCHANGE AGREEMENT

I. PARTIES

The parties to this agreement are the Wisconsin Department of Public Instruction (hereafter referred to as DPI) and Wisconsin Department of Health Services, Division of Public Health (hereafter referred to as DPH). This MOU is for data sharing for the Wisconsin Childhood Lead Levels and Educational Outcomes (WCLLEO) project. The University of Wisconsin-Madison, Population Health Sciences (hereafter referred to as UWPHS) has primary responsibility for research associated with this project and providing funding that enables this research. UWPHS has an MOU with DPH to share and analyze data. DPI will provide data to the DPH Wisconsin Childhood Lead Poisoning Prevention Program (WCLPPP) on behalf of parents that have elected to participate in this research and signed a UW Education Institutional Review Board (IRB) approved consent form.

II. TERM

This Agreement shall remain in effect for a period of two years from the signature date of the Director of Management Services, DPI. Both parties may agree to renew, amend or terminate the agreement, unless sooner suspended under the terms and conditions set forth in Article XIII.

III. DEFINITIONS

A. The DPH data steward is the individual designated by the Division Administrator that will work to ensure all use of this data is in accordance with Family Educational Rights and Privacy Act (FERPA) and this agreement. In addition this person will coordinate and administer amendments to this agreement.

B. The DPI IT Director is the individual designated by the Agency Superintendent to perform day-to-day security functions, including:

1. Protecting the privacy of pupil data and adherence to FERPA
2. Monitoring compliance with this agreement by DPI staff.
3. Requesting that DPH terminate or modify access to this research data for any individual whose job functions or use of access merits such a change. Coordinate and administer amendments (attachments) to this agreement.

PO Box 7841, Madison, WI 53707-7841 • 125 South Webster Street, Madison, WI 53703
(608) 266-3390 • (800) 441-4563 toll free • (608) 267-1052 fax • (608) 267-2427 tdd • dpi.wi.gov

4. Coordinating data exchange request between DPI and DPH data steward.

5. Consult with the DPH data steward regarding access issue.

C. The DPI IT Director and DPH data steward are identified in Attachment A.

IV. PURPOSE

The purpose of this agreement is to allow the DPH data extracts containing standardized test scores and other educational/demographic data obtained from the Wisconsin Student Assessment System (WSAS). Information obtained through the WSAS will be used by DPH in accordance with the *Research Participant Information and Consent Form*, the UW IRB application and DPH rules and regulations and solely for the following purposes: (1) study associations of children's blood lead levels with educational performance and (2) look at confounding variables such as enrollment in free/reduced lunch program and other school environment and child demographic variables.

V. DATA/INFORMATION TO BE PROVIDED AND PURPOSES

DPI WSAS data will be provided for the children identified by the DPH data steward and verified by DPI for the purposes of analyzing blood lead levels and standardized test scores. A signed parental consent form will be required before any WSAS data is released. The data extracts obtained from DPI are intended only for analyses in support of the WCLLEO project. Specific data items are listed in *Attachment B – WCLLEO Required WSAS Data Items*.

These following steps will be performed:

1) DPI will send a letter of request to the WCLPPP Manager (see attachment C). This request will ask the WCLPPP to provide a sample list of names of children who have been tested for blood lead and fit the overall requirements for inclusion in the study. This letter of request enables the DPH to share these data with DPI.

2) Once the letter of request has been made by DPI, a list of names (with DOB and gender) will be provided by the DPH data steward to DPI. This list will be matched with the DPI databases to determine a) if the child is currently enrolled in a Wisconsin Public School, b) if the child has taken the 4th grade WKCE or WAA and c) if consistent with School District Policy, the name of the school the child is presently attending. DPI will provide a comma delimited file within 3 weeks for those children who meet qualifications a) and b) and if appropriate the school most recently attended. The estimated time to complete this task is 5 working days.

3) Once WCLLEO staff have identified the sample for the study and obtained parental consent, the names of the first 100 children will be sent by the DPH data steward to DPI along with copies of the parental consents. DPI will provide WSAS identified variables for all of these children and return a comma delimited file within 2 weeks to the WCLPPP data steward. The estimated time to complete this task is 5 working days.

4) After the first 100 cases have been sent and the programming (by DPI) to create the datasets completed, subsequent groups of names and their consent forms will be sent to DPI. The response time for each subsequent group is estimated at 2 weeks. Up to 4,500 cases may be provided to DPI. The estimated time for the DPI IT team to complete this task for one subsequent group of 500 cases is one (1) working day.

5) DPI IT will be reimbursed for its efforts at a rate of $100/hour.

VI. OFFICIALS WITH AUTHORITY TO REQUEST INFORMATION

Officials with authority to request access to DPI data or changes to this agreement are identified in Attachment A. Only the DPH data steward will have complete access to DPI and DPH data. Analysts on the WCLLEO project will only have access to de-identified data, i.e., with name and address data removed. Contractors and others working on recruitment of study subjects will have access to identifying information but not DPI test score data.

VII. REIMBURSEMENT FOR EXTRAORDINARY COSTS INCURRED BY DWD/DWS and/or DPI IN PROVIDING INFORMATION

Reimbursement for services required to administer and conduct this data exchange will be accomplished by purchase order through UWPHS. DPI IT staff will submit project time sheets to UWPHS and this will be considered an invoice for services. UWPHS will then reimburse DPI as appropriate for documented work performed.

VIII. PROTECTION OF CONFIDENTIALITY; PROTECTION AGAINST UNAUTHORIZED ACCESS OR DISCLOSURE

The DPH and WCLLEO Project agree to comply with the following measures to protect the confidentiality of any information provided under this agreement and to protect such information against unauthorized access or disclosure:

A. DPH will not use the information for any purposes not specifically authorized under this agreement.

B. Paper documentation (consent forms) that DPI receives from DPH containing confidential pupil information shall be stored in a place

physically secure from access by unauthorized persons in conformance with DPI security policy. DPI will store and maintain copies of signed consent forms in a locked cabinet until such time as they no longer require them and will destroy these documents. DPH will store confidential paper files in the same manner.

C. Information stored in electronic format, such as magnetic tapes or discs or on hard drives, shall be stored and processed in such a way that unauthorized persons cannot retrieve the information by any means.

D. DPH shall require all employees and WCLLEO personnel with access to the information covered under this agreement to sign a DPH confidentiality and nondisclosure agreement (Confidentiality - Non-Disclosure Acknowledgement – Employee - http://dhfsweb/forms/F8/F81020.doc; Confidentiality - Non-Disclosure Agreement – Contractor - http://dhfsweb/forms/F8/F81020A.doc) regarding the safeguarding of confidential client information required by State and Federal law.

E. DPH agrees that its requirements regarding confidentiality of information set forth in applicable state and federal statutes, administrative rules, employee handbooks, and policy manuals shall apply equally to information obtained under this agreement.

F. Confidential DPI information may only be accessed and utilized by authorized DPH employees and WCLLEO personnel, and only for the specific purposes as defined under Article IV. Discussion, use or release of this information by the DPH or any of its employees for any purposes other than those defined under Article IV is strictly prohibited.

IX. CONFIDENTIALITY ACKNOWLEDGMENT

The Authorized Representative of the DPH attests that all personnel with access to confidential information in the DPI datasets covered under this agreement will be required to adhere to the policies and procedures of DPH regarding confidentiality and the DPH confidentiality and nondisclosure form.

X. DISCLOSURE OF INFORMATION

In accordance with this agreement and in compliance with federal and state law, Wis. Stats. 146.82 and 255, the DPH will abide by the requirements of the UW IRB, the consent form signed by the parent and DPH rules and regulations regarding disclosure of information.

XI. SUSPENSION OF THIS AGREEMENT BY DPI FOR DEFAULT

Notwithstanding the term of this agreement as specified in Article II, the DPI shall suspend this agreement in accordance with state and federal requirements or

within forty-five (45) days if no state/federal requirements apply, in the event of the following:

A. The UWPHS fails to reimburse the DPI for work performed as required by Article VII.

XII. SUSPENSION OF THIS AGREEMENT BY DPI FOR GOOD CAUSE

The provisions of Article XI, Section A above, apply as a last resort. Suspension of this agreement will typically not occur in isolated instances of the DPH staff committing a violation of this agreement.

XIII. CURE DEFAULT TO REINSTATE AGREEMENT

Any suspension of this agreement for the reasons specified in Article XI shall last until the DPI is satisfied that the DPH is again in compliance with the terms. If a new agreement is required, all drafting and associated work will be the responsibility of the DPI agreement coordinator.

XIV. SUSPENSION OR TERMINATION OF THIS AGREEMENT BY DPH

Upon forty-five (45) days written notice to the DPI, the DPH may suspend or terminate this Agreement without cause.

XV. SURVIVAL

The confidentiality and disclosure requirements in Articles IX of this agreement survive the termination, for whatever reason, of the agreement itself, subject to applicable state and federal laws.

XVII. AMENDMENT OF THIS AGREEMENT

All or part of this agreement may be amended at any time by written amendment signed by the Authorized Representative of the DPH and DPI. It is acknowledged that this agreement is subject to federal and state law, both of which are subject to change. If either applicable state or federal law changes, this agreement will be considered immediately modified in accordance with each such change, without notice or written amendment.

XVIII. IMPACT OF STATE OR FEDERAL LAW CHANGE

Each party agrees to give the other party written notice within thirty (30) days after becoming aware of any state or federal law change which may impact upon the performance of either party under this agreement.

XVIII. STATEMENT OF DPI'S DATA SECURITY POLICY

I have reviewed this Interagency and Data Exchange Agreement and determine it incorporates DPI's data security policy. I recommend that Management Services sign this Interagency and Data Exchange Agreement on behalf of DPI

Rodney Packard
DPI IT Director

5.6.10
Date

SIGNATURE BLOCK

Approval of this agreement is given by the following:

Wisconsin Department of Public Instruction:

Suzanne Linton
Director of Management Services

5/3/2010
Date

DHS/DPH

Seth Foldy, MD, MPH
State Health Officer and Administrator
Division of Public Health
Wisconsin Department of Health Services

5/14/10
Date

ATTACHMENT A

AGREEMENT COORDINATORS AND SECURITY OFFICERS

DHS/DPH hereby designates Jeff Havlena to serve as the data steward for WCLLEO, as specified in Article III (A) of this agreement. DPI hereby designates Rod Packard to serve as the agreement coordinator and security officer, responsible for approving all requests for access to DPI student level data.

ATTACHMENT B

WCLLEO Required WSAS Data Items

See Excel File "DPI variables.xls"

ATTACHMENT C

[DRAFT REQUEST FOR DPI TO REQUEST NAMES OF CHILDREN SUBJECT TO LEAD TESTING]

Margie Coons, Program Manager
Childhood Lead Poisoning Prevention Program
Wisconsin Department of Health Services

Dear Ms. Coons:

This is a request, pursuant to Wis. Stat. § 146.82 (2) (a) 5, for the names of a sample of children you will select from your program's database who have been tested for lead exposure. The purpose of this request is to enable the Department of Public Instruction to provide the Department of Health Services, Childhood Lead Poisoning Prevention Program, with data it needs for the study titled, Wisconsin Children's Lead Levels and Educational Outcomes. The data the Department of Public Instruction receives from the Department of Health Services in response to this request will not be released to anyone who is not involved in providing the information to you or with the study.

Sincerely,

Richard Grobschmidt
Assistant State Superintendent

ChildhoodLeadDataSharing_DPI

Appendix 19: Wisconsin Alternative Route Program Application Review

Appendix C:

Alternative Route Program Application Review

C

The PI 34 requirements for alternative route program approval are organized into six components. This tool, *Alternative Route Program Application Review,* is used during PHASE I when a program provider submits an application seeking approval to begin an alternative route to licensure program in Wisconsin. After reading the complete application, the review team uses this tool to record findings and to determine whether the alternative route program provider meets all the requirements for PHASE I program approval. The tool can also be utilized by the program provider to prepare the application materials.

Component I	**Program Purpose**
Component II	**Financial and Education Resources**
Component III	**Instructional Design**
Component IV	**Student Admission and Advising**
Component V	**Student Assessment**
Component VI	**Program Evaluation**

WISCONSIN DEPARTMENT OF PUBLIC INSTRUCTION

Wisconsin Quality Educator Initiative PI 34
Wisconsin Department of Public Instruction
Tony Evers, State Superintendent

COMPONENT I – PROGRAM PURPOSE

The alternative-route to licensure program will fulfill an identified need in Wisconsin, has a mission/vision and research based philosophy, and has identified specific goals and objectives.			
PI 34 Item	**Application Requirement**	**Met**	**DPI Comment-Additional information required**
PI 34.17 (6) (c) Need	A description of the need for the program based on • research that supports the identified need and • data specific to Wisconsin.	☐ Yes ☐ No	
PI 34.17 (6) (c) Mission/Vision	A description of the program's mission/vision, including the name of the program and the program provider(s).	☐ Yes ☐ No	
PI 34.17 (6) (c) Philosophy	A description of the program's philosophy based on research that supports the philosophy.	☐ Yes ☐ No	
PI 34.17 (6) (c) Goals and Objectives	A description of the program goals and specific objectives for each goal, including goals and objectives which address: • increasing the diversity of Wisconsin educators and/or • eliminating shortages of licensed educators in specific license categories or in specific geographic locations.	☐ Yes ☐ No	

COMPONENT II – FINANCIAL AND EDUCATIONAL RESOURCES

The alternative –route to licensure program will have adequate educational and financial resources available to support the program.			
PI 34 Item	**Application Requirement**	**Met**	**DPI Comment-Additional information required**
PI 34.17 (6) (d) Financial Resources	A budget and supporting financial documentation which • ensures sufficient budgetary resources to fulfill the program mission and offer quality programs, • adequate resources to support teaching by faculty and learning by students, and • financial stability through program completion and follow-up.	☐ Yes ☐ No	
	A description of the • student fees and tuition costs that will be charged and • financial aid and scholarships available to students.	☐ Yes ☐ No	
	A description of the financial support or obligations due to collaborative or partnership efforts, if applicable.	☐ Yes ☐ No	
PI 34.17 (6) (d) Facility and Material Resources	A description of the program's • facilities and/or access to facilities and • instructional resources which • support teaching by faculty and learning by students.	☐ Yes ☐ No	
PI 34.17 (6) (d) Human Resources	A plan for all personnel in the program which will clarify roles and responsibilities and ensure educational and financial support for the program. Include position descriptions.	☐ Yes ☐ No	
	The name of the administrator identified for the program and their supporting qualifications.	☐ Yes ☐ No	
	The names of the faculty identified for the program and their supporting qualifications.	☐ Yes ☐ No	
	The names of clinical supervisors/ mentors identified for the program and their supporting qualifications.	☐ Yes ☐ No	
PI 34.17 (6) (d) Marketing	A marketing plan which includes both recruitment goals and strategies.	☐ Yes ☐ No	

COMPONENT III – INSTRUCTIONAL DESIGN

The alternative route program instructional design will ensure that individuals recommended for initial educator licensure will be proficient in the Wisconsin educator standards including the knowledge, skills and dispositions developed for each standard.			
PI 34 Item	**Application Requirement**	**Met**	**DPI Comment-Additional information required**
PI 34.02 PI 34.03 PI 34.04 Instructional Design	A description of the • instructional design of the program which confirms the program has • adopted the Wisconsin educator standards in PI 34 subch. II.	☐ Yes ☐ No	
	A description of the knowledge, skills, and dispositions that the program has developed for each educator standard.	☐ Yes ☐ No	
	A description of • how the instruction will lead to proficiency in the standards and • how it will be delivered to program participants.	☐ Yes ☐ No	
	A description of the common courses and/or experiences that will be part of the instructional design.	☐ Yes ☐ No	
	A description of how the program will determine the completion of a major or the equivalent of a major for content area licensure.	☐ Yes ☐ No	

The alternative route program instructional design will ensure candidates recommended for licensure in teaching, pupil services, or any administration programs where prior licensure is not a prerequisite will demonstrate knowledge and understanding of the statutory requirements and provisions identified in PI 34.15 (4) and s. 118.19.			
Item	**Application Requirement**	**Met**	**DPI Comment-Additional information required**
PI 34.15 (4) Cooperative Marketing and Consumer Cooperatives 118.19 (6)	A description of how the program will address **(a) Cooperative marketing and consumer cooperatives** for licenses in economics, social studies or agriculture.	☐ Yes ☐ No	
PI 34.15 (4) (b) Environmental Education 118.19 (6)	A description of how the program will address **(b) Environmental education** including conservation of natural resources for licenses in agriculture, early childhood, middle childhood to early adolescence, science and social studies.	☐ Yes ☐ No	

The alternative route program instructional design will ensure candidates recommended for licensure in teaching, pupil services, or any administration programs where prior licensure is not a prerequisite will demonstrate knowledge and understanding of the statutory requirements and provisions identified in PI 34.15 (4) and s. 118.19.			
PI 34 Item	**Application Requirement**	**Met**	**DPI Comment-Additional information required**
PI 34.15 (4) (c) Minority Group Relations 118.19 (8)	A description of how the program will address **(c) Minority group relations** for all licenses including all of the following: 1. The history, culture and tribal sovereignty of American Indian tribes and bands in Wisconsin.	☐ Yes ☐ No	
	2. The history, culture and contributions of women and various racial, cultural, language and economic groups in the United States	☐ Yes ☐ No	
	3. The philosophical and psychological bases of attitude development and change.	☐ Yes ☐ No	
	4. The psychological and social implications of discrimination, especially racism and sexism in the American society.	☐ Yes ☐ No	
	5. Evaluating and assessing the forces of discrimination, especially racism and sexism on faculty, students, curriculum, instruction, and assessment in the school program.	☐ Yes ☐ No	
	6. Minority group relations through direct involvement with various racial, cultural, language and economic groups in the United States.	☐ Yes ☐ No	
PI 34.15 (4) (d) Conflict Resolution 118.19 (9)	**(d) Conflict resolution** for all licenses including all of the following: 1. Resolving conflicts between pupils and school staff.	☐ Yes ☐ No	
	2. Assisting pupils in learning methods of resolving conflicts between pupils and between pupils and school staff, including training in the use of peer mediation to resolve conflicts between pupils.	☐ Yes ☐ No	
	3. Dealing with crisis, including violent, disruptive, potentially violent or potentially disruptive situations that may arise in school activities supervised by school staff as a result of conflicts between pupils or between pupils and other persons.	☐ Yes ☐ No	

The alternative route program instructional design will ensure candidates recommended for licensure in teaching, pupil services, or any administration programs where prior licensure is not a prerequisite will demonstrate knowledge and understanding of the statutory requirements and provisions identified in PI 34.15 (4) and s. 118.19.			
PI 34 Item	**Application Requirement**	**Met**	**DPI Comment-Additional information required**
PI 34.15 (4) (f) Reading and Language Arts 118.19 (12)	**(f) Teaching reading and language arts** using appropriate instructional methods including phonics for licenses to teach reading and language arts to pupils in grades PK to 6. In this paragraph "phonics" means a method of teaching beginners to read and pronounce words by learning the phonetic value of letters, letter groups and syllables.	☐ Yes ☐ No	
PI 34.15 (4) (g) Children with Disabilities	**(g) Procedures used for assessing and providing education for children with disabilities**, including roles and responsibilities of regular and special education providers.	☐ Yes ☐ No	
PI 34.15 (4) (h) Modifying curriculum	**(h) Modifying the regular education curriculum** when instructing pupils with disabilities.	☐ Yes ☐ No	

The alternative route program ensures candidates will complete clinical program requirements along with confirmation that the statutory requirement for student teaching is met (applicable for any teacher education program)			
PI 34 Item	**Application Requirement**	**Met**	**DPI Comment-Additional information required**
PI 34.15 (5) (a) Prestudent Teaching	A description of the pre student teaching or pre practicum experiences in the clinical program.	☐ Yes ☐ No	
PI 34.15 (5) (b) PI 34.15 (4) (e) Student Teaching 118.19 (3) (a) *full semester assignment for full days following the daily schedule and semester calendar of the cooperating school*	A description of the student teaching clinical program.	☐ Yes ☐ No	
	The student teaching clinical program ensures compliance with the statutory requirements identified in s. 118.19 (3) (a), Stats. for candidates seeking their first initial educator license to teach.	☐ Yes ☐ No	
	A description of the criteria for placements for student teaching.	☐ Yes ☐ No	
PI 34.15 (5) (c) Practicum *pupil services administration*	A description of the practicum experience for candidates seeking a pupil services or administrator license.	☐ Yes ☐ No	
	A description of the criteria for placements for practicum experiences.	☐ Yes ☐ No	
PI 34.17 (6) (c) PI 34.15 (5) Clinical program supervision and evaluation	A description of the qualifications, including appropriate licensure, established for on-site supervisor/ cooperating teacher/ mentor.	☐ Yes ☐ No	
	A description of the supervision and evaluation responsibilities of • the program supervisor, and • the on-site supervisor/ cooperating teacher/ mentor .	☐ Yes ☐ No	
	A description of the number of written evaluations from the program supervisor and the on-site supervisor/cooperating teacher/ mentor. Include examples of the developed evaluations.	☐ Yes ☐ No	
	The application includes a description of partnerships established with collaborating schools	☐ Yes ☐ No	

COMPONENT IV – STUDENT ADMISSION AND ADVISING

The alternative route program will ensure admission requirements for success in the program and in obtaining licensure and program advising to support candidates throughout the program.			
PI 34 Item	**Application Requirement**	**Met**	**DPI Comment-Additional information required**
PI 34.17 (6) (d) Admission	A description of the student admission process which addresses each of the following: • Degree requirements • GPA or equivalent • Prior experience • Interview process • Criminal background checks • Other (e.g. letters of reference, community involvement, etc.).	☐ Yes ☐ No	
	A description of policies the program has developed for exceptions or waivers to the admission process.	☐ Yes ☐ No	
	A description, if applicable, of the partnership agreement with an accredited IHE of granting a bachelors degree if students are not required to have a BS/BA degree for program admission.	☐ Yes ☐ No ☐ NA	
PI 34.17 (6) (d) Advising	A plan for student retention and career counseling.	☐ Yes ☐ No	
	A plan for dealing with students who are not successful.	☐ Yes ☐ No	
PI 34.17 (6) (d) Completion	A timeline for students to complete the proposed program.	☐ Yes ☐ No	

COMPONENT V – STUDENT ASSESSMENT

The alternative route program will ensure candidates are assessed on communication skills, human relations and professional dispositions, pedagogical knowledge, content knowledge, and clinical practice that will demonstrate proficiency in the Wisconsin educator standards (teacher, pupil services, and administrator).			
PI 34 Item	**Application Requirement**	**Met**	**DPI Comment-Additional information required**
PI 34.17 (6) (c) Assessment System	A description of the assessment plan and how it will ensure proficiency in the Wisconsin educator standards.	☐ Yes ☐ No	
	A description of the assessments of a student's communication skills* including: • Passing the Praxis I reading, writing, and math tests • Listening • Speaking • Media and Technology	☐ Yes ☐ No	
	A description of the multiple and ongoing assessments in human relations and professional dispositions.	☐ Yes ☐ No	
	A description of the multiple and ongoing assessments in pedagogy.	☐ Yes ☐ No	
	A description of the multiple and ongoing assessments in content knowledge including • Passing the Praxis II content exam • Performance tasks and levels of proficiency used to assess content knowledge.	☐ Yes ☐ No	
	A description of the multiple and ongoing assessments of the clinical practice including • Pre student teaching • Student teaching • Practicum	☐ Yes ☐ No	
	A description of the required documentation within a student's portfolio including • written evaluations from the clinical experiences and • documentation that will demonstrate proficiency in the educator standards, • pupil learning, and • student self reflection and self evaluation.	☐ Yes ☐ No	

* PI 34.01 (9) "Communication skills" means proficiency in reading, writing, mathematics, speaking, listening, media and technology including computers and emerging technology along with the ability to use those skills for instruction.

COMPONENT VI – PROGRAM EVALUATION

The alternative route program will systematically evaluate their program, conduct graduate follow-up studies as prescribed in PI 34.17 (6) (d) 2, and complete all state and federal reporting requirements.			
PI 34 Item	**Application Requirement**	**Met**	**DPI Comment-Additional information required**
PI 34.17 (6) (d) Program Evaluation	A plan for assessing how the program has reached its goals and objectives.	☐ Yes ☐ No	
PI 34.17 (6) (d) 2 Graduate Follow-up Studies	A description of how the program will systematically conduct graduate follow-up studies with candidates and employers and report to the public graduate performance in obtaining employment in Wisconsin schools and districts	☐ Yes ☐ No	
	A plan for tracking graduates in order to report to the public their progress through the stages of licensure including advancing from initial to professional educator license and master educator license after the first 5 years of employment.	☐ Yes ☐ No	
PI 34.17 (6) (d) 2 Federal reporting	A plan for collaborating with the department in the evaluation and reporting of graduate performance including completer data and Title II reporting requirements.	☐ Yes ☐ No	
PI 34.17 (6) (d) Program Improvement	A plan for using the information evaluated and reported to affect positive change in the program.	☐ Yes ☐ No	

Appendix 20: Wisconsin Alternative Certification Statutory References

Wisconsin - Race to the Top
(D) Great Teachers and Leaders

The State's applicable statutes, regulations, or other relevant legal documents regarding Wisconsin alternative routes to certification for both teachers and principals.

Wisconsin Statute

115.28 (7) LICENSING OF TEACHERS. (a) License all teachers for the public schools of the state, make rules establishing standards of attainment and procedures for the examination and licensing of teachers within the limits prescribed in ss. 118.19 (2) and (3), 118.192 and 118.195, prescribe by rule standards and procedures for the approval of teacher preparatory programs leading to licensure, file in the state superintendent's office all papers relating to state teachers' licenses and register each such license.

Wisconsin Administrative Code PI 34

PI 34.17 Initial educator license. (6) LICENSE BASED ON EQUIVALENCY.
(c) An initial educator license may be issued to an applicant who has completed an alternative training program approved by the state superintendent that is provided by, but not limited to, a college or university, school, school district, CESA, consortia, technical college, private enterprise or agency. Each alternative training program shall be based on the standards under subchapter II and shall include assessment of candidate performance as measured against the standards, including any standardized examinations prescribed by the state superintendent for licensure.

(d) 1. The state superintendent shall insure that program providers under pars. (b) and (c) have adequate resources to support teaching by faculty and learning by students. The state superintendent shall insure that program providers under pars. (b) and (c) have sufficient budgetary resources to fulfill their mission and offer quality programs.

2. The program provider, in collaboration with the department, shall systematically evaluate and report to the public graduate performance in obtaining employment in Wisconsin schools or school districts as well as graduate performance in advancing from the initial to professional educator license and master educator license after the first 5 years of employment.

Wisconsin Educator Preparation Program Approval Handbook for the review of Wisconsin Alternative Route Programs that Prepare Educators for Wisconsin Schools

Available at: http://dpi.wi.gov/tepdl/vprogprovider.html

Appendix 21: Race to the Top Performance Measures Survey

Race to the Top Performance Measures Survey

1. **Please note that all survey responses are confidential.**
   LEA Name:
   LEA Number:
   Email Address:
   Phone Number:

2. **Student Growth Models**

Y N a) Other than the WKCE, our district tracks student progress across time (for example: MAPS, ThinkLink, etc.)
Y N b) Our district provides **teachers** with student growth data for their students, classes, and schools
Y N c) Our district provides **principals** with student growth data for their students, classes, and schools

TEACHER EVALUATION SYSTEM

3. **Does your district use any of these methods/models/measures <u>within your teacher evaluation system</u>?**

Y N a) State standardized test results – WKCE, WIDA-ACCESS
Y N b) Student growth models
Y N c) Classroom observations
Y N d) Portfolios containing teacher artifacts
Y N e) Analysis of classroom artifacts
Y N f) Teacher self reports of practices
Y N g) High school graduation rates; attendance rates
Y N h) College enrollment rates
Y N i) Evidence of leadership roles (mentoring, leading professional learning communities) that increase the effectiveness of other teachers in the school or LEA
Y N j) National Board Professional Teaching Standards certification
Y N k) Wisconsin Master Educator Assessment Process licensure
Y N l) A purchased product such as: *Enhancing Professional Practice: A Framework for Teaching* by Charlotte Danielson; CLASS; Teacher Advancement Program (TAP), etc.

4. **We use our current <u>teacher evaluation</u> system results to:**

Y N a) Develop teachers – provide relevant coaching, induction support, and/or professional development based on teachers needs
Y N b) Compensate teachers – offer incentives, additional compensation, etc.
Y N c) Promote teachers – be given additional responsibilities or leadership roles
Y N d) Retain effective teachers – offer incentives to stay
Y N e) Grant tenure (non probationary status)
Y N f) Remove ineffective probationary and/or non probationary teachers after they have had ample opportunities to improve

PRINCIPAL EVALUATION SYSTEM

5. Does your district use any of these methods/models/measures <u>within your principal evaluation system</u>?

Y N a) State standardized test results – WKCE, WIDA-ACCESS
Y N b) Student growth models
Y N c) Building site visits
Y N d) Portfolios containing artifacts
Y N e) Principal self reports of practices
Y N f) High school graduation rates; attendance rates
Y N g) College enrollment rates
Y N h) Evidence of supportive teaching and learning conditions
Y N i) Instructional leadership
Y N j) Family and community engagement
Y N k) Wisconsin Master Educator Assessment Process Licensure
Y N l) A purchased principal evaluation product such as: *Vanderbilt Assessment of Leadership in Education (VAL-ED)*

6. We use our current <u>principal evaluation</u> system results to:

Y N a) Develop principals – provide relevant coaching, induction support, and/or professional development based on needs
Y N b) Compensate principals – offer incentives, additional compensation, etc.
Y N c) Promote principals – be given additional responsibilities or leadership roles
Y N d) Retain effective principals – offer incentives to stay
Y N e) Grant tenure (non probationary status)-
Y N f) Remove ineffective principals

Appendix 22: Appleton School District Model Evaluation System

Performance Appraisal System
Part 1
Probationary Teachers

Year One

- Observations and collection of evidence on the identified elements of the Framework for Teaching
- Evidence of Student Learning
- Mentoring and Induction if in first three years of teaching*

Unsatisfactory → Non-renewal or Enhanced Support

Satisfactory
Proceed to Year Two

Year Two

- Observations and collection of evidence on the identified elements of the Framework for Teaching
- Evidence of Student Learning
- Mentoring and Induction if in first three years of teaching*

Unsatisfactory → Non-renewal or Enhanced Support

Satisfactory
Proceed to Year Three

Year Three

- Observations and collection of evidence on all elements of the Framework for Teaching
- Evidence of Student Learning
- Mentoring and Induction if in first three years of teaching*

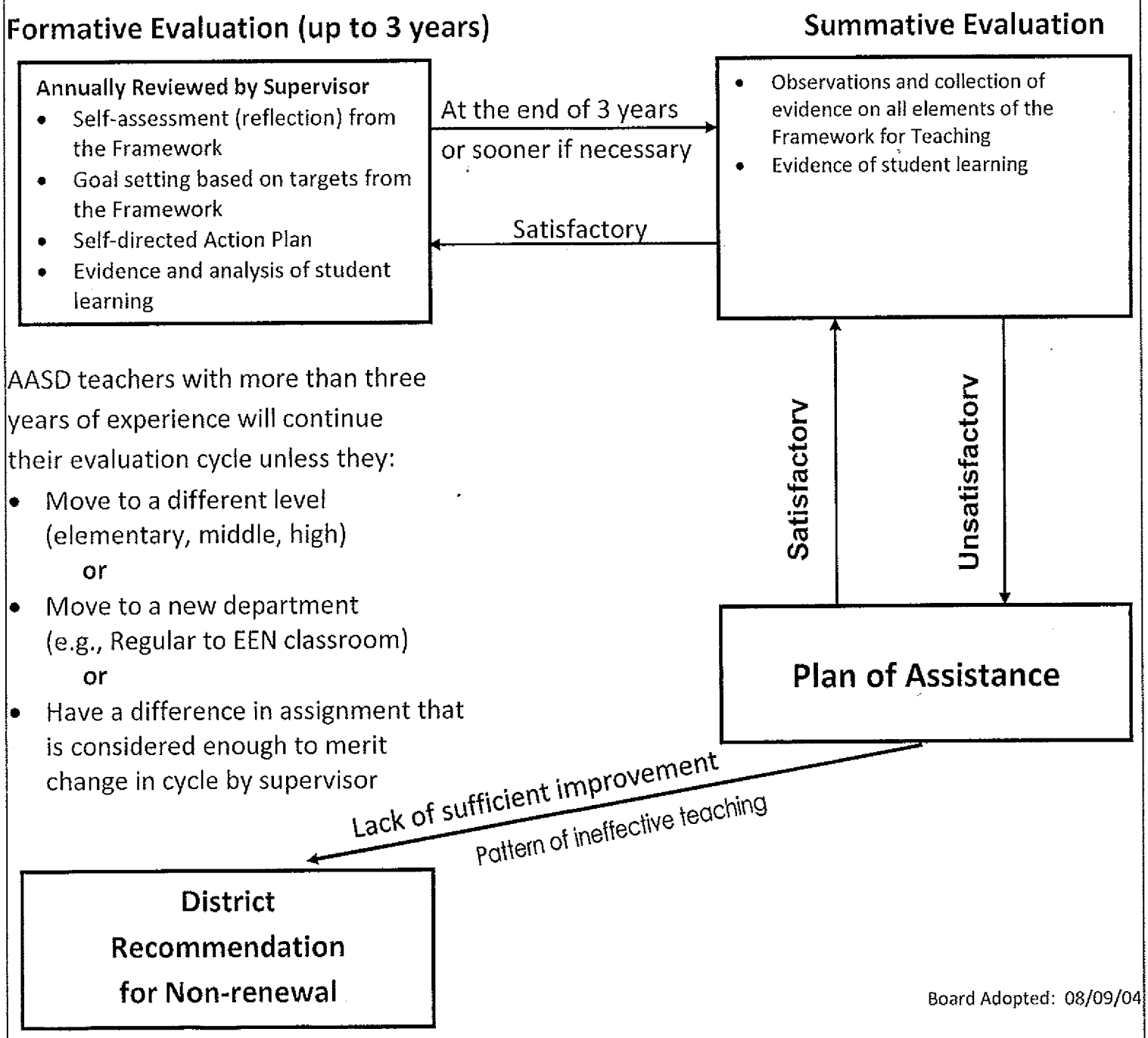
Unsatisfactory → Non-renewal

Satisfactory
Proceed to Summative Cycle

Board Adopted: 08/09/04

**Only for teachers without prior experience*

Performance Appraisal System
Part 2
Experienced Teachers
More than 3 Years Experience in Appleton Area School District
Summative Cycle



Board Adopted: 08/09/04

The Philosophy Behind the Rubric

The rubric used for the AASD evaluation instrument is based on Charlotte Danielson's Framework for Teaching. Each administrator in the district should have a copy of the book (**Enhancing Professional Practice: *A Framework for Teaching*** by Charlotte Danielson). Each site should have a copy of the book in the professional library of the school. The Staff Development Office should offer training to new administrators and new teachers each year.

Quality Instruction Training (QIT) is the instructional model for the district. The AASD Framework rubric was developed to be compatible with QIT and the State Teacher Standards. For example: A rubric may make a global statement such as "activities are highly relevant to students and to the instructional goals". The QIT model would provide the specifics in "teaching to the objective," "principles of learning," and "expectations" that would relate to this rubric description. Supervisors and teachers need a background in both QIT and Danielson's Framework.

The following diagram explains the meaning of each of the rubric categories. The rubric is formulated on the premise that educators will always have growth potential. Therefore it is virtually impossible for educators to have a majority of their rubric marked in the "Distinguished" category. Educators will have the majority of their marks in the "Developing/Basic category or the "Proficient" category. This is by design. If you are marking more that 4-5 areas in the "Distinguished" category, make sure to review your evidence to make sure these are the best matches for a rubric selection. The descriptors were developed to keep areas open for further growth, even for the most skilled teachers.

Specific definitions of the rubric categories are clarified on the following page.

The Components of Professional Practice, developed by Charlotte Danielson, are envisioned as a common core of knowledge and performance that will help link educational practice more forcefully to productive schools and enhanced student achievement.

The framework provides a common knowledge base and a common language for defining a clear roadmap for both novice and experienced educators as they strive to become even better at their professional practices.

The assessment of performance is based on the collection of evidence provided both by the supervisor and the supervisee. While the discussion of which descriptor best matches the evidence is collaborative, the final authority for selecting the appropriate rubric description is the role of the supervisor.

RUBRIC DESCRIPTORS

The (DEFICIENT) level typically describes that little or no evidence exists for the set of behaviors called for by this specific component. It does not mean that the educator is not capable overall or not capable of this specific set of behaviors. Instead, this designation means there is little or no evidence of achievement of this component judged by performance. Any evidence that shows performance that is counter to the behaviors described in this component should be listed on the comment section.

The (DEVELOPING/BASIC) level typically describes limited evidence. The evidence may not address the component in its complexity or it may be lacking in breadth and depth. The performance may be adequate but less effective than optimal. For example, the educator may exhibit acceptable behaviors at times, but not always consistently or matched to student need. This level is typical of a beginning teacher.

3c: Engaging Students in Learning

Appendix–383

ELEMENT	LEVEL OF PERFORMANCE			
	DEFICIENT	DEVELOPING/BASIC	PROFICIENT	DISTINGUISHED
Representation of Content	Presentation of content is inappropriate and unclear or uses poor examples and analogies.	Representation of content is inconsistent in quality: Some is done skillfully, with good examples; other portions are difficult to follow.	Representation of content is appropriate and links well with students' knowledge and experience.	Representation of content is appropriate and links well with students' knowledge and experience. Students contribute to representation of content.

The level of (PROFICIENT) typically describes clear evidence. The evidence is specific, reasonable, and addresses the complexity of the component. At times the evidence may be somewhat uneven, with specific features within the component addressed more effectively than others. In general, the educator knows what to do and does it. This describes the performance of a highly competent educator.

The level of DISTINGUISHED typically describes clear, convincing, consistent, and exemplary evidence. Comprehensive evidence presents an integrated highly effective approach to the behaviors specified in this component. This rating is reserved for exceptional performance in this component.

Appendix 23: Districts Providing Additional Compensation for Master Educator Licensure or National Board Certification

PROFESSIONAL DEVELOPMENT PLAN COMPLETION
Completion of PDP Equals Six Credits Unless Otherwise Noted
Master Educator and National Board Certification Value

May 13, 2010

#	Districts with PDP Value	Master Educator	National Board
1	Abbotsford[15]	Last Lane of Salary Schedule	
2	Albany[1]		
3	Argyle[4]		
4	Baraboo		
5	Beaver Dam[8]		One Lane Movement
6	Beloit-Turner[1]		
7	Berlin		$2000 Bonus
8	Black River Falls		
9	Bowler[16]		
10	Cambria-Friesland[8]		
11	Cedar Grove	One Lane Movement	
12	CESA 2		$2000 Bonus
13	Crandon[3]	Two Lane Movements	
14	Eau Claire		
15	Edgar		
16	Edgerton		
17	Elkhart Lake[1]		
18	Evansville		$1500/Year
19	Fall River		
20	Fontana (K-8)		$2000 Bonus
21	Franklin[23]		Equals Six Credits
22	Gillett[18]		
23	Granton[17]	Last Lane of Salary Schedule	
24	Green Lake		
25	Greendale[9]		$3000/Year
26	Greenfield		
27	Gresham		
28	Hartford UHS		Two Lane Movements
29	Independence		
30	Janesville		
31	Kaukauna[19]		
32	Kickapoo[14]		
33	Kiel		Movement to Last BA or MA Lane
34	Lake Geneva		
35	Little Chute[7]		$1000/Year
36	Madison	$1500/Year	$1500/Year
37	Manitowoc[1]	10% of Salary/Year	10% of Salary/Year
38	Marion[20]	Move to Master +10 Lane	
39	Menomonee Falls		Six Graduate Credits or $2000/Year
40	Milton		
41	Monroe		
42	Monticello[5]		
43	Mosinee[24]		
44	Mt. Horeb	Move to Master Lane	
45	Neenah		
46	Neillsville[21]	Last Lane of Salary Schedule	
47	Niagra[2]	Two Lane Movements	
48	Northland Pines		
49	Oak Creek[11]		
50	Onalaska		
51	Park Falls	One Lane Movement	
52	Pardeeville		
53	Parkview		
54	Prescott[26]		
55	Phillips[10]	Equals Twelve Credits	One Lane Movement
56	Plymouth		
57	Portage[22]		
58	Poynette[1]		
59	Princeton[11]		10% of Base/Year
60	Randall		

61	Random Lake[28]		$3000/Year
62	Reedsburg		
63	Richland[27]		
64	River Valley		
65	Sevastopol		
66	Sharon (K-8)		$2000 Bonus
67	Sheboygan	Equals Twelve Credits	Equals Twelve Credits
68	Sheboygan Falls		
69	St. Francis[1]		
70	State Employees	$3120/Year	$3120/Year
71	Sun Praire[13]		
72	Tomah		
73	Two Rivers		10% of Salary/Year
74	Valders		
75	Wabeno[2]	Two Lane Movements	
76	Washington-Caldwell		
77	Waterford UHS	$2000/Year with Escalator	
78	Watertown	Equals Twelve Credits	Lane Movements and Credits[6]
79	West Bend	Move to Last Lane	$2500/Year and Move to Last Lane
80	Weston[12]		5% of Base/Year
81	Whitewater		
82	Wittenberg-Birnamwood[25]	Two Lanes (16 Credits)	Two Lanes (16 Credits)

[1]Initial Educator Only

[2]Two Lanes (12 Credits)

[3]Two Lanes (16 Credits)

[4]$1000 One time Bonus

[5]Receives 6 Credits Only Once

[6]Or $1000/Year if at Top of Schedule

[7]In MOU

[8]Initial Educator Only - Moves 1 Lane

[9]PD Activities that Apply to Lane Movement

[10]Initial Educator Only - 8 Credits

[11]With Admiminstrator Approval

[12]Professional Ed Only - 3 Credits

[13]12 Credits for Initial, 6 for all others

[14] Initial Ed. Will also receive $500 if don't move lane with six credits

[15]Initial and Professional Educators are designated on schedule by lane

[16]Initial & Professional Educators move to appropriate lane based on PDP

[17]Initial & Professional Ed. Move to designated lanes based on PDP

[18]Initial & Professional Ed Move to designated lanes based on PDP

[19]Points System For Movement Between Lanes

[20]Move From Initial to Professional Two Lanes

[21]Move Lane Intial to Professional Steps highlighted, Must Still have credits to move lanes

[22]Points Given For PDP Completion for Credit on Salary Schedule

[23]One Credit For PDP Approved Course and One Credit for PDP Approval

[24]Professional Ed $2,000 One Time Pymt

[25] One Lane Movement (8 Credits)

[26]Initial Educators Receive 4 Credits Once

[27]Initial Educators Receive 6 Credits, no movement for Professional

[28]Eight credits for PDP approval

Districts without PDP Value but with Master Educator and/or National Board Certification Value

#	Districts w/o PDP Value	Master Educator	National Board
1	Auburndale		Equals Six Credits
2	Badger		$1000/Year for 5 Years
3	Bayfield		Movement to Last Lane
4	Bloomer		$1000/Year
5	Cadott		$1000 Bonus
6	Cedarburg		$1500 Bonus
7	Cuba City		$3000 Bonus
8	DeForest		Two Lane Movements
9	East Troy		1.5%of Base/Year
10	Elk Mound		$1000/Year
11	Ellsworth		$1500 Bonus
12	Gibraltar		Equals Six Credits
13	Glendale-River Hills		10% of Salary/Year
14	Green Bay		$2500/Year
15	Holman		$2000/Year
16	Howards Grove		$2500/yr
17	Hudson		$1000/Year
18	Kettle Moraine		$1000/Year
19	Kohler		$2500/yr
20	Marathon		$1500 Bonus
21	Marshfield		Application Fee
22	Mellen		Equals Six Credits
23	Menomonee Falls		$2000/Year
24	Mosinee	$2000 One Time Pymt	$2000 One Time Pymt
25	Mukwonago		$1000/Year
26	Neosho		$2500/Year
27	Northern Ozaukee		$2500/Year
28	Oostberg		$2500/Year
29	Rhineland		1% of Salary/Year
30	Saylesville	$4000/Year	
31	Seneca		5% of Salary/Year
32	South Milwaukee		$1000/Year
33	Tomakawk		$1500/Year
34	Traver	$1000/Year for 5 Years	$1000/Year for 5 Years
35	Wauwatosa		$1000/Year
36	West Allis		$1000/Year
37	West DePere		BA to MA/ MA Moves One Lane

Appendix 24: Sanctions for Title I Districts Not Making AYP

SANCTIONS FOR

TITLE I DISTRICTS

NOT MAKING ADEQUATE YEARLY PROGRESS (AYP)

DISTRICTS IDENTIFIED FOR IMPROVEMENT (DIFI) STATUS- ***Must make AYP for two consecutive years to be removed from DIFI status***

Timeline	What districts must do	What the state will do
Miss AYP for *one* year	*No sanctions*	
DIFI Level 1 Miss AYP for **two** consecutive years	1. Within 3 months, identified district must **develop new or revised district improvement plan**. The plan must: ■ Incorporate scientifically-based research strategies… ■ Identify actions that have the greatest likelihood of improving the achievement of participating children in meeting… ■ Address the professional development needs of instruction staff **by committing to spend not less than 10% of district Title I funds for this purpose** ■ Include specific measurable achievement goals and targets… ■ Address the fundamental teaching and learning needs in the schools… ■ Incorporate appropriate activities, before school, after school, and during the summer… ■ Specify responsibilities of the state educational agency and local educational agency… ■ Include strategies to promote effective parental involvement in the school. 2. The LEA must implement the plan no later than the beginning of this school year. 3. Ensure that parents of each student enrolled in a school served by a local educational agency identified for improvement are notified.	1. Upon request, DPI will provide or arrange technical assistance to assist the LEA to: ■ Develop and implement an improvement plan ■ Work with schools needing improvement Technical assistance will be supported by effective methods and instructional strategies grounded in scientifically based research. Technical assistance will address problems, if any, in implementing parent involvement and professional development activities. 2. DPI **must** establish a system of corrective action. DPI will take corrective action if a district does not make adequate progress by the end of the second full school year it has been identified for improvement (see DIFI level 3). (Note: state must provide notice of the corrective action to the parents and public). Prior to that status, DPI will closely monitor progress of school districts and may require the following: ■ Title I-receiving school districts will be priority for being selected for monitoring for compliance of their ESEA consolidated application.

Timeline	What districts must do	What the state will do
DIFI Level 2 Miss AYP for **three** years	1. Continue the implementation of the improvement plan. 2. Comply with any monitoring procedures imposed by the state.	1. Continue to provide technical assistance as described under DIFI level 1. 2. Closely monitor the progress of districts that may consist of the following: ■ Title I-receiving school districts will continue to be a priority for being selected for monitoring for compliance of their ESEA consolidated application. ■ Districts may be required to submit for review their district improvement plans.
DIFI Level 3 Miss AYP for **four** years	1. Continue the implementation of the improvement plan. 2. Comply with any monitoring procedures imposed by the state. 3. Implement state-required corrective action.	1. Continue to provide technical assistance as described under DIFI level 1. 2. Closely monitor the progress of districts that may consist of the following: ■ Title I-receiving school districts will continue to be a priority for being selected for monitoring for compliance of their ESEA consolidated application. ■ Districts may be required to submit for review their district improvement plans. ■ Title I-receiving school districts' ESEA consolidated application for funding will be reviewed to ensure funds are targeted toward improvement areas, and school districts may be required to redirect ESEA funds to improvement areas. 3. Districts will be required to submit to DPI their district improvement plans and after conferring with school district officials, DPI will implement corrective action for Title I-receiving districts per NCLB requirements noted below. Corrective action **must** include at least one of the following: ■ Deferring programmatic funds or reducing administrative funds ■ Instituting and fully implementing a new curriculum ■ Replacing the LEA personnel who are relevant to the failure to make adequate yearly progress

Timeline	What districts must do	What the state will do
		■ Removing particular schools from the jurisdiction of the LEA and establishing alternate arrangement for public governance and supervision of such schools ■ Appointing or receiving a trustee to administer the affairs of the LEA in place of the superintendent and school board ■ Abolishing or restructuring the LEA ■ Authorizing students to transfer to another LEA
DIFI Level 4 Miss AYP for **five** years	1. Comply with any monitoring procedures imposed by the state. 2. Continue the implementation of state-required corrective action.	1. Continue to provide technical assistance as described under DIFI level 1. 2. Closely monitor the progress of districts that may consist of the following: ■ Title I-receiving school districts will continue to be a priority for being selected for monitoring for compliance of their ESEA consolidated application. ■ Title I-receiving school districts' ESEA consolidated application for funding will be reviewed to ensure funds are targeted toward improvement areas, and school districts may be required to redirect ESEA funds to improvement areas. 3. Ensure that Title I-receiving school districts are implementing state-required corrective action.

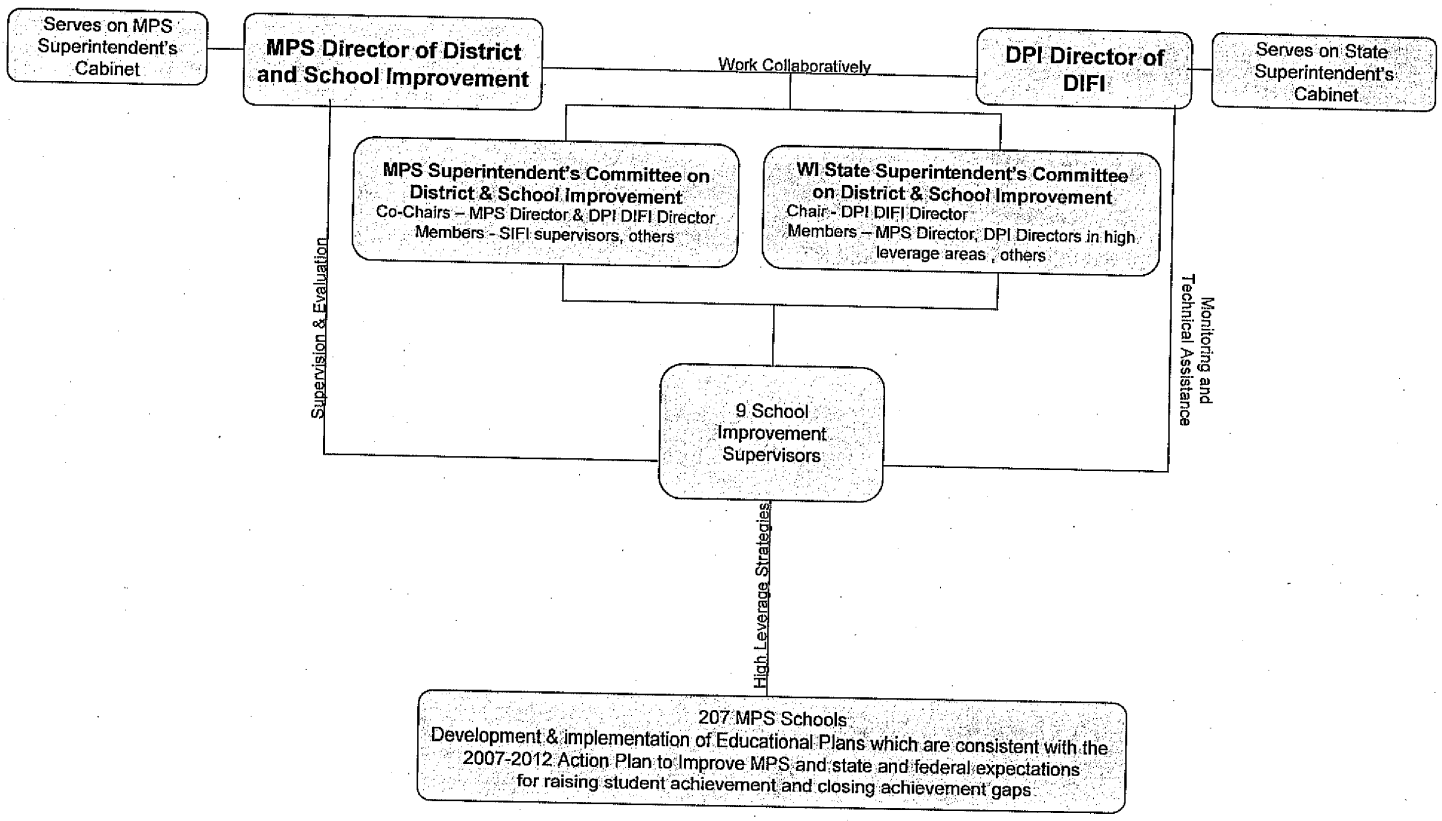
Resources:

- More information on **Wisconsin's School Accountability System** can be found at: http://www.dpi.wi.gov/oea/acct/index.html
- Wisconsin Information Network for Successful Schools – **School Improvement Planning Tool** can be found at: http://www.dpi.wi.gov/sig/improvement/tools.html
- Sample letter/statement to parents regarding districts identified for improvement: http://www.dpi.wi.gov/esea/doc/sample-difiparentnotif.doc
- Wisconsin Department of Public Instruction's **No Child Left Behind Web site**: http://www.dpi.wi.gov/esea/index.html

Appendix 25: MPS District and School Improvement Accountability Model Under NCLB

MPS District & School Improvement

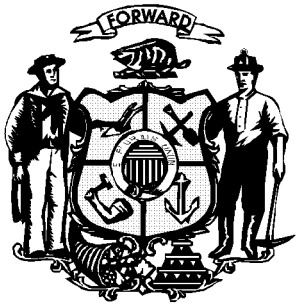
Accountability Model Under NCLB



Appendix 26: Wisconsin's 2009 Annual Fiscal Report

FY09

ANNUAL FISCAL REPORT
Budgetary Basis



State of Wisconsin
2009

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State of Wisconsin
2009 Annual Fiscal Report

(Budgetary Basis)

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October 15, 2009

The Honorable Jim Doyle
The Honorable Members of the Legislature

This report presents statements of fund condition and operations (budgetary basis) of the State of Wisconsin for the fiscal year ended June 30, 2009. This satisfies the requirements of sec. 16.40(3), Wisconsin Statutes. Displayed are major sources of revenues and major categories of expenditures for the General Fund and other funds compared to the prior year.

The General Fund has an undesignated balance of $89.6 million as of the end of the fiscal year. This is $19.2 million higher than the balance of $70.4 million projected in the estimate for 2009 Wisconsin Act 28 and other related budget legislation. This higher ending balance was due to less spending than estimated.

General-purpose revenue taxes were $12.113 billion compared to $13.043 billion in the prior year, a decrease of $930 million or 7.1 percent. Actual revenue collections in fiscal year 2008-09 were $1.173 billion less than the $13.286 billion estimated in May 2008, a reduction of 8.8 percent. This dramatic fall off in revenue collections reflects the impact of the worst global and national economic conditions in decades on Wisconsin's economy. Compared with estimates reflected in 2009 Wisconsin Act 28 and other related budget legislation, actual collections were only $4.3 million (0.04 percent) lower.

General-purpose revenue expenditures, excluding fund transfers, were $12.744 billion compared to $13.526 billion in the prior year, a decrease of $782 million or 5.8 percent. This decrease reflects spending cuts to GPR appropriations and federal fiscal relief for education and Medicaid programs under the American Recovery and Reinvestment Act of 2009.

In fiscal year 2009, the State of Wisconsin continued to devote the major share of state tax collections to assistance to local school districts, municipalities and counties. Local assistance accounted for 56.7 percent of total general purpose revenue spending. Aid payments to individuals and organizations represented 17.3 percent of total general purpose revenue expenditures. The University of Wisconsin accounted for 8.8 percent of total general purpose revenue spending and state operations spending for all other state agencies accounted for 17.2 percent of the total.

The State of Wisconsin expects to publish its comprehensive annual financial report in December of 2009. The report will be prepared under generally accepted accounting principles.

Respectfully submitted,

Michael L. Morgan
Secretary of Administration

Stephen J. Censky, CPA
State Controller

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Economic Section

The Year In Summary

Revenue Highlights

General purpose revenue (GPR) taxes for the fiscal year (FY) ending June 30, 2009 totaled $12,113.2 million, a decrease of 7.1 percent from FY 2008 collections of $13,042.9 million.

Total collections for FY 2009 were $4.3 million, or 0.04 percent, below the estimate of $12,117.5 million.

Table 1

General Purpose Revenue (GPR) Taxes By Source
GPR Tax Collections
($ Millions)

Tax Source	FY 09	% of Total	FY 08	% of Total	Change FY09-FY08	% Change
Individual Income	$6,222.7	51.4%	$6,713.7	51.5%	$-491.0	-7.3%
General Sales & Use	4,084.0	33.7%	4,268.0	32.7%	-184.0	-4.3%
Corporation Franchise & Income	629.5	5.2%	837.8	6.4%	-208.3	-24.9%
Excise	647.6	5.4%	540.2	4.2%	107.4	19.9%
Inheritance, Estate & Gift	20.9	0.2%	158.8	1.2%	-137.9	-86.8%
Public Utility	320.1	2.6%	297.5	2.3%	22.6	7.6%
Insurance Companies	136.3	1.1%	156.6	1.2%	-20.3	-13.0%
Miscellaneous	52.1	0.4%	70.3	0.5%	-18.2	-25.9%
TOTAL GPR	$12,113.2	100.0%	$13,042.9	100.0%	$-929.7	-7.1%

Individual Income Tax

Individual income tax collections decreased $491.0 million (7.3 percent) from $6,713.7 million in FY 2008 to $6,222.7 million in FY 2009. This was $37.7 million (0.6 percent) above the $6,185.0 million estimate. The individual income tax share of total GPR taxes decreased from 51.5 percent in FY 2008 to 51.4 percent in FY 2009.

The largest component of individual income tax collections is withholding from wages and salaries, which increased 0.08 percent from $6,490.1 million to $6,495.2 million. Estimated payments decreased 19.7 percent from $1,173.6 million to $941.9 million, while refunds increased 8.2 percent from $1,726.3 million to $1,868.6 million.

General Sales and Use Tax

Collections from the 5 percent general sales and use tax decreased 4.3 percent from $4,268.0 million to $4,084.0 million. This was $46.0 million (1.1 percent) below the $4,130.0 million estimate. Sales tax collections as a percentage of total GPR taxes increased from 32.7 percent to 33.7 percent.

Corporation Franchise and Income Tax

Corporate collections decreased 24.9 percent from $837.8 million in FY 2008 to $629.5 million in FY 2009. Corporate collections as a percentage of total GPR taxes decreased from 6.4 percent to 5.2 percent. Corporate collections were $14.5 million (2.4 percent) above the estimate of $615.0 million.

The major source of corporate collections, estimated payments, decreased by 22.6 percent from $779.8 million in FY 2008 to $603.9 million in FY 2009.

Excise Tax

Cigarette tax collections increased 21.0 percent from $455.7 million in FY 2008 to $551.4 million in FY 2009. Collections in FY 2009 were below the estimate by $7.5 million (1.3 percent). This growth primarily reflects a full year of collections of the increase in the cigarette tax (from $0.77 to $1.77) enacted in 2007 Wisconsin Act 20 and effective January 1, 2008, to fund health care programs.

Tobacco products tax collections increased 42.1 percent from $29.7 million in FY 2008 to $42.2 million in FY 2009. Collections were $1.2 million more than expected. Similar to the cigarette tax, Act 20 also increased the tobacco products tax on all tobacco products, other than moist snuff, from 25 percent of manufacturer's list price to 50 percent of manufacturer's list price. In addition, Act 20 converted the tax on moist snuff from a price-based tax to a weight-based tax. These tax changes were effective January 1, 2008.

Liquor and wine tax collections decreased 2.4 percent over the previous fiscal year, from $45.2 million in FY 2008 to $44.1 million in FY 2009. Collections were $100,000 (0.2 percent) above the estimate in FY 2009.

Beer tax collections increased in FY 2009 3.1 percent from $9.6 million in FY 2008 to $9.9 million in FY 2009. Collections in FY 2009 were $100,000 (1.0 percent) below the estimate in FY 2009.

Other Taxes

Public utility tax collections increased $22.6 million (7.6 percent) from $297.5 million in FY 2008 to $320.1 million in FY 2009. Collections were $600,000 below the FY 2009 forecast.

Estate tax collections decreased 86.8 percent during FY 2009. This reflects a decrease from $158.8 million in FY 2008 to $20.9 million in FY 2009. Estate tax collections were $100,000 (0.5 percent) below the estimate for FY 2009. This reduction is due to statutory provisions that effectively eliminated the estate tax for deaths that occurred on or after January 1, 2008. Estate taxes are typically paid nine months after the date of death, resulting in revenues received through September 2008.

Insurance company taxes (generally based on premiums) decreased 13.0 percent from $156.6 million in FY 2008 to $136.3 million in FY 2009. Collections were below the FY 2009 forecast by $3.7 million (2.6 percent).

Miscellaneous taxes decreased from $70.3 million in FY 2008 to $52.1 million in FY 2009. This is $100,000 above the forecast for the fiscal year. The largest component of miscellaneous tax, the real estate transfer fee, decreased 30.6 percent, from $59.4 million in FY 2008 to $41.2 million in FY 2009. This reflects the depressed real estate market witnessed over the past year. The real estate transfer fee has declined by $39.3 million (48.8 percent) since reaching its peak in FY06.

Expenditure Highlights

Fiscal year 2009 was deeply affected by the nation's worst economic crisis in decades. Decreases in tax collections were met with increases in demand and need for assistance. The U.S. Congress moved to address the national crisis through additional funding for states and approved the American Recovery and Reinvestment Act of 2009 (ARRA) in February 2009. The Wisconsin Legislature enacted 2009 Wisconsin Acts 2, 11, 23 and 28 directing the newly available ARRA funding to GPR programs in order to address anticipated general fund deficits.

The additional ARRA funding resulted in decreases in general purpose revenue (GPR) expenditures in some major programs, most notably in the Medical Assistance program. As a result, total GPR spending decreased 5.8 percent or $782.0 million in FY 2009, as shown in Table 2. This compares to a 3.2 percent increase in FY 2008.

The largest portion of GPR expenditures in FY 2009 was directed to school districts and local units of government, consistent with past years. These local assistance expenditures were $7,223.9 million or 56.7 percent of total GPR spending in FY 2009 compared to $7,549.8 million or 55.8 percent of total spending in FY 2008. Aid payments to individuals and organizations were $2,200.8 million, which was 17.3 percent of total GPR spending in FY 2009 compared to 20.7 percent in FY 2008. State operations costs of $3,319.6 million accounted for 26.0 percent of total GPR spending, compared to 23.5 percent in FY 2008. This increase is due to the corresponding decreases in local assistance and aids to individuals and organizations associated with federal fiscal relief replacing GPR expenditures.

Local Assistance payments decreased by 4.3 percent. Aids to Individuals payments decreased by 21.3 percent. State operations spending increased 4.4 percent in FY 2009 down from a 5.4 percent increase in FY 2008 and an 8.0 percent increase in FY 2007.

The GPR budget is shaped by its ten largest programs, as detailed in Table 3. These programs comprised 82.9 percent of total GPR expenditures in FY 2009, down from 84.1 percent in FY 2008. Immediately following this section is a brief explanation of each program.

Table 2

GPR BUDGET BY PURPOSE
GPR Expenditures
($ Millions)

	FY09	% of Total	FY08	% of Total	$ Change FY09-FY08	% Change
Local Assistance	$7,223.9	56.7%	$7,549.8	55.8%	-$325.9	-4.3%
Aids to Individuals	2,200.8	17.3%	2,797.8	20.7%	-597.0	-21.3%
State Operations:						
UW System	1,118.6	8.8%	1,057.6	7.8%	61.0	5.8%
All Other Agencies	2,201.0	17.2%	2,121.1	15.7%	79.9	3.8%
Total	$12,744.3	100.0%	$13,526.3	100.0%	-$782.0	-5.8%
Transfer to Other Funds	0		0			
TOTAL GPR	$12,744.3		$13,526.3			

Table 3

TOP TEN PROGRAMS
GPR Expenditures
($ Millions)

	FY09	% of Total	FY08	% of Total	$ Change FY09-FY08	% Change
1. School Aids	$4,916.4	38.6%	$5,345.7	39.5%	-$429.3	-8.0%
2. UW System	1,136.1	8.9%	1,074.6	7.9%	61.5	5.7%
3. Correctional Services	1,125.4	8.8%	1,075.7	8.0%	49.7	4.6%
4. Medical Assistance	1,103.8	8.7%	1,732.5	12.8%	-628.7	-36.3%
5. Shared Revenue	946.2	7.4%	945.7	7.0%	0.5	0.1%
6. State Property Tax Credits	672.4	5.3%	593.0	4.4%	79.4	13.4%
7. Individual Tax Relief	261.0	2.0%	230.3	1.7%	30.7	13.3%
8. Community Aids	168.3	1.3%	146.4	1.1%	21.9	15.0%
9. State Supplement to SSI	137.3	1.1%	133.9	1.0%	3.4	2.5%
10. Higher Ed Financial Aid	103.7	0.8%	93.2	0.7%	10.5	11.3%
All Others	2,173.7	17.1%	2,155.3	15.9%	18.4	0.9%
Subtotal	$12,744.3	100.0%	$13,526.3	100.0%	-$782.0	-5.8%
Transfer to Other Funds	0		0			
	$12,744.3		$13,526.3			

School Aids: State GPR assistance to Wisconsin's 426 school districts decreased by 8.0 percent or -$429.3 million in FY 2009. However, with the addition of $552.3 million in ARRA funds, total aids to schools, plus property tax credits, increased by $273 million enabling the state to reimburse approximately two-thirds of school costs in FY 2009.

Since the 1993-94 school year, school districts have been subject to statewide revenue limits. These limits control the allowable increase in each school district's revenues by limiting the total revenue a district can collect from the combined sources of property tax levies for nondebt purposes and state general aids. These controls, combined with the large increase in state school aids and property tax credits, succeeded in reducing the statewide net school property tax levy by 23.9 percent in FY 1997. Since FY 1998, the net school levy has increased by an average of 4.4 percent annually.

There are two major types of direct school aid. Approximately 87 percent of school aids are general aids, distributed by a formula designed to equalize each school district's property tax base per student, and aids to support the Milwaukee Public Schools voluntary desegregation program. The remaining 13 percent are categorical aids, distributed based on local expenditures for specific activities or educational programs. The major categorical aid programs are programs for addressing special education needs and maintaining small class sizes. The percentage breakdown of general and categorical aids changes to 89 percent and 11 percent, respectively, with the inclusion of the $552.3 million of ARRA funds distributed as general aids in FY 2009.

University of Wisconsin System: Total general purpose revenue expenditures for the UW System increased by $61.5 million, or 5.7 percent in FY 2009. Tuition at UW institutions, despite annual increases, continues to be a relative bargain in higher education. Resident undergraduate tuition for students at the UW-Madison campus was $1,911 below the "Big Ten" median, and is the second lowest tuition among those schools. UW-Milwaukee was $886 below its peer group median and all other campuses were approximately $1,686 below their peer group medians in the 2008-09 academic year.

Tuition has not only remained well below peer group medians, but the affordability of a UW education for lower income families received a significant boost in the 2007-09 biennium with a 38 percent increase over the 2005-07 biennium in the amount provided for Wisconsin Higher Education Grants for UW students. Since FY 2003, financial aid for UW students has increased by 166 percent.

Correctional Services: Total GPR expenditures for the state corrections program increased $49.7 million or 4.6 percent over the prior year, reaching $1,125.4 million in FY 2009. The number of incarcerated felons under the supervision of the state adult corrections program decreased 0.76 percent from an average daily population of 23,341 in FY 2008 to 23,162 in FY 2009.

Medical Assistance: Wisconsin's state and federally funded Medical Assistance (MA) program pays for medical services to certain categories of low-income persons. Included are people with disabilities, seniors, children, low-income families and pregnant women, and other low-income individuals who have high medical expenses. Eligibility for adults with no dependent children was added to the MA program under the BadgerCare Plus Core Plan in 2009 Wisconsin Act 28.

In FY 2009, total MA expenditures, including BadgerCare Plus, were $5,919.5 million, of which $1,103.8 million were GPR, $875.5 million were SEG and the balance was funded with federal and program revenues. On an all funds basis, total Medical Assistance and BadgerCare Plus spending increased by 19.7 percent over FY 2008. The increase in segregated (SEG) expenditures reflects the implementation of a new assessment on hospital revenues in 2009 Wisconsin Act 2, a transfer of $309 million from the Permanent Endowment Fund reflecting funds associated with refinancing the state's tobacco bonds, and a transfer of $128.5 million from the Injured Patients & Families Compensation Fund. The increase in federal (FED) expenditures reflects a gain of $347 million due to the increase in the Federal Medical Assistance Percentage under the American Recovery and Reinvestment Act. In addition the program's spending was affected by continued growth in the BadgerCare Plus and Family Care programs due to the unprecedented increase in unemployment and loss of health care benefits experienced in 2009.

Segregated revenues, which are in the Medical Assistance Trust Fund, are derived from GPR-earned associated with the state's Intergovernmental Transfer Program, nursing home assessments, and additional reimbursement for residential care centers, the hospital assessment and hospital services provided to Medical Assistance recipients.

The Medical Assistance totals do not include expenditures for Wisconsin's pharmacy assistance program for the elderly, SeniorCare. In FY 2009, SeniorCare expenditures totaled $124.7 million, of which, $33.9 million was GPR, $50.7 was FED and the balance was program revenue.

Shared Revenue: State shared revenue provides unrestricted aid to municipal and county governments. In FY 2009, the shared revenue formula distributed $946.2 million GPR. Of this amount, county and municipal aids distributed were $854.7 million. The Expenditure Restraint Program distributed another $58.1 million to municipalities with tax rates over five mills that restrained their spending increases. Funding levels for both of these programs remained unchanged, notwithstanding significant economic challenges. Statewide, shared revenue payments provided municipalities with about 14.7 percent and counties with about 3.1 percent of their general revenues.

State Property Tax Credits: The School Levy Tax Credit pays local governments to relieve each property owner's taxes. Funding for the credit in FY 2009 was $672.4 million, $79.4 million more than in the prior fiscal year. This increase provided protection for property taxpayers during economically stressful times. The credit offset 7.0 percent of 2008 gross property tax levies for all purposes statewide.

Tax Relief to Individuals: Wisconsin paid out $261.0 million GPR in tax relief to individuals through a variety of programs during FY 2009.

The GPR funded Homestead Credit and Farmland Preservation Credit and the Farmland Tax Relief Credit, which is funded by lottery proceeds, are "circuit-breaker" tax credits. Circuit-breakers assist households with paying property taxes in excess of their ability to pay. Claimants receive a credit against their state income tax liability or a refund check.

Wisconsin's Homestead Credit pioneered property tax relief through circuit-breakers. The program remains one of the nation's leaders in circuit-breaker relief. The Homestead Credit provided $124.6 million of tax relief in FY 2009, compared with $125.1 million in FY 2008. About 231,000 low-income homeowners and renters – around 34 percent of them elderly – benefit from the program each year.

The Farmland Preservation Credit provides a refundable credit to 16,700 farmers who qualify through exclusive agricultural zoning or individual farmland preservation agreements. Wisconsin's Farmland Preservation Credit is one of only two similar state programs in the country. Farmland Preservation Credit expenditures totaled $12.1 million in FY 2009, slightly more than the FY 2008 spending level.

The Earned Income Credit program reduces income taxes for 241,000 low-income working families with children. In FY 2009, this program paid a total of $97.9 million in all funds to these households, an increase of $5.3 million over FY 2008.

The Veterans and Surviving Spouses Property Tax Credit reduced income taxes for approximately 550 veterans and surviving spouses by providing a credit for taxes paid on a principal dwelling. Tax credit expenditures were $2.0 million in FY 2009, an increase of $486,000 over FY 2008.

Community Aids: Community Aids are state and federal funds distributed to counties to fund human services programs serving primarily low-income persons, children in need of protection, the elderly and the disabled. Beginning in FY 2009, Community Aids funds are administered and distributed by both the Department of Health Services (DHS) and the Department of Children and Families (DCF) with total GPR expenditures reaching $168.3 million. The decrease in GPR expenditures from FY 2008 to FY 2009 in the DHS appropriation is the result of the 2007-09 budget transferring a portion of the Community Aids Basic County Allocation to DCF beginning in FY 2009.

Aging and Disability Resource Centers (ADRCs) are key components of the Family Care program, which DHS is expanding statewide. The increase in expenditures from FY 2008 to FY 2009 in the DHS appropriation reflects the creation of new ADRCs in several counties as part of the statewide Family Care expansion.

State Supplemental Income: Wisconsin provides a supplement to the federal supplemental security income (SSI) program offering cash assistance to low-income aged, blind and disabled individuals, and to disabled parents as support for their children. In FY 2009, a total of $137.3 million was expended in SSI payments. The change from FY 2008 is the result of increased caseload.

Higher Education Student Financial Aid: Higher education student financial aid includes grants, scholarships, loan programs, tuition reciprocity agreements and tuition capitation contracts that support the cost of attending public and private colleges and universities in Wisconsin. Total GPR expenditures for financial aid increased $10.5 million or 11.3 percent over the prior year, reaching a total of $103.7 million in FY 2009.

Support for the largest three financial aid programs that support undergraduates attending University of Wisconsin System, Wisconsin Technical College System and private colleges increased by 6.5 percent over the prior year and by 71 percent since FY 2003.

Comparative Condition of the General Fund
FY09 Actual vs. Budget Bill
(in Thousands)

	FY09 Actual	Budget	Variance	
OPENING BALANCES				
Unreserved, Undesignated Opening Balance	$ 130,696	$ 130,696	$ 0	1
Prior Year Designation of Continuing Balances	27,434	0	27,434	2
Prior Period Adjustment	0	0	0	
Unreserved Opening Balance	158,130	130,696	27,434	
REVENUES				
Taxes	12,113,151	12,117,500	(4,349)	3
Departmental Revenues	573,182	713,290	(140,108)	4
Total Revenues	12,686,333	12,830,790	(144,457)	
Total Available Resources	12,844,463	12,961,486	(117,023)	
APPROPRIATIONS				
Gross Appropriations	14,069,399	14,035,965	(33,434)	5
Compensation Reserves	121,299	132,618	11,319	6
Transfers	-	-	0	7
Less: Lapses	(1,435,799)	(1,277,518)	158,281	8
Net Appropriations	12,754,899	12,891,065	136,166	
UNDESIGNATED UNRESERVED BALANCE	$ 89,564	$ 70,421	$ 19,143	

Notes:

1. UNDESIGNATED, UNRESERVED OPENING BALANCE. The fund condition for the fiscal year 2009, ending June 30 is based on revenue estimates prepared by the Legislative Fiscal Bureau and actions taken under 2007 Acts 20 and 226 and 2009 Acts 2, 11, 23 and 28. The opening balance for fiscal year 2009 was based on actual revenues, appropriations and opening balance for the preceding year, the first year of the biennium.

2. PRIOR YEAR DESIGNATION FOR CONTINUING BALANCE. A portion of the previous year's gross ending balance had been designated, or set aside, to cover left over continuing budget authority that could legally be carried forward and spent in the next year. This continuing authority is generated in biennial appropriations in the first year, or even numbered year, of the biennium and in continuing appropriations each year. The fund condition summary does not include an estimate for the amount of continuing authority carried forward, and therefore, the designated amount for continuing balances is always a variance with the budget estimate.

3. TAXES. Actual tax collections were less than the estimated tax collections contained in the May 11, 2009 revenue reestimates by the Legislative Fiscal Bureau.

4. DEPARTMENTAL REVENUES. Departmental revenues are revenues received by individual state agencies and deposited in the general fund. Departmental revenues include tribal gaming revenue. Tribal gaming revenues were equal to the estimates due for FY09. In addition, the estimate used in the fund condition summary assumed that the entire amount of DOA-determined lapses and transfers from state agencies would be allocated to departmental revenues. However, some of those reductions actually occurred as lapses from GPR appropriations.

5. GROSS APPROPRIATIONS. Final gross appropriations varied from estimated gross appropriations as follows:

Gross Appropriations Per the fund condition summary	14,035,965
Add: continuing appropriation authority brought forward	27,434
Add: increases to sum sufficient appropriations above Chapter 20	6,000
Add: fiscal year legislation other than budget bill legislation	0
Add: biennial adjustment from the prior year included above	0
FINAL GROSS APPROPRIATIONS	14,069,399

6. COMPENSATION RESERVES. Compensation reserves are budgetary set-asides for employee wage and benefit increases for the fiscal year.

7. TRANSFERS. No transfers were enumerated in the fund condition summary.

8. LAPSES. A lapse is the automatic termination of an appropriation. It represents the amount of unexpended, unencumbered balance of the appropriation at the end of the fiscal year. Actual lapses may differ from budgeted lapses due to the manner in which the legislature treats certain required appropriation reductions.

Statements of Fund Condition and Operations

20-Year Comparison of Wisconsin's Ending General Fund Unreserved Balances

(In Millions of Dollars)

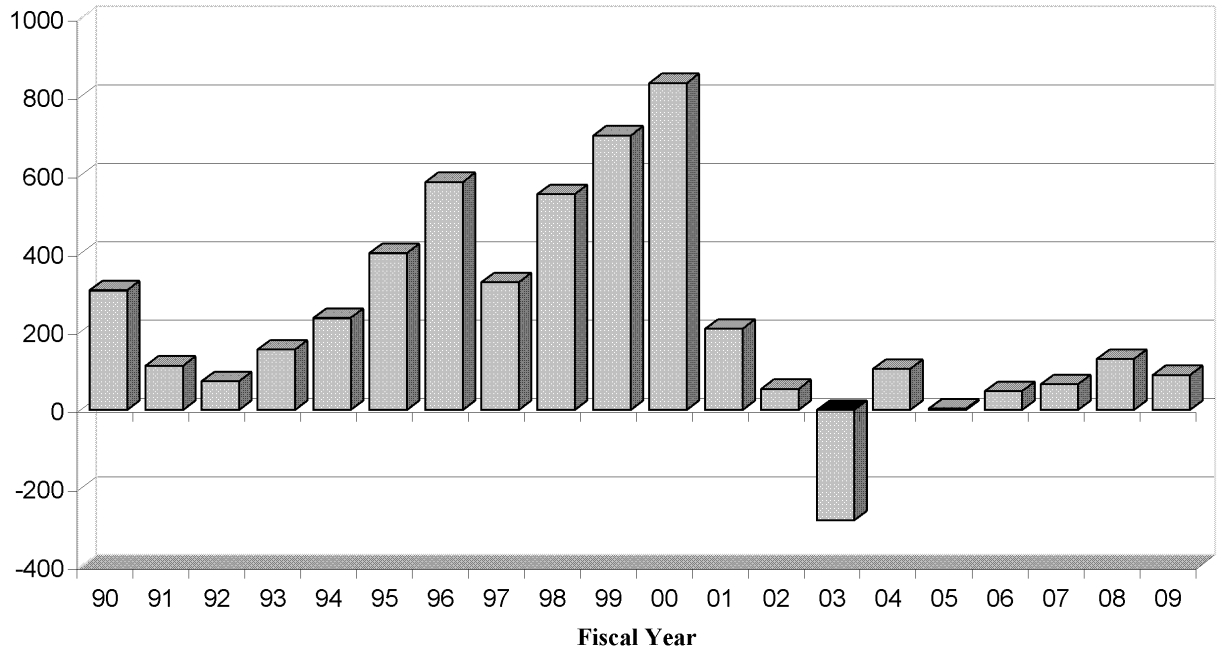


Exhibit A-1

State of Wisconsin
Statement of Recorded Revenues, Expenditures and Fund Balance-Budget vs.
Actual-General Purpose Revenues-Statutory Basis
For the Fiscal Year Ended June 30, 2009
(In Thousands)

	Budget			Actual	Variance
	Published Budget	Appropriation Adjustments	Final Budget		
Beginning Unreserved Undesignated Balance	$ 130,696	$	$ 130,696	$ 130,696	$ 0
Beginning Unreserved Designated Balance		27,434	27,434	27,434	0
Total	130,696	27,434	158,130	158,130	0
REVENUES					
Taxes:					
Individual	6,185,000		6,185,000	6,222,735	37,735
Corporation	615,000		615,000	629,523	14,523
Sales & Use	4,130,000		4,130,000	4,083,959	(46,041)
Excise	653,800		653,800	647,621	(6,179)
Inheritance & Gift	21,000		21,000	20,853	(147)
Public Utility	320,700		320,700	320,110	(590)
Insurance	140,000		140,000	136,291	(3,709)
Miscellaneous	52,000		52,000	52,059	59
Total Taxes	12,117,500		12,117,500	12,113,151	(4,349)
Departmental Revenue:					
Indian Gaming Revenue	93,922		93,922	93,946	24
Other	619,368		619,368	327,550	(291,818)
Total Department Revenues	713,290		713,290	421,496 (2)	(291,794)
Total Revenues	12,830,790		12,830,790	12,534,647	(296,143)
TOTAL AVAILABLE	12,961,486	27,434	12,988,920	12,692,777	(296,143)
EXPENDITURES					LAPSE
Commerce	57,571	4,390	61,961	60,855	1,106
Education	7,043,409	53,781	7,097,190	6,387,674	709,516
Environmental Resources	260,259	1,648	261,907	250,519	11,388
Human Relations & Resources	3,767,002	74,693	3,841,695	3,427,096	414,599
General Executive	561,451	3,137	564,588	291,330	273,258
Judicial	113,948	2,592	116,540	115,078	1,462
Legislative	69,628	3,037	72,665	63,517	9,148
General (Incl. Shared Revenue)	2,162,697	856	2,163,553	2,148,231	15,322
Compensation Reserves	132,618	(121,299)	11,319	0	11,319
Less: Estimated Lapse	(1,277,518)	0	(1,277,518)	0	(1,277,518)
TOTAL EXPENDITURES	12,891,065	22,835	12,913,900	12,744,300	169,600
Transfers in - General Fund	0	0	0	151,686 (2)	151,686
UNRESERVED BALANCE	70,421	4,599	75,020	100,163	25,143
Designation for continuing balances	0	(10,599)	(10,599)	(10,599)	0
UNRESERVED Undesignated Balance	$ 70,421	$ (6,000)	$ 64,421	$ 89,564	$ 25,143
	(1)				

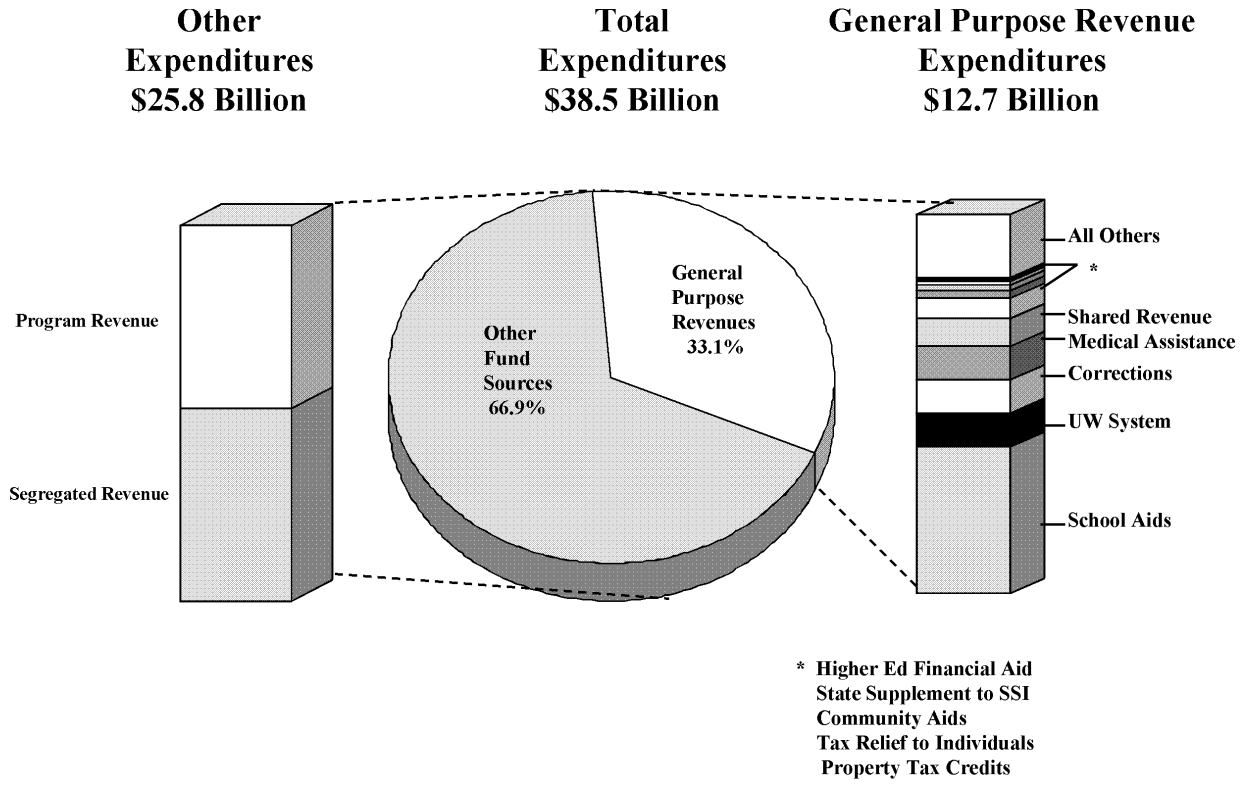
The accompanying notes are an integral part of this statement.

(1) See Note E

(2) See Note F

Total Expenditures by Fund Source, State of Wisconsin

For the Fiscal Year Ended June 30, 2009



For more detail on expenditures, see Schedule A-2

Exhibit A-2

State of Wisconsin

Statement of Recorded Revenues, Expenditures, and Changes in Fund Balance

All Funds - Statutory Basis

For the Fiscal Year Ended June 30, 2009

(In Thousands)

	General Fund			Major Special Revenue Funds			As of
	General Purpose	Program Revenue	Subtotal	Transportation	Conservation	Other	June 30, 2009
REVENUES							
Taxes	$ 12,113,151	$ 26,270	$ 12,139,421	$ 1,004,989	$ 93,035	$ 71,908	$ 13,309,353
Intergovernmental Revenue	9,031	8,402,709	8,411,740	975,369	46,924	40,932	9,474,965
Licenses	69,697	168,270	237,967	485,576	107,597	616,530	1,447,670
Charges for Goods and Services	12,867	2,767,132	2,779,999	39,711	24,882	528,739	3,373,331
Contributions	0	0	0	0	0	2,826,104	2,826,104
Interest & Investment Income	3,217	53,959	57,176	3,378	147	(15,010,518)	(14,949,817)
Gifts & Donations	383	570,341	570,724	4	1,614	14,227	586,569
Other Revenue	123,759	572,714	696,473	17,026	1,033	1,467,871	2,182,403
Transfers	10,661	(64,776)	(54,115)	10,723	22,810	1,020,053	999,471
Other Transactions	191,881	46,980	238,861	65	1	108,118	347,045
Proceeds from Bonds & Notes	0	0	0	175,616	0	545,425	721,041
TOTAL REVENUES	12,534,647	12,543,599	25,078,246	2,712,457	298,043	(7,770,611)	20,318,135
EXPENDITURES							
Commerce	60,855	202,225	263,080	0	1,654	139,299	404,033
Education	6,387,674	4,742,589	11,130,263	0	532	431,589	11,562,384
Environmental Resources	250,519	77,047	327,566	2,808,851	301,981	418,971	3,857,369
Human Relations & Resources	3,427,096	6,934,495	10,361,591	0	0	2,074,926	12,436,517
General Executive	291,330	553,394	844,724	1,550	0	6,165,751	7,012,025
Judicial	115,078	15,463	130,541	0	0	325	130,866
Legislative	63,517	1,772	65,289	0	0	0	65,289
General (Incl. Shared Revenue)	2,148,231	8,731	2,156,962	22,396	149	848,393	3,027,900
TOTAL EXPENDITURES	12,744,300	12,535,716	25,280,016	2,832,797	304,316	10,079,254	38,496,383
EXCESS OF REVENUES OVER (UNDER) EXPENDITURES	(209,653)	7,883	(201,770)	(120,340)	(6,273)	(17,849,865)	(18,178,248)
BEGINNING FUND BALANCE							
PRIOR PERIOD ADJUSTMENT	0	0	0	0	0	0	0
DESIGNATED	27,434	0	27,434	0	0	0	27,434
UNDESIGNATED	130,696	(20,272)	110,424	(862,435)	16,832	82,297,535	81,562,356
TOTAL	158,130	(20,272)	137,858	(862,435)	16,832	82,297,535	81,589,790
INTER-FUND TRANSFERS	151,686	(114,342)	37,344	(6,803)	0	(30,541)	0
ENDING FUND BALANCE	100,163	(126,731)	(26,568)	(989,578)	10,559	64,417,129	63,411,542
DESIGNATED	(10,599)	0	(10,599)	0	0	0	(10,599)
UNDESIGNATED	$ 89,564	$ (126,731)	$ (37,167)	$ (989,578) (1)	$ 10,559	$ 64,417,129	$ 63,400,943

The accompanying notes are an integral part of this statement.

(1) See Note I

Exhibit A-3

State of Wisconsin
Summary of Recorded Revenues and Expenditures-All Other Funds-
Statutory Basis (Including Inter-Fund Transfers)
For the Fiscal Year Ended June 30, 2009
(In Thousands)

	Funds By Category	Undesignated Fund Balance as of June 30, 2008	Revenues	Expenditures	Inter-Fund Transfers	Undesignated Fund Balance as of June 30, 2009
	OTHER GOVERNMENTAL FUNDS					
	Other Special Revenue					
213	Heritage State Parks & Forests	$ 1,404	$ 19	$ 0	$ 0	$ 1,423
217	Waste Management	7,649	109	32	0	7,726
218	Wisconsin Election Campaign	1,056	391	205	0	1,242
219	Investment and Local Impact	202	3	0	0	205
220	Election Administration	16,553	325	3,929	0	12,949
222	Industrial Building Contruction	403	5	0	0	408
224	Self-Insured Employer Liability	208	26	43	0	191
225	Medical Assistance Trust	272	111,534	709,697	598,369	478
226	Work Injury Benefits	8,450	5,322	5,517	0	8,255
227	Workers Compensation	1,117	12,851	12,135	(688)	1,145
229	Uninsured Employers	11,997	3,661	4,322	0	11,336
234	Hospital Assessment Fund	0	335,189	165,836	(154,068)	15,285
235	Utility Public Benefits	5,580	91,776	100,237	0	(2,881)
238	Mediation	93	235	325	0	3
250	State Capitol Restoration	82	12	0	0	94
257	Agricultural Chemical Cleanup	4,407	2,647	2,634	(1,750)	2,670
258	Farms For The Future	0	0	0	0	0
259	Agrichemical Management	3,050	7,349	6,220	(640)	3,539
261	Agricultural Producer Security	9,078	1,982	1,448	0	9,612
264	Historical Legacy Trust	72	1	0	0	73
266	Historical Preservation Partnership Trust	1,198	3,391	3,221	(195)	1,173
268	Wireless 911	(8,207)	3,483	(24,737)	0	20,013
272	Petroleum Inspection	9,365	45,227	33,678	(16,890)	4,024
274	Environmental	3,715	47,213	39,971	(8,806)	2,151
277	Dry Cleaner Environmental Responsibility	201	1,024	1,110	0	115
279	Recycling	17,168	55,547	51,082	(14,773)	6,860
280	Information Technology Investment	(2,839)	25	0	0	(2,814)
285	Universal Service	8,894	31,401	40,991	(600)	(1,296)
286	Budget Stabilization	1,286	180	0	0	1,466
291	Permanent Endowment	0	307,055	0	(309,000)	(1,945)
723	Children's Trust	123	8	18	0	113
	Total Other Special Revenue	102,577	1,067,991	1,157,914	90,959	103,613
	Debt Service					
315	Bond Security and Redemption	29,301	648,515	675,379	0	2,437
	Capital Projects					
490	State Building Trust	44,306	147,742	139,023	0	53,025
495	Capital Improvement	89,087	552,059	552,212	(1,377)	87,557
	Total Capital Projects	133,393	699,801	691,235	(1,377)	140,582
	Permanent					
743	Agriculture College	305	0	0	0	305
744	Common School Principal	738,804	37,573	0	0	776,377
745	Normal School	23,050	(335)	0	0	22,715
746	University	234	0	0	0	234

Exhibit A-3

State of Wisconsin
Summary of Recorded Revenues and Expenditures-All Other Funds-
Statutory Basis (Including Inter-Fund Transfers)
For the Fiscal Year Ended June 30, 2009
(In Thousands)

	Funds By Category	Undesignated Fund Balance as of June 30, 2008	Revenues	Expenditures	Inter-Fund Transfers	Undesignated Fund Balance as of June 30, 2009
760	Historical Society Trust	11,199	(1,992)	453	0	8,754
763	Common School Income	5,462	30,973	35,301	0	1,134
767	Benevolent	14	0	0	0	14
875	University Trust Principal	171,376	7,597	0	0	178,973
876	University Trust Income	35,316	21,727	19,130	0	37,913
	Total Permanent	985,760	95,543	54,884	0	1,026,419
	TOTAL OTHER GOVERNMENTAL FUNDS	1,251,031	2,511,850	2,579,412	89,582	1,273,051
	FIDUCIARY AND OTHER					
	Pension (and Other Employee Benefit)					
262	Public Employe Trust	1,599,895	103,407	115,852	0	1,587,450
747	Core Retirement Investment Trust	72,243,635	(10,762,398)	5,108,496	0	56,372,741
751	Variable Retirement Investment	5,966,552	(1,355,011)	475,322	0	4,136,219
	Total Pension (and Other Employee Benefit)	79,810,082	(12,014,002)	5,699,670	0	62,096,410
	Private Purposes					
570	Tuition Trust	9,330	(414)	24	0	8,892
769	College Savings Program Trust	7,220	822	635	0	7,407
	Total Private Purposes	16,550	408	659	0	16,299
	Agency					
788	Support Collections Trust	16,309	963,718	967,311	0	12,716
	Other (Business-type funds)					
521	Lottery	11,081	475,232	477,514	0	8,799
531	Local Govt Property Insurance	51,862	22,852	23,448	0	51,266
532	State Life Insurance	93,558	6,481	3,796	0	96,243
533	Injured Patients & Families Compensation	734,762	22,503	61,267	(128,500)	567,498
573	Environmental Improvement	180,607	146,938	132,303	0	195,242
582	Veterans Trust	22,473	18,491	20,553	7,000	27,411
583	Veterans Mortgage Loan Repayment	109,031	74,626	113,070	1,377	71,964
587	Transportation Infrastructure Loan	189	292	251	0	230
	Total Other (Business-type funds)	1,203,563	767,415	832,202	(120,123)	1,018,653
	TOTAL FIDUCIARY AND OTHER	81,046,504	(10,282,461)	7,499,842	(120,123)	63,144,078
	TOTAL - ALL FUNDS	$ 82,297,535	$ (7,770,611)	$ 10,079,254	$ (30,541)	$ 64,417,129

The accompanying notes are an integral part of this statement

Exhibit A-4

State of Wisconsin
Comparative General Fund Statement of Assets, Liabilities and Fund Balance
Fiscal Years Ended June 30, 2009, 2008, and 2007
(In Thousands)

	June 30, 2009	June 30, 2008	June 30, 2007
ASSETS			
Cash	$ (142,628)	$ 29,559	$ 53,874
Contingent Fund Advances	3,123	3,128	3,128
Investments	0	255	255
Accounts Receivable	1,131,883	1,105,242	947,740
Due from Other Funds	289,751	103,115	31,131
Inventory	660	460	327
Prepayments	92,088	85,226	75,134
Other Assets	153,098	155,844	2,347
TOTAL ASSETS	1,527,975	1,482,829	1,113,936
LIABILITIES			
Accounts Payable	678,702	531,477	347,758
Operating Notes Payable	8,000	8,000	6,000
Due to Other Funds	110,144	118,633	120,299
Tax and Other Deposits	53,713	60,175	41,986
Deferred Revenue	172,343	103,985	20,942
TOTAL LIABILITIES	1,022,902	822,270	536,985
FUND BALANCE			
Reserved Balances			
GPR Encumbrances	111,468	94,950	117,186
PR Encumbrances	420,173	427,751	416,475
Total Reserved Balances	531,641	522,701	533,661
Unreserved Designated Balances			
GPR Designation for Continuing Balances	10,599	27,434	6,823
Unreserved Balances			
GPR Unreserved Balance	89,564	130,696	66,288
PR Unreserved Balance	(126,731)	(20,272)	(29,821)
Total Unreserved Balances	(37,167)	110,424	36,467
TOTAL FUND BALANCE	505,073	660,559	576,951
TOTAL LIABILITIES AND FUND BALANCE	$ 1,527,975	$ 1,482,829	$ 1,113,936

The accompanying notes are an integral part of this statement

Exhibit A-5
Budget vs Actual Expenditures
All Funds Statutory Basis
For the Fiscal Year Ended June 30, 2009
(in Thousands)

	Budget			Actual	
Function/Expenditure Description	Published Budget [2]	Budget Adjustments	Final Budget	Expenditures [1]	Lapses and Balances
Commerce	$ 477,023	$ 57,020	$ 534,043	$ 396,150	$ 137,893
Education	11,276,478	404,202	11,680,680	10,653,626	1,027,054
Environmental Resources	3,442,408	871,426	4,313,834	3,473,483	840,351
Human Relations and Resources	9,877,388	1,817,667	11,695,055	10,545,346	1,149,709
General Executive	1,274,350	221,570	1,495,920	1,041,546	454,374
Judicial	129,517	4,150	133,667	130,689	2,978
Legislative	71,588	3,037	74,625	65,280	9,345
General Appropriations	2,371,540	(19,654)	2,351,886	2,318,159	33,727
Total Chapter 20	$ 28,920,292	$ 3,359,418	$ 32,279,710	$ 28,624,279	$ 3,655,431
Retirement Annuities			6,129,923	5,558,269	571,654
Support Collection Trust Payments			975,200	966,262	8,938
Insurance Premiums			88,128	66,314	21,814
Debt Service Payments			675,379	675,379	-
Capital Projects Expenditures			688,247	688,247	-
Lottery Prizes			285,801	279,666	6,135
Other Segregated Revenue			751,937	372,524	379,413
Program Revenue Appropriations			1,228,470	1,213,821	14,649
Clearing and Custody Accounts			1,201,475	(1,895)	1,203,370
Total Non Chapter 20 Expenditures			$ 12,024,560	$ 9,818,587	$ 2,205,973
Total State Expenditures Excluding Transfers			$ 44,304,270	$ 38,442,866	$ 5,861,404

The accompanying notes are an integral part of this statement

[1] Expenditures exclude non-budgetary transfers and expenses

[2] The budget amount is the fund condition for FY2009 and is based on actions taken under 2007 Acts 20 and 226 and 2009 Acts 2, 11, 23 and 28.

Notes To Fund Statements

Note A Statutory Basis of Accounting

The State of Wisconsin Annual Fiscal Report is a report of financial results recognized on the statutory basis of accounting, for the fiscal year, against the state's budget as reflected in Chapter 20 of the Wisconsin Statutes. The report is not intended to display accounting information in accordance with Generally Accepted Accounting Principles (GAAP).

The State's Comprehensive Annual Financial Report, which is prepared in accordance with GAAP is issued under a separate cover at the end of the calendar year.

Statutes generally require that revenues and expenditures be recognized in the fiscal year in which they are received or paid, with specific exceptions. The legislature may change the recognition of revenues and expenditures among fiscal years.

The state's centralized accounting records remain open until July 31 (August 15 for income, sales and use tax receipts) to permit the state departments to record revenues and expenditures applicable to the fiscal year ended June 30.

The July and August recording of prior fiscal years' revenues and expenditures results in accrued revenues and accounts payable in the statement of assets, liabilities and fund balances. Included in these amounts are receivables and payables between funds which are not eliminated for presentation as "due to" or "due from" other funds.

Encumbrances are treated as expenditures in the initial year. However, the recording of charges against encumbrances applicable to the prior year is limited by the available appropriation balances of that year. Expenditures reported in this report are equal to current year disbursement and encumbrance balances less the prior year encumbrance balances. The Building Trust Fund, the Capital Improvement Fund, and the Bond Security and Redemption Fund are closed for encumbrances as of June 30.

Note that the health and life insurance premiums are paid two months in advance of the actual coverage months. The health and life insurance costs for the last two months of the fiscal year are recorded as expenditures in the following fiscal year.

All investments owned by the state retirement funds are an exception to the requirement to recognize revenues and expenditures on the cash basis since investments are adjusted to market and the resultant unrealized gains or losses are reflected in the accounts of those funds.

State statutes also provide that contributions to the state retirement funds received after August 1, which relate to earnings paid for services rendered in the previous fiscal year, may be recorded as revenues of the previous fiscal year.

In addition, state administrative policies require that revenues and expenditures be reported on a net basis; i.e., overcollections refunded are deducted from revenues, and overpayments collected are deducted from expenditures. Collections on loan principal and interest are recorded as receipts.

Certain unused appropriation balances may be allowed to continue for use in future years, rather than lapse to the General Fund. In these cases the continuing balances are treated as reserves for Program Revenue (PR) or General Purpose Revenue (GPR) balances. GPR consists of general taxes and miscellaneous revenues which are paid into the general fund and are then available for appropriation by the legislature. PR consists of funds also paid into the General Fund which are dedicated for specific purposes and are appropriated by the legislature as estimates through the use of revolving accounts.

Note B Fiscal Controls

The State Constitution provides that no money shall be paid out of the Treasury except as appropriated by law. The Secretary of Administration exercises detail allotment control over all agency appropriations and approval authority over all encumbrances. The Secretary of Administration is also responsible for the audit of expenditures.

The Department of Administration maintains separate accounts for all appropriations showing the amounts appropriated, the amounts allotted, the amounts encumbered, the amounts disbursed and certain other data necessary to the financial management and control of all state accounts. The department also maintains the general ledgers of the funds of the state including the General Fund.

Note C Classification of Funds

Funds are generally classified in accordance with classification criteria appropriate for governmental accounting.

However, certain activities of a proprietary and fiduciary nature are combined within the Governmental and Trust, Agency and Other Funds. In addition, the activities of the State Building Trust Fund, included within the Capital Projects classification, consist of capital projects as well as projects for the maintenance and repair of state facilities.

Note D Extraordinary Transfers and Transactions Affecting Fund Balance

Compensation Reserve

In FY09, Chapter 20 included a compensation reserve for employe salary and fringe benefit increases. The total amount reserved (appropriated) was $132,617,900 and the amount allotted was $121,298,800 leaving a lapse amount of $11,319,100.

Note E Published Budget

The published budget amounts used in Exhibit A-1 are based on the fund condition statement under 2007 Acts 20 and 226 and 2009 Acts 2, 11, 23 and 28.

The adjustments column reflects legislation passed subsequent to the budget act, statutorily required appropriation adjustments to sum-sufficient and biennial appropriations and appropriation changes enacted under the statutory authority of the Legislative Joint Finance Committee or by statutory authority under program supplements.

The State of Wisconsin utilizes a budgetary procedure within the General Fund which treats most federal grant revenues, licenses and fees and revenues for proprietary activities as dedicated for the activities to which they relate. As such, variable budgeting techniques are used and the official state budget includes them only as estimates. These accounts, referred to as Program Revenue Appropriations, are not included in Exhibit A-1. Only those appropriations made from nondedicated General Purpose Revenues are included.

Note F Total Departmental Revenues

For budget comparison purposes, inter-fund transfers are added to other revenues to arrive at total departmental revenues. In FY 2009, a $6,730,300 transfer from the Transportation Fund and other cash transfers of $144,955,889 required by law were recorded into the General Fund for a total of $151,686,189, rather than as revenues. The fund condition captured these funds more generically as revenue. In order to properly compare actual revenues to budgeted revenues, actual revenues and transfers should be added together in order to compare to the departmental revenues in the fund condition statement.

Note G Projected-to-Actual General Fund Condition

The variance between the published budgeted ending balance and actual undesignated balance at the end of fiscal year 2009 is explained as follows:

		(thousands)
ENDING FUND BALANCE (UNDESIGNATED) PER FINAL CHAPTER 20 SUMMARY	$	70,421
OPENING BALANCE ADJUSTMENTS:		
Prior year designation for continuing balances		27,434
Total opening balance adjustments		27,434
REVENUE ADJUSTMENTS		
Taxes received less than estimate		(4,349)
Departmental revenues less than estimate		(291,794)
Total revenue below estimate		(296,143)
APPROPRIATION ADJUSTMENTS		
Sum Sufficient Changes Reestimates		(6,000)
Budget brought forward from previous year		(27,434)
Budget carried to next year for continuing appropriations		10,599
Total Appropriation Adjustments		(22,835)
LAPSES MORE THAN BUDGETED		169,600
INTER-FUND TRANSFERS		151,686
DESIGNATION FOR CONTINUING BALANCES		(10,599)
UNDESIGNATED FUND BALANCE	$	89,564

Note H General Fund Cash Flow

Without corrective action, the General Fund can experience a short-term cash flow problem during the first half of each fiscal year. A temporary reduction in cash balances occurs every year due to a mismatch between the timing of receipts and disbursements. The majority of receipts are collected in the second half of the year while payments are more evenly distributed. Because of this mismatch, a $800 million operating note was issued in fiscal year 2009. The note reduced borrowing from other operating funds and ensured timely payments to local governments and the state's suppliers. The proceeds of the note and their timely repayment allowed the General Fund to more closely match receipts and payments. The operating note sinking fund payments were met as scheduled and the full amount of the note plus accured interest was repaid on June 15, 2009.

Note I Negative Transportation Fund Balances

The negative ending fund balance in the Transportation Fund represents commitments (encumbrances) recorded as expenditures in the current year which will be funded by the Federal and/or local governments in the future.

Note J Unappropriated Activities

The Department of Commerce and the Department of Justice enter into contracts with private vendors for programs that they manage. The Department of Justice enters into these contracts on behalf of the Department of Transportation and the Department of Public Instruction. These contracts have not been budgeted within a state appropriation and therefore, this activity is summarized here to provide full disclosure of state agency operations.

	Commerce	Justice
Revenues	$1,724,241	$129,474
Expenditures	$1,724,241	$129,474
Balance	$0	$0

Note K Sum Sufficient Increases

The B-2 Exhibit shows both lapsing amounts and adjustments to sum sufficient appropriations. In order to correctly show the lapsing amounts the increase column includes supplements. These supplements need to be removed to calculate the Actual Sum Sufficient Increases.

B-2 Sum Sufficient Increases	$10,009
Less Supplements (included in total above)	(4,009)
Actual Sum Sufficient Increases	6,000

Supplemental Data

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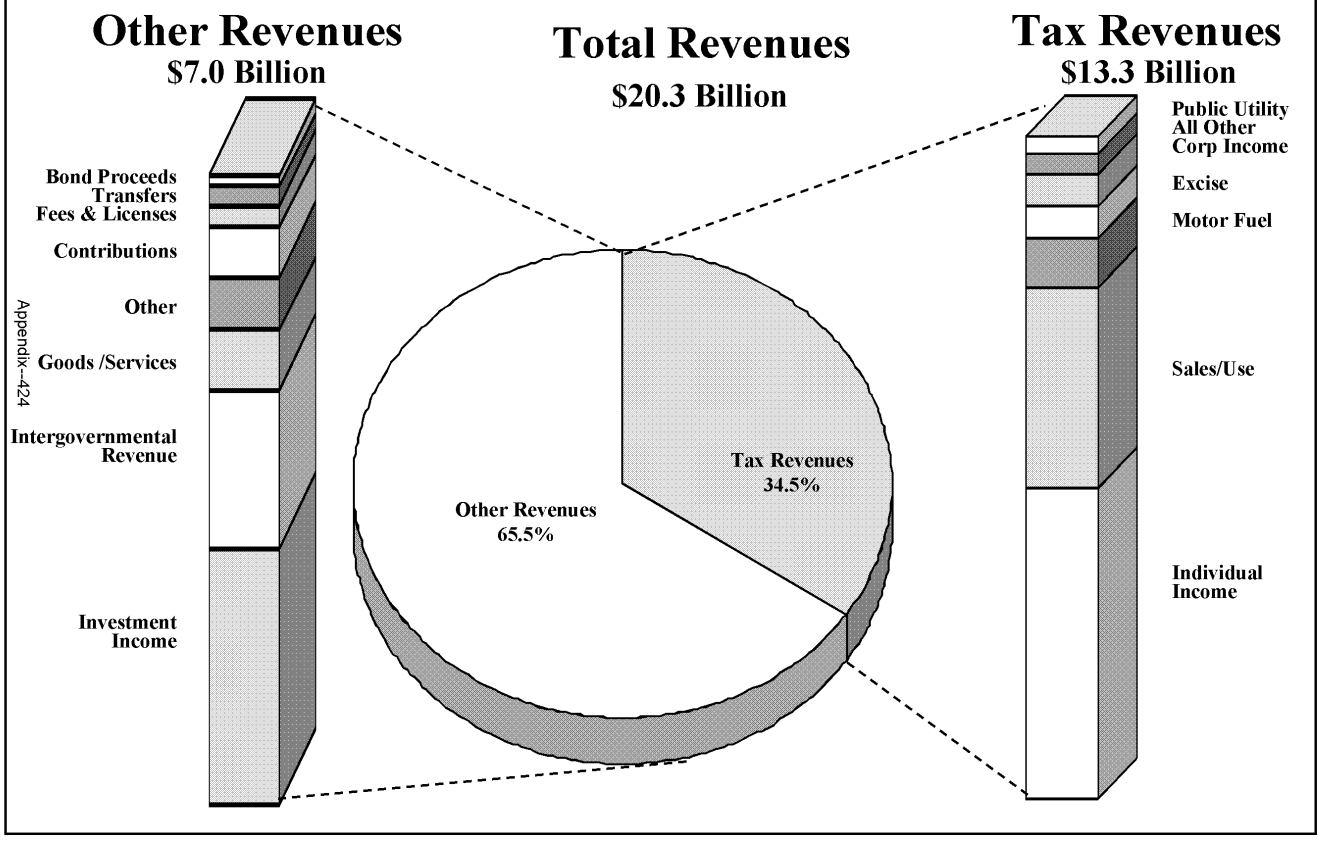
Total Revenues, State of Wisconsin

For the Fiscal Year Ended June 30, 2009



For more detail on revenues, see Schedule A-2

Exhibit B-1

State of Wisconsin
Analysis of Revenues-All Funds
Fiscal Years Ended June 30, 2009, 2008, and 2007
(In Thousands)

	June 30, 2009	June 30, 2008	June 30, 2007
TAX REVENUES			
General Purpose Revenue			
Income Taxes			
Individual	$ 6,222,735	$ 6,713,681	$ 6,573,778
Corporation	629,523	837,807	890,056
Total Income Taxes	6,852,258	7,551,488	7,463,834
Sales and Excise Taxes			
General Sales and Use	4,083,959	4,268,045	4,158,612
Cigarette	551,337	455,722	296,129
Other Tobacco Products	42,238	29,747	17,515
Liquor and Wine	44,133	45,166	42,674
Malt Beverage (Beer)	9,913	9,624	9,530
Total Sales and Excise Taxes	4,731,580	4,808,304	4,524,460
Public Utility Taxes			
Private Light, Heat and Power	223,471	212,126	195,429
Municipal Light, Heat and Power	2,747	2,704	2,335
Telephone	63,455	59,542	65,255
Pipeline	16,183	11,189	10,668
Electric Cooperative	10,549	9,359	8,826
Municipal Electric	3,459	2,238	2,044
Conservation and Regulation	237	264	291
Utility Tax (Refunds) Interest and Penalties	9	38	92
Total Public Utility Taxes	320,110	297,460	284,940
Inheritance and Estate Taxes			
Inheritance and Estate	20,853	158,789	121,114
Total Inheritance and Estate Taxes	20,853	158,789	121,114
Miscellaneous Taxes			
Insurance Companies (Premiums)	136,291	156,606	141,405
Real Estate Transfer Fee	41,160	59,447	71,731
Lawsuits (Courts)	10,789	10,736	10,407
Other	110	113	106
Total Miscellaneous Taxes	188,350	226,902	223,649
TOTAL GPR TAX REVENUES	12,113,151	13,042,943	12,617,997
Program Tax Revenues			
Fire Dues	15,758	15,466	15,362
Pari-mutuel Taxes	679	908	1,017
County Expo Tax Administration	456	151	450
Baseball Park Administration Fee	389	322	400

Exhibit B-1

State of Wisconsin
Analysis of Revenues-All Funds
Fiscal Years Ended June 30, 2009, 2008, and 2007
(In Thousands)

	June 30, 2009	June 30, 2008	June 30, 2007
Program Tax Revenues, Cont.			
Business Trust Regulation Fee	$ 2,579	$ 1,442	$ 1,886
Other	6,409	4,127	773
TOTAL PROGRAM TAX REVENUES	26,270	22,416	19,888
TOTAL-GENERAL FUND TAX REVENUES	12,139,421	13,065,359	12,637,885
Type of Revenues			
Transportation Fund			
Motor Fuel Tax	968,811	999,949	994,677
Air-Carrier Tax	5,388	6,701	6,690
Railroad Tax	21,612	19,856	18,255
Aviation Fuel Tax	1,360	1,391	1,523
Other Taxes	7,818	7,143	7,640
Conservation Fund			
2/10 Mill Forestry Mill Tax	87,364	84,529	82,446
Forest Crop Taxes	5,669	5,290	4,959
Mediation Fund	2	2	2
Petroleum Inspection Tax	44,740	47,013	52,471
Recycling Fund			
Temporary Service Charges	27,168	25,091	23,527
TOTAL STATE TAX REVENUES	13,309,353	14,262,324	13,830,075
Intergovernmental Revenue	9,474,965	7,726,329	7,369,155
Licenses and Permits	1,447,670	1,068,095	1,046,966
Charges for Goods and Services	3,373,331	3,170,633	3,035,751
Contributions	2,826,104	2,672,069	2,540,834
Interest and Investment Income	(14,949,817)	(4,432,460)	13,879,927
Gifts and Donations	586,569	414,079	498,194
Proceeds from Sale of Bonds	721,041	524,289	973,120
Other Revenues	2,182,403	1,769,089	1,804,042
Other Transactions	347,045	278,050	256,366
TOTAL DEPARTMENTAL REVENUES	6,009,311	13,190,173	31,404,355
TRANSFERS	999,471	1,213,609	1,029,551
TOTAL REVENUES	$ 20,318,135	$ 28,666,106	$ 46,263,981

The accompanying notes are an integral part of this statement

Exhibit B-2

General Fund Sum Sufficient Appropriations
For the Fiscal Year Ended June 30, 2009
(In Thousands)

Agency	Appr			Chapter 20	Increases	Expenditures	Lapse
State Operations							
370	116	1fe	Endangered Resources General Fund	500	0	453	47
410	104	1c	Reimbursement Claims from Counties With State Institutions	56	5	61	0
455	102	1b	Special Counsel	806	0	724	82
455	202	2am	Officer Training Reimbursement	67	17	65	19
455	504	5d	Reimbursement for Forensic Examinations	50	7	57	0
465	103	1c	Public Emergencies	54	0	42	12
505	405	4d	Claims Awards	24	0	0	24
505	801	8am	Interest on racing & bingo moneys	12	0	1	11
511	103	1be	Investigations	50	0	46	4
515	103	1c	Contingencies	30	(30)	0	0
515	104	1c	Badgerrx for Individual Advances	19	0	13	6
525	101	1a	Governor's Office Administration	3,627	52	3,331	348
525	102	1b	Contingent Fund	21	0	2	19
525	103	1c	Membership In National Assoc	126	0	126	0
525	201	2a	Executive Residence	248	69	317	0
625	101	1a	Circuit Courts	65,362	2,244	66,494	1,112
660	101	1a	Court Of Appeals	9,632	69	9,688	13
680	101	1a	Supreme Court	4,866	38	4,779	125
765	101	1a	Assembly	24,704	0	22,798	1,906
765	103	1b	Senate	17,766	0	15,063	2,703
765	104	1d	Legislative Documents	4,108	0	3,682	426
765	308	3fa	Membership In National Assoc	215	0	209	6
855	101	1a	Obligation on Opeating Notes	13,000	0	12,503	497
855	102	1b	Operating Note Expenses	150	25	173	2
855	108	1bm	Payment of Cancelled Drafts Fund 100 - All except UW	2,025	0	1,292	733
855	108	1bm	Payment of Cancelled Drafts Fund 100 - UW	0	25	17	8
855	401	4a	Interest on overpayment of taxes	1,500	1,235	2,735	0
855	403	4c	Minnesota Income Tax Reciprocity	75,880	0	75,880	0
855	405	4e	Transfer to Conservation Fund - Land Acquisition	153	0	153	0
855	409	4fm	Transfer to Transportation Fund - Hub Facility Exemption	1,953	0	1,953	0
855	413	4cm	Illinois Income Tax Reciprocity	42,270	0	42,267	3
865	101	1a	Judgement & Legal Expenses	47	0	0	47
			Total State Operations	269,321	3,756	264,924	8,153
Aids and Local Assistance							
115	202	2b	Animal Disease Indemnities	25	0	1	24
235	104	1e	MN-WI Student Reciprocity	11,930	631	12,561	0
235	106	1fe	Wisconsin Higher Education Grants	55,000	0	54,986	14
235	109	1fy	Academic Excellence	3,175	0	3,123	52
255	218	2fm	Charter Schools	43,545	0	42,682	863
255	221	2ep	Second Chance Partnership	189	9	198	0
255	235	2fu	Milwaukee Parental Choice Program	128,836	0	128,503	333
255	306	3c	National Teacher Certification	1,772	0	1,472	300
285	406	4dd	Lawton Minority Undergraduate Grants	6,175	64	6,239	0
370	503	5da	Aids In Lieu Of Taxes	6,500	0	6,352	148
435	715	7ed	State Supplement to Federal Supplemental Security Income Program	138,273	0	137,316	957
435	774	7da	Reimburse Local Units of Government	400	0	400	0
445	102	1aa	Special Death Benefit	479	5	484	0
465	201	2a	Tuition Grants	3,719	0	2,918	801
465	305	3e	Disaster Recovery Aids	7,547	940	8,487	0
505	412	4er	Volunteer Firefighter & EMT Service Award Program	1,785	0	1,694	91
511	102	1b	Election Related Cost Reimbursement	100	0	100	0
515	101	1a	Annuity Supplements And Payments	1,037	0	1,024	13
835	101	1c	Expenditure Restraint Program Account	58,146	0	58,146	0
835	102	1d	Shared Revenue Account	33,683	0	33,400	283
835	105	1db	County and Municipal Aids Account	854,418	286	854,704	0
835	109	1e	State Aid; Tax Exempt Property	67,969	0	67,967	2
835	110	1dm	Public Utility Distribution Account	6,242	0	6,242	0
835	202	2b	Claim of Right Credit	0	232	232	0
835	203	2c	Homestead Tax Credit	124,300	332	124,632	0

Exhibit B-2

General Fund Sum Sufficient Appropriations
For the Fiscal Year Ended June 30, 2009
(In Thousands)

Agency	Appr			Chapter 20	Increases	Expenditures	Lapse
Aids and Local Assistance (Continued)							
835	205	2dm	Farmland Preservation Credit	12,200	0	12,173	27
835	209	2ep	Cigarette Tax Refunds	30,700	197	30,896	1
835	211	2co	Enterprise Zone Jobs Credit	0	2	2	0
835	212	2f	Earned Income Tax Credit	93,936	0	91,285	2,651
835	213	2bm	Film Production Services Credit	4,600	867	5,467	0
835	215	2em	Veterans & Surviving Spouse Property Tax Credit	1,600	432	2,032	0
835	217	2br	Interest payments on overassessments of manufacturing property	0	0	0	0
835	302	3b	School Levy Tax Credit	672,400	0	672,400	0
855	402	4b	Election Campaign Payment	204	173	376	1
855	404	4bm	Oil Pipeline Terminal Tax Distribution	775	0	775	0
			Total Aids and Local Assistance	2,371,660	4,170	2,369,269	6,561
Principal Repayment and Lease Rental							
115	205	2d	Principal Repayment and Interest	11	0	11	0
115	702	7b	Principal Repayment and Interest	1,297	0	1,277	20
115	707	7f	Principal Repayment and Interest	866	0	832	34
190	101	1c	Principal Repayment and Interest	981	0	980	1
190	102	1d	Principal Repayment and Interest	1,298	0	1,270	28
225	103	1c	Principal Repayment and Interest	2,305	0	2,283	22
245	106	1e	Principal Repayment and Interest	1,520	0	1,485	35
250	103	1c	Principal Repayment and Interest	1,400	0	1,258	142
250	105	1e	Principal Repayment and Interest	166	0	166	0
255	104	1d	Principal Repayment and Interest	1,088	0	1,078	10
285	110	1d	Principal Repayment and Interest	126,638	0	123,900	2,738
320	103	1c	Principal Repayment and Interest	41,767	44	41,810	1
320	282	2c	Principal Repayment and Interest	2,721	0	2,664	57
370	701	7aa	Principal Repayment and Interest	38,582	0	37,604	978
370	705	7ca	Principal Repayment and Interest	6,399	0	6,277	122
370	706	7cb	Principal Repayment and Interest	44,588	0	44,511	77
370	707	7cc	Principal Repayment and Interest	14,359	0	14,331	28
370	708	7cd	Principal Repayment and Interest	859	0	857	2
370	709	7ea	Principal Repayment and Interest	764	0	758	6
370	713	7ce	Principal Repayment and Interest	137	0	122	15
370	714	7cf	Principal Repayment and Interest	1,522	0	1,483	39
395	664	6af	Principal Repayment and Interest	63,917	0	58,507	5,410
410	107	1e	Principal Repayment and Interest	64,232	0	62,916	1,316
410	307	3e	Principal Repayment and Interest	4,655	0	4,589	66
435	207	2ee	Principal Repayment and Interest	12,907	0	12,596	311
435	602	6e	Principal Repayment and Interest	63	7	70	0
465	104	1d	Principal Repayment and Interest	4,050	0	3,981	69
485	106	1f	Principal Repayment and Interest	1,449	0	1,434	15
505	413	4et	Principal Repayment and Interest	9	0	0	9
505	414	4es	Principal Repayment and Interest	4,316	0	0	4,316
505	503	5c	Principal Repayment and Interest	71	0	60	11
855	801	8a	Principal Repayment and Interest	990	0	989	1
867	102	1b	Principal Repayment and Interest	8,111	0	7,860	251
867	301	3a	Principal Repayment and Interest	(495)	495	(1,850)	1,850
867	302	3b	Principal Repayment and Interest	1,372	0	1,216	156
867	306	3br	Principal Repayment and Interest	84	0	84	0
867	309	3bm	Principal Repayment and Interest	116	0	116	0
867	311	3bq	Principal Repayment and Interest	513	0	448	65
867	313	3bu	Principal Repayment and Interest	7	0	7	0
			Total Principal Repayment and Lease Rental	455,635	546	437,980	18,201
Pay Plan & Supplement							
865	103	1c	Salary	0	1,537	0	1,537
865	104	1d	Fringe	0	0	0	0
			Total Pay Plan & Supplements	0	1,537	0	1,537
TOTAL GENERAL FUND SUM SUFFICIENTS				$ 3,096,616	10,009	3,072,173	34,452
					(1)		

(1) See Note K

Appendix 27: Top Ten State Programs

TOP 10 STATE PROGRAMS

As of June 30, 2009 (Final, Adjusted) Compared to June 30, 2008 (Final, Adjusted)

Table 2
GPR BUDGET BY PURPOSE
GPR Expenditures

Type	Current Period	% Total	Prior Period	% Total	$ Change	% Chg
Local Assistance	$7,223,957,313.44	56.7%	$7,549,828,649.25	55.8%	($ 325,871,335.81)	-4.3%
Aids to Individuals	$2,200,769,335.18	17.3%	$2,797,753,621.22	20.7%	($ 596,984,286.04)	-21.3%
State Operations	$3,319,573,434.13	26.0%	$3,178,736,545.02	23.5%	$ 140,836,889.11	4.4%
Totals	$12,744,300,082.75	100.0%	$13,526,318,815.49	100.0%	($ 782,018,732.74)	-5.8%

Table 3
Top Ten Programs
GPR Expenditures

Program	Current Period	% Total	Prior Period	% Total	Change Amount	% Change
School Aids	$4,916,392,397.47	38.6%	$5,345,687,503.84	39.5%	($ 429,295,106.37)	-8.0%
UW System	$1,136,080,196.83	8.9%	$1,074,561,409.19	7.9%	$ 61,518,787.64	5.7%
Corrections	$1,125,424,948.49	8.8%	$1,075,703,876.73	8.0%	$ 49,721,071.76	4.6%
Medical Assistance	$1,103,784,098.19	8.7%	$1,732,468,716.19	12.8%	($ 628,684,618.00)	-36.3%
Shared Revenues	$946,249,563.91	7.4%	$945,666,511.35	7.0%	$ 583,052.56	0.1%
Property Tax Credits	$672,399,999.57	5.3%	$593,050,000.07	4.4%	$ 79,349,999.50	13.4%
Individual Tax Relief	$261,017,569.08	2.0%	$230,357,788.50	1.7%	$ 30,659,780.58	13.3%
Community Aids	$168,270,791.57	1.3%	$146,431,099.95	1.1%	$ 21,839,691.62	14.9%
State Supp to SSI	$137,315,889.62	1.1%	$133,896,661.78	1.0%	$ 3,419,227.84	2.6%
Higher Ed Financial Ai	$103,713,170.01	0.8%	$93,181,591.94	0.7%	$ 10,531,578.07	11.3%
All Other	$2,173,651,458.01	17.1%	$2,155,313,655.95	15.9%	$ 18,337,802.06	0.9%
Totals	$ 12,744,300,082.75	100.0%	$ 13,526,318,815.49	100.0%	($ 782,018,732.74)	-5.8%

Appropriation	Current Period	Prior Period	Amount Chg	% Chg
School Aids				
255 Public Instruction, Dept. of				
100-255-201-2 (ac)-General equalization aids	$ 4,144,859,991.22	$ 4,623,239,774.52	($ 478,379,783.30)	-10.3%
100-255-202-2 (fy)-Grants to support gifted and talented pupils	$ 241,784.90	$ 266,045.75	($ 24,260.85)	-9.1%
100-255-204-2 (bd)-Additional special education aid	$ 3,500,000.00	$ 3,500,000.00	$ 0.00	0.0%
100-255-205-2 (fw)-Grants for advanced placement courses	$ 99,988.15	$ 99,992.30	($ 4.15)	0.0%
100-255-206-2 (b)-Aids for special education and school age pare	$ 368,939,099.50	$ 350,192,500.00	$ 18,746,599.50	5.4%
100-255-207-2 (cc)-Bilingual-bicultural education aids	$ 9,890,400.00	$ 9,890,400.00	$ 0.00	0.0%

TOP 10 STATE PROGRAMS

As of June 30, 2009 (Final, Adjusted) Compared to June 30, 2008 (Final, Adjusted)

Appropriation	Current Period	Prior Period	Amount Chg	% Chg
100-255-208-2 (cg)-Tuition payments; full-time open enrollment tra	$ 7,971,383.00	$ 8,130,747.00	($ 159,364.00)	-2.0%
100-255-209-2 (cn)-Aids for school lunches and nutritional improve	$ 4,143,910.26	$ 4,252,335.83	($ 108,425.57)	-2.5%
100-255-210-2 (cr)-Aid for pupil transportation	$ 24,737,905.94	$ 25,272,759.13	($ 534,853.19)	-2.1%
100-255-212-2 (fg)-Aid for cooperative educational service agencie	$ 300,000.00	$ 300,000.00	$ 0.00	0.0%
100-255-213-2 (ad)-Supplemental aid	$ 85,750.00	$ 116,800.00	($ 31,050.00)	-26.6%
100-255-214-2 (cp)-Wisconsin school day milk program	$ 710,140.67	$ 710,600.00	($ 459.33)	-0.1%
100-255-215-2 (cm)-Grants for school breakfast programs	$ 2,890,600.00	$ 2,513,500.00	$ 377,100.00	15.0%
100-255-218-2 (fm)-Charter schools	$ 42,682,133.00	$ 43,514,540.50	($ 832,407.50)	-1.9%
100-255-219-2 (do)-Grants for preschool to grade 5 programs	$ 7,309,615.22	$ 7,240,971.35	$ 68,643.87	0.9%
100-255-220-2 (df)-Grants for improving pupil academic achievem	$ 10,000,000.00	$ 0.00	$ 10,000,000.00	n/a
100-255-223-2 (kg)-Mentoring grants for initial educators	$ 1,335,000.00	$ 1,303,125.00	$ 31,875.00	2.4%
100-255-225-2 (bb)-Aid for high-poverty school districts	$ 12,000,000.00	$ 9,000,000.00	$ 3,000,000.00	33.3%
100-255-226-2 (fk)-Grant program for peer review and mentoring	$ 486,771.48	$ 462,141.07	$ 24,630.41	5.3%
100-255-230-2 (bc)-Aid for children-at-risk programs	$ 3,500,000.00	$ 3,500,000.00	$ 0.00	0.0%
100-255-231-2 (bh)-Aid to county children with disabilities educatio	$ 4,214,800.00	$ 4,214,800.00	$ 0.00	0.0%
100-255-235-2 (fu)-Milwaukee parental choice program	$ 128,503,153.22	$ 118,393,237.74	$ 10,109,915.48	8.5%
100-255-251-2 (dl)-Grants for nursing services	$ 160,544.61	$ 250,000.00	($ 89,455.39)	-35.8%
100-255-252-2 (bs)-School district consolidation grants	$ 110,000.00	$ 0.00	$ 110,000.00	n/a
100-255-253-2 (be)-Supplemental special education aid	$ 1,750,000.00	$ 0.00	$ 1,750,000.00	n/a
100-255-254-2 (af)-Belmont school library aid	$ 0.00	$ 18,000.00	($ 18,000.00)	-100.0%
100-255-255-2 (ae)-Sparsity aid	$ 3,644,600.00	$ 0.00	$ 3,644,600.00	n/a
100-255-271-2 (cy)-Aid for transportation; open enrollment	$ 500,000.00	$ 500,000.80	($ 0.80)	0.0%
100-255-273-2 (eh)-Head start supplement	$ 7,205,323.16	$ 7,209,513.65	($ 4,190.49)	-0.1%
100-255-275-2 (cu)-Achievement guarantee contracts	$ 111,984,100.00	$ 111,905,896.00	$ 78,204.00	0.1%
100-255-276-2 (cf)-Alternative education grants	$ 4,923,855.42	$ 4,930,135.71	($ 6,280.29)	-0.1%
100-255-277-2 (cs)-Aid for debt service	$ 139,861.39	$ 139,413.00	$ 448.39	0.3%
100-255-278-2 (dm)-Grants for alcohol & other drug abuse prevent	$ 4,391,890.95	$ 4,438,774.49	($ 46,883.54)	-1.1%
100-255-280-2 (ce)-English for Southeast Asian children	$ 100,000.00	$ 100,000.00	$ 0.00	0.0%
100-255-283-2 (fz)-Grants for science, technology, engineering, an	$ 59,795.38	$ 61,500.00	($ 1,704.62)	-2.8%
100-255-287-2 (cw)-Aid for transportation; youth options program	$ 20,000.00	$ 20,000.00	$ 0.00	0.0%
100-255-288-2 (dp)-Four-year-old kindergarten grants	$ 3,000,000.00	$ 0.00	$ 3,000,000.00	n/a
Public Instruction, Dept. of-Subtotal	$ 4,916,392,397.47	$ 5,345,687,503.84	($ 429,295,106.37)	-8.0%
School Aids Subtotal	$ 4,916,392,397.47	$ 5,345,687,503.84	($ 429,295,106.37)	-8.0%

UW System

285 University of Wisconsin

103-285-101-1 (a)-Doctoral universities	$ 395,330,720.00	$ 372,127,607.00	$ 23,203,113.00	6.2%
103-285-102-1 (a)-Comprehensive universities	$ 278,599,057.00	$ 269,634,425.00	$ 8,964,632.00	3.3%
103-285-103-1 (a)-University centers	$ 28,903,958.00	$ 27,072,500.00	$ 1,831,458.00	6.8%
103-285-104-1 (a)-University extension	$ 74,042,276.00	$ 68,965,969.00	$ 5,076,307.00	7.4%
103-285-105-1 (a)-Facilities maintenance	$ 30,107,951.54	$ 28,505,137.55	$ 1,602,813.99	5.6%
103-285-106-1 (a)-Systemwide accounts	$ 5,692,724.00	$ 5,085,972.74	$ 606,751.26	11.9%
103-285-107-1 (ab)-Student aid	$ 1,347,400.00	$ 1,347,400.00	$ 0.00	0.0%
103-285-108-1 (b)-Area health education centers	$ 1,040,358.92	$ 1,154,499.69	($ 114,140.77)	-9.9%
103-285-109-1 (c)-Utilities, fuel, heating and cooling	$ 114,106,467.56	$ 99,166,391.94	$ 14,940,075.62	15.1%

TOP 10 STATE PROGRAMS

As of June 30, 2009 (Final, Adjusted) Compared to June 30, 2008 (Final, Adjusted)

Appropriation	Current Period	Prior Period	Amount Chg	% Chg
103-285-110-1 (d)-Principal repayment and interest	$ 123,900,127.44	$ 120,959,214.97	$ 2,940,912.47	2.4%
103-285-114-1 (fm)-Laboratories	$ 3,907,000.00	$ 3,907,000.00	$ 0.00	0.0%
103-285-115-1 (cm)-Educational technology	$ 6,743,200.94	$ 6,776,590.74	($ 33,389.80)	-0.5%
103-285-116-1 (fc)-Department of family medicine and practice	$ 10,767,680.66	$ 9,992,640.50	$ 775,040.16	7.8%
103-285-117-1 (fd)-State laboratory of hygiene; general program o	$ 10,151,965.67	$ 9,772,700.47	$ 379,265.20	3.9%
103-285-118-1 (as)-Industrial and economic development research	$ 1,812,599.38	$ 1,805,599.50	$ 6,999.88	0.4%
103-285-119-1 (am)-Distinguished professorships	$ 895,599.57	$ 890,899.80	$ 4,699.77	0.5%
103-285-126-1 (fj)-Veterinary diagnostic laboratory	$ 4,891,480.51	$ 4,753,419.82	$ 138,060.69	2.9%
103-285-158-1 (ep)-Extension local planning program	$ 94,899.37	$ 92,700.00	$ 2,199.37	2.4%
103-285-171-1 (ft)-Wisconsin humanities council	$ 65,340.00	$ 72,600.00	($ 7,260.00)	-10.0%
103-285-173-1 (er)-Grants for study abroad	$ 991,886.00	$ 999,999.01	($ 8,113.01)	-0.8%
103-285-174-1 (fs)-Farm safety program grants	$ 16,900.00	$ 19,400.00	($ 2,500.00)	-12.9%
103-285-175-1 (bm)-Fee remissions	$ 30,000.00	$ 23,253.06	$ 6,746.94	29.0%
103-285-176-1 (eo)-Extension outreach	$ 395,766.04	$ 395,753.23	$ 12.81	0.0%
103-285-177-1 (em)-Schools of business	$ 1,742,000.00	$ 1,758,000.00	($ 16,000.00)	-0.9%
103-285-178-1 (fx)-Alcohol and other drug abuse prevention and in	$ 81,154.06	$ 79,500.95	$ 1,653.11	2.1%
103-285-301-3 (a)-General program operations	$ 9,812,700.35	$ 9,523,400.00	$ 289,300.35	3.0%
103-285-402-4 (a)-Minority and disadvantaged programs	$ 11,837,999.82	$ 11,647,499.97	$ 190,499.85	1.6%
103-285-403-4 (b)-Graduate student financial aid	$ 7,799,500.00	$ 7,453,034.25	$ 346,465.75	4.6%
103-285-406-4 (dd)-Lawton minority undergraduate grants progra	$ 6,239,338.00	$ 5,907,500.00	$ 331,838.00	5.6%
103-285-601-6 (a)-Services received from authority	$ 4,732,146.00	$ 4,670,800.00	$ 61,346.00	1.3%
University of Wisconsin-Subtotal	$ 1,136,080,196.83	$ 1,074,561,409.19	$ 61,518,787.64	5.7%
UW System Subtotal	$ 1,136,080,196.83	$ 1,074,561,409.19	$ 61,518,787.64	5.7%

Corrections

410 Corrections

100-410-101-1 (a)-General program operations	$ 706,996,851.18	$ 674,927,327.34	$ 32,069,523.84	4.8%
100-410-102-1 (b)-Services for community corrections	$ 139,358,308.96	$ 131,830,692.96	$ 7,527,616.00	5.7%
100-410-104-1 (c)-Reimbursement claims of counties containing st	$ 60,500.72	$ 49,778.64	$ 10,722.08	21.5%
100-410-105-1 (bm)-Pharmacological treatment for certain child se	$ 30,170.56	$ 72,226.46	($ 42,055.90)	-58.2%
100-410-106-1 (f)-Utilities, fuel, heating and cooling	$ 28,033,354.52	$ 27,542,357.24	$ 490,997.28	1.8%
100-410-107-1 (e)-Principal repayment and interest	$ 62,915,420.36	$ 63,826,226.33	($ 910,805.97)	-1.4%
100-410-110-1 (aa)-Institutional repair and maintenance	$ 4,201,300.54	$ 4,201,300.61	($ 0.07)	0.0%
100-410-111-1 (d)-Purchased services for offenders	$ 30,995,200.53	$ 28,700,200.90	$ 2,294,999.63	8.0%
100-410-114-1 (ab)-Corrections contracts and agreements	$ 18,932,300.00	$ 14,058,935.40	$ 4,873,364.60	34.7%
100-410-116-1 (bn)-Reimbursing counties for probation, extended	$ 4,934,338.00	$ 5,522,848.00	($ 588,510.00)	-10.7%
100-410-119-1 (cw)-Mother-young child care program	$ 200,000.00	$ 200,000.00	$ 0.00	0.0%
100-410-201-2 (a)-General program operations	$ 924,544.77	$ 924,449.06	$ 95.71	0.0%
100-410-301-3 (a)-General program operations	$ 1,025,100.84	$ 1,042,300.34	($ 17,199.50)	-1.7%
100-410-302-3 (f)-Community intervention program	$ 3,739,295.75	$ 3,748,217.18	($ 8,921.43)	-0.2%
100-410-304-3 (cg)-Serious juvenile offenders	$ 18,731,832.20	$ 16,844,300.00	$ 1,887,532.20	11.2%
100-410-305-3 (ba)-Mendota juvenile treatment center	$ 1,379,300.00	$ 1,379,300.00	$ 0.00	0.0%
100-410-307-3 (e)-Principal repayment and interest	$ 4,589,215.58	$ 4,456,173.71	$ 133,041.87	3.0%
100-410-308-3 (c)-Reimbursement claims of counties containing ju	$ 36,913.72	$ 36,241.66	$ 672.06	1.9%
100-410-313-3 (cd)-Community youth and family aids	$ 98,341,000.26	$ 96,341,000.90	$ 1,999,999.36	2.1%

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Appropriation	Current Period	Prior Period	Amount Chg	% Chg
Corrections-Subtotal	$ 1,125,424,948.49	$ 1,075,703,876.73	$ 49,721,071.76	4.6%
Corrections Subtotal	$ 1,125,424,948.49	$ 1,075,703,876.73	$ 49,721,071.76	4.6%

Medical Assistance

435 Health Services, Dept.

100-435-404-4 (b)-Medical assistance program benefits	$ 753,683,454.54	$ 1,363,966,021.76	($ 610,282,567.22)	-44.7%
100-435-406-4 (b)-Medical assistance program benefits; family car	$ 161,487,941.00	$ 124,472,358.70	$ 37,015,582.30	29.7%
100-435-407-4 (d)-Facility appeals mechanism	$ 0.00	$ 546,799.47	($ 546,799.47)	-100.0%
100-435-471-4 (b)-Medical assistance waiver benefits	$ 115,271,858.35	$ 133,706,998.00	($ 18,435,139.65)	-13.8%
100-435-472-4 (b)-Health care for low-income families	$ 27,842,981.30	$ 75,352,316.44	($ 47,509,335.14)	-63.0%
100-435-475-4 (b)-SED hospital diversion	$ 1,259,063.00	$ 1,269,322.00	($ 10,259.00)	-0.8%
100-435-708-7 (bd)-Community options program; family care -- CM	$ 20,965,700.00	$ 11,293,900.00	$ 9,671,800.00	85.6%
100-435-712-7 (b)-Medical assistance payments to counties	$ 23,273,100.00	$ 21,860,999.82	$ 1,412,100.18	6.5%
Health Services, Dept.-Subtotal	$ 1,103,784,098.19	$ 1,732,468,716.19	($ 628,684,618.00)	-36.3%
Medical Assistance Subtotal	$ 1,103,784,098.19	$ 1,732,468,716.19	($ 628,684,618.00)	-36.3%

Shared Revenues

835 Shared Revenue & Tax Relief

100-835-101-1 (c)-Expenditure restraint program account	$ 58,145,700.00	$ 58,145,700.00	$ 0.00	0.0%
100-835-102-1 (d)-Shared revenue account	$ 33,400,000.00	$ 32,900,000.00	$ 500,000.00	1.5%
100-835-105-1 (db)-County and municipal aid account	$ 854,703,863.91	$ 854,620,811.35	$ 83,052.56	0.0%
Shared Revenue & Tax Relief-Subtotal	$ 946,249,563.91	$ 945,666,511.35	$ 583,052.56	0.1%
Shared Revenues Subtotal	$ 946,249,563.91	$ 945,666,511.35	$ 583,052.56	0.1%

Property Tax Credits

835 Shared Revenue & Tax Relief

100-835-302-3 (b)-School levy tax credit and first dollar credit	$ 672,399,999.57	$ 593,050,000.07	$ 79,349,999.50	13.4%
Shared Revenue & Tax Relief-Subtotal	$ 672,399,999.57	$ 593,050,000.07	$ 79,349,999.50	13.4%
Property Tax Credits Subtotal	$ 672,399,999.57	$ 593,050,000.07	$ 79,349,999.50	13.4%

Individual Tax Relief

835 Shared Revenue & Tax Relief

100-835-203-2 (c)-Homestead tax credit	$ 124,632,154.00	$ 125,103,999.41	($ 471,845.41)	-0.4%
100-835-205-2 (dm)-Farmland preservation credit	$ 12,172,631.95	$ 11,984,122.50	$ 188,509.45	1.6%
100-835-209-2 (ep)-Cigarette tax refunds	$ 30,895,870.58	$ 20,277,251.78	$ 10,618,618.80	52.4%
100-835-212-2 (f)-Earned income tax credit	$ 91,285,028.67	$ 71,446,441.78	$ 19,838,586.89	27.8%
100-835-215-2 (em)-Veterans and surviving spouses property tax	$ 2,031,883.88	$ 1,545,973.03	$ 485,910.85	31.4%
Shared Revenue & Tax Relief-Subtotal	$ 261,017,569.08	$ 230,357,788.50	$ 30,659,780.58	13.3%
Individual Tax Relief Subtotal	$ 261,017,569.08	$ 230,357,788.50	$ 30,659,780.58	13.3%

Community Aids

435 Health Services, Dept.

100-435-705-7 (b)-Community aids	$ 116,708,100.00	$ 137,600,799.95	($ 20,892,699.95)	-15.2%

TOP 10 STATE PROGRAMS

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	Appropriation	Current Period	Prior Period	Amount Chg	% Chg
	100-435-717-7 (b)-Community aids; family care -- resource centers	$ 22,607,000.00	$ 8,830,300.00	$ 13,776,700.00	156.0%
	Health Services, Dept.-Subtotal	$ 139,315,100.00	$ 146,431,099.95	($ 7,115,999.95)	-4.9%
437	**Children and Families, Dept of**				
	100-437-105-1 (b)-Community aids	$ 28,955,691.57	$ 0.00	$ 28,955,691.57	n/a
	Children and Families, Dept of-Subtotal	$ 28,955,691.57	$ 0.00	$ 28,955,691.57	n/a
	Community Aids Subtotal	$ 168,270,791.57	$ 146,431,099.95	$ 21,839,691.62	14.9%

State Supp to SSI

435	**Health Services, Dept.**				
	100-435-715-7 (ed)-State supplement to federal supplemental sec	$ 137,315,889.62	$ 133,896,661.78	$ 3,419,227.84	2.6%
	Health Services, Dept.-Subtotal	$ 137,315,889.62	$ 133,896,661.78	$ 3,419,227.84	2.6%
	State Supp to SSI Subtotal	$ 137,315,889.62	$ 133,896,661.78	$ 3,419,227.84	2.6%

Higher Ed Financial Aid

235	**Higher Educ. Aids Board**				
	100-235-102-1 (ff)-Wisconsin higher education grants; technical co	$ 17,770,343.00	$ 16,905,950.00	$ 864,393.00	5.1%
	100-235-103-1 (d)-Dental education contract	$ 1,400,400.00	$ 1,400,400.00	$ 0.00	0.0%
	100-235-104-1 (e)-Minnesota-Wisconsin student reciprocity agree	$ 12,560,785.25	$ 10,017,151.21	$ 2,543,634.04	25.4%
	100-235-105-1 (fz)-Remission of fees for veterans and dependents	$ 6,562,300.00	$ 5,013,700.00	$ 1,548,600.00	30.9%
	100-235-106-1 (fe)-Wisconsin higher education grants; University	$ 54,986,218.00	$ 49,830,841.00	$ 5,155,377.00	10.3%
	100-235-107-1 (fg)-Minority undergraduate retention grants progra	$ 817,658.00	$ 751,896.00	$ 65,762.00	8.7%
	100-235-109-1 (fy)-Academic excellence higher education scholar	$ 3,123,316.00	$ 3,169,524.00	($ 46,208.00)	-1.5%
	100-235-110-1 (cr)-Minority teacher loans	$ 149,354.00	$ 180,847.00	($ 31,493.00)	-17.4%
	100-235-112-1 (fj)-Handicapped student grants	$ 98,197.00	$ 90,364.00	$ 7,833.00	8.7%
	100-235-114-1 (fd)-Talent incentive grants	$ 4,575,552.00	$ 4,228,844.00	$ 346,708.00	8.2%
	100-235-115-1 (cu)-Teacher education loan program	$ 263,875.00	$ 249,250.00	$ 14,625.00	5.9%
	100-235-116-1 (cx)-Loan pgm for teachers & orient & mobility instr	$ 93,900.00	$ 100,000.00	($ 6,100.00)	-6.1%
	100-235-117-1 (cm)-Nursing student loan program	$ 442,375.00	$ 371,845.00	$ 70,530.00	19.0%
	100-235-201-2 (aa)-General program operations	$ 868,896.76	$ 870,979.73	($ 2,082.97)	-0.2%
	Higher Educ. Aids Board-Subtotal	$ 103,713,170.01	$ 93,181,591.94	$ 10,531,578.07	11.3%
	Higher Ed Financial Aid Subtotal	$ 103,713,170.01	$ 93,181,591.94	$ 10,531,578.07	11.3%

All Other

115	**Agriculture, Department of**				
	100-115-101-1 (a)-General program operations	$ 3,659,766.33	$ 3,640,284.30	$ 19,482.03	0.5%
	100-115-102-1 (a)-Meat and poultry inspection	$ 3,621,233.67	$ 3,481,915.70	$ 139,317.97	4.0%
	100-115-105-1 (a)-Trade and consumer protection	$ 2,686,700.00	$ 2,691,700.00	($ 5,000.00)	-0.2%
	100-115-201-2 (a)-General program operations	$ 2,678,100.00	$ 2,623,600.00	$ 54,500.00	2.1%
	100-115-202-2 (b)-Animal disease indemnities	$ 1,400.00	$ 0.00	$ 1,400.00	n/a
	100-115-203-2 (c)-Financial assistance for paratuberculosis testing	$ 197,520.70	$ 250,000.00	($ 52,479.30)	-21.0%
	100-115-205-2 (d)-Principal repayment and interest	$ 11,548.92	$ 11,780.46	($ 231.54)	-2.0%
	100-115-301-3 (a)-General program operations	$ 2,383,500.85	$ 2,252,600.50	$ 130,900.35	5.8%
	100-115-402-4 (b)-Aids to county and district fairs	$ 360,000.00	$ 400,000.00	($ 40,000.00)	-10.0%
	100-115-404-4 (c)-Agricultural investment aids	$ 360,831.23	$ 378,407.34	($ 17,576.11)	-4.6%

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	Appropriation	Current Period	Prior Period	Amount Chg	% Chg
	100-115-405-4 (e)-Aids to world dairy expo, inc.	$ 23,700.00	$ 23,700.00	$ 0.00	0.0%
	100-115-406-4 (f)-Exposition center grants	$ 216,300.00	$ 216,300.00	$ 0.00	0.0%
	100-115-417-4 (am)-Buy Local grants	$ 225,000.00	$ 0.00	$ 225,000.00	n/a
	100-115-701-7 (a)-General program operations	$ 798,300.00	$ 798,300.00	$ 0.00	0.0%
	100-115-702-7 (b)-Principal repayment and interest, conservation r	$ 1,277,050.59	$ 1,191,840.74	$ 85,209.85	7.1%
	100-115-703-7 (c)-Soil and water resource management program	$ 5,083,103.75	$ 5,090,732.55	($ 7,628.80)	-0.1%
	100-115-704-7 (d)-Drainage board grants	($ 20,195.00)	($ 21,729.56)	$ 1,534.56	-7.1%
	100-115-707-7 (f)-Principal repayment and interest, soil and water	$ 831,939.09	$ 560,012.21	$ 271,926.88	48.6%
	100-115-801-8 (a)-General program operations; office of secretary	$ 5,378,300.00	$ 5,284,900.00	$ 93,400.00	1.8%
	100-115-802-8 (a)-General program operations; office of agricultur	$ 288,500.00	$ 289,200.00	($ 700.00)	-0.2%
	Agriculture, Department of-Subtotal	$ 30,062,600.13	$ 29,163,544.24	$ 899,055.89	3.1%
143	**Commerce, Department of**				
	100-143-101-1 (a)-General program operations	$ 3,899,165.11	$ 4,065,311.17	($ 166,146.06)	-4.1%
	100-143-102-1 (b)-Economic development promotion, plans and st	$ 19,429.74	$ 29,281.41	($ 9,851.67)	-33.6%
	100-143-103-1 (c)-Wisconsin development fund; grants, loans, rei	$ 11,247,814.45	$ 5,818,927.83	$ 5,428,886.62	93.3%
	100-143-104-1 (d)-High-technology business development corpora	$ 250,000.00	$ 250,000.00	$ 0.00	0.0%
	100-143-106-1 (bm)-Aid to Forward Wisconsin, inc.	$ 334,262.51	$ 320,000.00	$ 14,262.51	4.5%
	100-143-107-1 (fj)-Manufacturing extension center grants	$ 1,200,000.00	$ 1,200,000.00	$ 0.00	0.0%
	100-143-108-1 (fm)-Minority business projects; grants and loans	$ 477,318.96	$ 0.00	$ 477,318.96	n/a
	100-143-109-1 (fg)-Community-based economic development prog	$ 621,680.99	$ 712,100.00	($ 90,419.01)	-12.7%
	100-143-110-1 (dr)-Main street program	$ 409,365.21	$ 381,619.69	$ 27,745.52	7.3%
	100-143-111- (dk)-Tech Commercial Grant and Loan	($ 6,218.44)	$ 0.00	($ 6,218.44)	n/a
	100-143-114-1 (er)-Rural economic development program	$ 686,021.04	$ 375,032.93	$ 310,988.11	82.9%
	100-143-201-2 (a)-General program operations	$ 611,098.52	$ 557,500.41	$ 53,598.11	9.6%
	100-143-202-2 (b)-Housing grants and loans; general purpose rev	$ 2,796,851.82	($ 13,214.65)	$ 2,810,066.47	21264.8%
	100-143-205-2 (fr)-Mental health for homeless individuals	$ 45,000.00	$ 45,000.00	$ 0.00	0.0%
	100-143-206-2 (fm)-Shelter for homeless and transitional housing	$ 1,503,152.17	$ 1,503,593.42	($ 441.25)	0.0%
	100-143-302-3 (de)-Private sewage system replacement and reha	$ 2,965,241.00	$ 3,003,116.00	($ 37,875.00)	-1.3%
	100-143-401-4 (a)-General program operations	$ 1,482,483.05	$ 1,434,899.32	$ 47,583.73	3.3%
	Commerce, Department of-Subtotal	$ 28,542,666.13	$ 19,683,167.53	$ 8,859,498.60	45.0%
190	**State Fair Park**				
	100-190-101-1 (c)-Housing facilities principal repayment, interest a	$ 979,671.29	$ 982,395.21	($ 2,723.92)	-0.3%
	100-190-102-1 (d)-Principal repayment and interest	$ 1,270,015.85	$ 1,307,178.91	($ 37,163.06)	-2.8%
	State Fair Park-Subtotal	$ 2,249,687.14	$ 2,289,574.12	($ 39,886.98)	-1.7%
215	**Arts Board**				
	100-215-101-1 (a)-General program operations	$ 366,644.42	$ 367,250.97	($ 606.55)	-0.2%
	100-215-102-1 (b)-State aid for the arts	$ 1,885,500.00	$ 1,885,461.00	$ 39.00	0.0%
	100-215-107-1 (d)-Challenge grant program	$ 21,699.00	$ 90,000.00	($ 68,301.00)	-75.9%
	100-215-109-1 (f)-Wisconsin regranting program	$ 124,300.00	$ 124,300.00	$ 0.00	0.0%
	100-215-111-1 (fm)-One-time grants	$ 0.00	$ 40,000.00	($ 40,000.00)	-100.0%
	Arts Board-Subtotal	$ 2,398,143.42	$ 2,507,011.97	($ 108,868.55)	-4.3%
225	**Educational Communications Bd.**				
	100-225-101-1 (a)-General program operations	$ 3,266,551.20	$ 3,025,517.24	$ 241,033.96	8.0%
	100-225-102-1 (b)-Energy costs	$ 753,800.00	$ 753,400.00	$ 400.00	0.1%

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	Appropriation	Current Period	Prior Period	Amount Chg	% Chg
	100-225-103-1 (c)-Principal repayment and interest	$ 2,282,943.66	$ 2,189,350.38	$ 93,593.28	4.3%
	100-225-104-1 (d)-Milwaukee area technical college	$ 250,800.00	$ 250,800.00	$ 0.00	0.0%
	100-225-106-1 (f)-Programming	$ 1,192,238.86	$ 1,249,315.16	($ 57,076.30)	-4.6%
	100-225-108-1 (er)-Transmitter operation	$ 14,933.20	$ 14,641.24	$ 291.96	2.0%
	Educational Communications Bd.-Subtotal	$ 7,761,266.92	$ 7,483,024.02	$ 278,242.90	3.7%
235	**Higher Educ. Aids Board**				
	100-235-101-1 (b)-Tuition grants	$ 26,567,410.00	$ 24,928,869.00	$ 1,638,541.00	6.6%
	Higher Educ. Aids Board-Subtotal	$ 26,567,410.00	$ 24,928,869.00	$ 1,638,541.00	6.6%
245	**Historical Society**				
	100-245-101-1 (a)-General program operations	$ 10,234,213.57	$ 10,336,878.00	($ 102,664.43)	-1.0%
	100-245-103-1 (b)-Wisconsin black historical society and museum	$ 90,000.00	$ 90,000.00	$ 0.00	0.0%
	100-245-105-1 (c)-Energy costs	$ 857,544.99	$ 815,254.22	$ 42,290.77	5.2%
	100-245-106-1 (e)-Principal repayment, interest, and rebates	$ 1,485,651.52	$ 1,508,802.51	($ 23,150.99)	-1.5%
	Historical Society-Subtotal	$ 12,667,410.08	$ 12,750,934.73	($ 83,524.65)	-0.7%
250	**Medical College of Wisconsin**				
	100-250-101-1 (a)-General program operations	$ 2,052,500.00	$ 2,052,500.00	$ 0.00	0.0%
	100-250-102-1 (b)-Family medicine and practice	$ 3,371,900.00	$ 3,371,900.00	$ 0.00	0.0%
	100-250-103-1 (c)-Principal repay, int & rebates; biomedical resear	$ 1,257,594.35	$ 998,410.40	$ 259,183.95	26.0%
	100-250-105-1 (e)-Principal repayment and interest	$ 166,407.39	$ 168,767.06	($ 2,359.67)	-1.4%
	Medical College of Wisconsin-Subtotal	$ 6,848,401.74	$ 6,591,577.46	$ 256,824.28	3.9%
255	**Public Instruction, Dept. of**				
	100-255-101-1 (a)-General program operations	$ 11,194,325.64	$ 11,138,555.61	$ 55,770.03	0.5%
	100-255-102-1 (b)-General program operations; program for the d	$ 12,476,921.31	$ 11,888,839.57	$ 588,081.74	4.9%
	100-255-103-1 (c)-Energy costs: program for the deaf and center f	$ 601,106.82	$ 588,100.00	$ 13,006.82	2.2%
	100-255-104-1 (d)-Principal repayment and interest	$ 1,077,650.27	$ 1,117,125.52	($ 39,475.25)	-3.5%
	100-255-105-1 (dw)-Pupil assessment	$ 3,110,700.00	$ 3,110,700.00	$ 0.00	0.0%
	100-255-221-2 (ep)-Second chance partnership	$ 198,230.00	$ 189,010.00	$ 9,220.00	4.9%
	100-255-301-3 (b)-Adult literacy grants	$ 50,000.86	$ 49,032.42	$ 968.44	2.0%
	100-255-302-3 (a)-One-time grants to organizations	$ 12,500.00	$ 50,000.00	($ 37,500.00)	-75.0%
	100-255-305-3 (d)-Elks and Easter Seals center for respite and rec	$ 87,500.00	$ 87,500.00	$ 0.00	0.0%
	100-255-306-3 (c)-Grants for national teacher certification or mast	$ 1,471,761.69	$ 1,227,126.18	$ 244,635.51	19.9%
	100-255-307-3 (e)-Aid to public library systems	$ 0.00	$ 2,097,400.00	($ 2,097,400.00)	-100.0%
	100-255-308-3 (fg)-Special olympics	$ 75,000.00	$ 75,000.00	$ 0.00	0.0%
	100-255-309-3 (fa)-Very special arts	$ 75,000.00	$ 75,000.00	$ 0.00	0.0%
	100-255-310-3 (fz)-Precollege scholarships	$ 2,162,337.50	$ 2,152,254.28	$ 10,083.22	0.5%
	100-255-315-3 (dn)-Grant to project lead the way	$ 250,000.00	$ 250,000.00	$ 0.00	0.0%
	100-255-317-3 (eg)-Milwaukee public museum	$ 50,000.00	$ 50,000.00	$ 0.00	0.0%
	100-255-320-3 (ea)-Library service contracts	$ 1,097,200.00	$ 1,132,986.11	($ 35,786.11)	-3.2%
	Public Instruction, Dept. of-Subtotal	$ 33,990,234.09	$ 35,278,629.69	($ 1,288,395.60)	-3.7%
292	**Technical College System Board**				
	100-292-101-1 (a)-General program operations	$ 3,621,364.28	$ 3,586,900.00	$ 34,464.28	1.0%
	100-292-102-1 (b)-Displaced homemakers' program	$ 244,800.00	$ 265,520.00	($ 20,720.00)	-7.8%
	100-292-104-1 (e)-Vocational education instructor occupational co	($ 11,114.47)	$ 63,370.00	($ 74,484.47)	-117.5%

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	Appropriation	Current Period	Prior Period	Amount Chg	% Chg
	100-292-105-1 (d)-State aid for vocational, technical and adult edu	$ 118,415,000.00	$ 118,415,000.00	$ 0.00	0.0%
	100-292-106-1 (b)-Displaced homemakers' program	$ 472,849.30	$ 547,514.84	($ 74,665.54)	-13.6%
	100-292-107-1 (fm)-Supplemental aid	$ 1,289,250.00	$ 1,432,500.00	($ 143,250.00)	-10.0%
	100-292-109-1 (c)-Minority student participation and retention gran	$ 527,782.00	$ 589,200.00	($ 61,418.00)	-10.4%
	100-292-111-1 (dd)-Farm training program tuition grants	$ 129,756.00	$ 136,693.00	($ 6,937.00)	-5.1%
	100-292-112-1 (dc)-Incentive grants	$ 5,942,192.62	$ 6,337,951.31	($ 395,758.69)	-6.2%
	100-292-113-1 (dm)-Aid for special collegiate transfer programs	$ 1,073,700.00	$ 1,073,700.00	$ 0.00	0.0%
	100-292-114-1 (am)-Fee remissions	$ 9,332.75	$ 14,300.00	($ 4,967.25)	-34.7%
	100-292-115-1 (de)-Services for handicapped students; local assis	$ 379,385.65	$ 382,000.00	($ 2,614.35)	-0.7%
	100-292-116-1 (eh)-Jobs advantage training program grants	$ 2,760,952.54	$ 1,482,800.76	$ 1,278,151.78	86.2%
	100-292-119-1 (em)-Apprenticeship curriculum development	$ 71,600.00	$ 71,600.00	$ 0.00	0.0%
	100-292-122-1 (ef)-School-to-work programs for children at risk	$ 256,500.00	$ 285,000.00	($ 28,500.00)	-10.0%
	100-292-123-1 (eg)-Faculty development grants	$ 713,101.00	$ 794,600.00	($ 81,499.00)	-10.3%
	100-292-160-1 (q)-Agricultural education consultant	$ 69,509.45	$ 75,493.86	($ 5,984.41)	-7.9%
	100-292-161-1 (ch)-Health care education programs	$ 4,840,861.00	$ 5,450,000.00	($ 609,139.00)	-11.2%
	100-292-172-1 (fc)-Driver education, local assistance	$ 276,750.00	$ 307,500.00	($ 30,750.00)	-10.0%
	100-292-173-1 (fg)-Chauffeur training grants	$ 171,900.00	$ 191,000.00	($ 19,100.00)	-10.0%
	Technical College System Board-Subtotal	$ 141,255,472.12	$ 141,502,643.77	($ 247,171.65)	-0.2%
320	**Environmental Improvement Program (DOA)**				
	100-320-103-1 (c)-Principal repayment and interest -- clean water f	$ 41,810,071.08	$ 39,780,159.03	$ 2,029,912.05	5.1%
	100-320-282-2 (c)-Principal repayment and interest -- safe drinking	$ 2,664,555.35	$ 2,539,432.42	$ 125,122.93	4.9%
	Environmental Improvement Program (DOA)-Subtotal	$ 44,474,626.43	$ 42,319,591.45	$ 2,155,034.98	5.1%
370	**Natural Resources, Dept. of**				
	100-370-101-1 (ma)-General program operations--state funds	$ 5,900.00	$ 4,800.00	$ 1,100.00	22.9%
	100-370-103-1 (ea)-Parks - general program operations	$ 5,247,000.00	$ 5,268,500.00	($ 21,500.00)	-0.4%
	100-370-109-1 (fd)-Endangered resources--natural heritage invent	$ 251,100.00	$ 242,138.45	$ 8,961.55	3.7%
	100-370-116-1 (fe)-Endangered resources -- general fund	$ 453,100.00	$ 489,400.00	($ 36,300.00)	-7.4%
	100-370-201-2 (ma)-General program operations--state funds	$ 1,676,412.04	$ 1,513,451.06	$ 162,960.98	10.8%
	100-370-205-2 (cf)-Air management - motor veh. emission inspect.	$ 0.00	$ 33,009.10	($ 33,009.10)	-100.0%
	100-370-301-3 (ma)-General program operations--state funds	$ 2,744,674.00	$ 3,037,514.66	($ 292,840.66)	-9.6%
	100-370-302-3 (ad)-Law enforcement - car killed deer; general fun	$ 398,564.58	$ 384,747.19	$ 13,817.39	3.6%
	100-370-401-4 (ma)-General program operations - state funds	$ 14,914,918.92	$ 14,986,584.88	($ 71,665.96)	-0.5%
	100-370-414-4 (af)-Water resources - remedial action	$ 19,214.18	$ 277,245.56	($ 258,031.38)	-93.1%
	100-370-427- (kb)-Environmental Aids-Menomonee River	$ 0.00	($ 35,364.77)	$ 35,364.77	-100.0%
	100-370-501-5 (ad)-Resource aids -- interpretive center	$ 27,000.00	$ 27,000.00	$ 0.00	0.0%
	100-370-503-5 (da)-Aids in lieu of taxes -- general fund	$ 6,352,029.45	$ 5,381,437.29	$ 970,592.16	18.0%
	100-370-602-6 (aa)-Environmental aids - nonpoint source	$ 1,179,231.06	$ 38,128.16	$ 1,141,102.90	2992.8%
	100-370-604-6 (da)-Environmental planning aids - local water quali	$ 269,200.00	$ 269,200.00	$ 0.00	0.0%
	100-370-701-7 (aa)-Resource acquisition and development - princi	$ 37,603,704.04	$ 34,104,930.48	$ 3,498,773.56	10.3%
	100-370-705-7 (ca)-Principal repayment and interest - nonpoint so	$ 6,276,890.39	$ 5,987,240.35	$ 289,650.04	4.8%
	100-370-706-7 (cb)-Principal repayment and interest - pollution ab	$ 44,511,014.72	$ 46,066,368.07	($ 1,555,353.35)	-3.4%
	100-370-707-7 (cc)-Principal repay. and int. - combined sewer ove	$ 14,330,743.80	$ 15,206,548.67	($ 875,804.87)	-5.8%
	100-370-708-7 (cd)-Principal repayment and interest - municipal cl	$ 856,753.49	$ 854,019.57	$ 2,733.92	0.3%
	100-370-709-7 (ea)-Administrative facilities - principal repayment a	$ 758,163.01	$ 754,265.91	$ 3,897.10	0.5%
	100-370-711-7 (fa)-Resource maintenance and development - stat	$ 828,500.71	$ 514,325.63	$ 314,175.08	61.1%

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	Appropriation	Current Period	Prior Period	Amount Chg	% Chg
	100-370-712-7 (ha)-Facilities acquisition, development and mainte	$ 233,822.79	$ 182,050.91	$ 51,771.88	28.4%
	100-370-713-7 (ce)-Principal repayment and interest - nonpoint so	$ 121,711.74	$ 121,151.36	$ 560.38	0.5%
	100-370-714-7 (cf)-Principal repayment and interest - urban nonpo	$ 1,483,491.27	$ 1,220,477.84	$ 263,013.43	21.6%
	100-370-785-7 (mc)-Resource maintenance and development -- st	$ 181,085.06	$ 441,364.19	($ 260,279.13)	-59.0%
	100-370-801-8 (ma)-General program operations--state funds	$ 2,257,199.95	$ 2,294,937.00	($ 37,737.05)	-1.6%
	100-370-901-9 (ma)-General program operations - state funds	$ 1,182,957.47	$ 1,130,941.00	$ 52,016.47	4.6%
	Natural Resources, Dept. of-Subtotal	$ 144,164,382.67	$ 140,796,412.56	$ 3,367,970.11	2.4%
380	**Tourism**				
	100-380-101-1 (a)-General program operations	$ 3,372,872.17	$ 3,354,934.31	$ 17,937.86	0.5%
	Tourism-Subtotal	$ 3,372,872.17	$ 3,354,934.31	$ 17,937.86	0.5%
395	**Transportation, Department of**				
	100-395-664-6 (af)-Prin. rpmt. & int., local rds. job psrv. & maj. hwy	$ 58,507,112.33	$ 56,396,330.94	$ 2,110,781.39	3.7%
	Transportation, Department of-Subtotal	$ 58,507,112.33	$ 56,396,330.94	$ 2,110,781.39	3.7%
425	**Employment Relations Commission**				
	100-425-101-1 (a)-General program operations	$ 2,536,849.50	$ 2,522,795.09	$ 14,054.41	0.6%
	Employment Relations Commission-Subtotal	$ 2,536,849.50	$ 2,522,795.09	$ 14,054.41	0.6%
432	**Board on Aging**				
	100-432-101-1 (a)-General program operations	$ 1,052,607.16	$ 894,291.42	$ 158,315.74	17.7%
	Board on Aging-Subtotal	$ 1,052,607.16	$ 894,291.42	$ 158,315.74	17.7%
433	**Child Abuse & Neglect Prev. Bd.**				
	100-433-101-1 (b)-Grants to organizations	$ 1,089,600.00	$ 950,300.00	$ 139,300.00	14.7%
	Child Abuse & Neglect Prev. Bd.-Subtotal	$ 1,089,600.00	$ 950,300.00	$ 139,300.00	14.7%
435	**Health Services, Dept.**				
	100-435-101-1 (a)-General program operations	$ 5,269,900.41	$ 5,709,557.46	($ 439,657.05)	-7.7%
	100-435-201-2 (a)-General program operations	$ 78,226,581.30	$ 63,881,426.55	$ 14,345,154.75	22.5%
	100-435-202-2 (bm)-Secure mental health units or facilities	$ 34,076,118.37	$ 32,652,212.08	$ 1,423,906.29	4.4%
	100-435-203-2 (bm)-Secure mental health units or facilities	$ 48,093,981.74	$ 44,383,738.43	$ 3,710,243.31	8.4%
	100-435-204-2 (bj)-Competency examinations and conditional and	$ 6,396,721.97	$ 8,316,223.26	($ 1,919,501.29)	-23.1%
	100-435-206-2 (f)-Energy costs	$ 4,077,686.96	$ 3,861,315.75	$ 216,371.21	5.6%
	100-435-207-2 (ee)-Principal repayment and interest	$ 12,596,492.97	$ 12,441,276.21	$ 155,216.76	1.2%
	100-435-210-2 (aa)-Institutional repair and maintenance	$ 658,396.05	$ 659,285.64	($ 889.59)	-0.1%
	100-435-301-3 (a)-General program operations	($ 464,561.41)	$ 5,304,079.55	($ 5,768,640.96)	-108.8%
	100-435-302-3 (dd)-State foster care and adoption services	$ 0.00	$ 45,769,475.37	($ 45,769,475.37)	-100.0%
	100-435-308-3 (eg)-Brighter futures grants - GPR	($ 318,083.00)	$ 1,749,500.00	($ 2,067,583.00)	-118.2%
	100-435-309-3 (dg)-State adoption information exchange and state	($ 1,174.35)	$ 171,300.03	($ 172,474.38)	-100.7%
	100-435-310-3 (cf)-Foster, trtmt foster & family-operated group ho	($ 10,553.67)	$ 52,070.10	($ 62,623.77)	-120.3%
	100-435-311-3 (da)-Child welfare program enhancement activities	($ 494,430.22)	$ 1,117,199.60	($ 1,611,629.82)	-144.3%
	100-435-312-3 (dd)-Adoption service contracts	$ 0.00	$ 225,590.64	($ 225,590.64)	-100.0%
	100-435-314-3 (cw)-Milwaukee child welfare services; general pro	($ 492,564.36)	$ 11,918,596.93	($ 12,411,161.29)	-104.1%
	100-435-315-3 (cx)-Milwaukee child welfare services; aids	($ 241,370.75)	$ 1,588,999.20	($ 1,830,369.95)	-115.2%
	100-435-316-3 (cd)-Domestic abuse grants	($ 403,917.71)	$ 7,256,380.00	($ 7,660,297.71)	-105.6%
	100-435-318-3 (cx)-Out of home placement costs	($ 174,994.36)	$ 37,333,718.67	($ 37,508,713.03)	-100.5%
	100-435-324-3 (eg)-Tribal adolescent services	($ 5,941.50)	$ 210,000.00	($ 215,941.50)	-102.8%

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100-435-386-3 (bc)-Grants for children's community programs	($ 317,700.55)	$ 729,886.00	($ 1,047,586.55)	-143.5%
100-435-401-4 (a)-General program operations	$ 10,100,599.96	$ 10,398,636.85	($ 298,036.89)	-2.9%
100-435-405-4 (e)-Disease aids	$ 4,834,668.11	$ 4,286,930.40	$ 547,737.71	12.8%
100-435-409-4 (bt)-Relief block grants to counties	$ 254,162.00	$ 336,629.00	($ 82,467.00)	-24.5%
100-435-412-4 (bm)-MA, food stamps & BadgerCare admin; contr	$ 35,577,034.38	$ 36,481,148.98	($ 904,114.60)	-2.5%
100-435-414-4 (bn)-Income maintenance; payments to counties	$ 38,737,551.60	$ 29,729,235.83	$ 9,008,315.77	30.3%
100-435-415-4 (bv)-Prescription drug assistance for elderly; aids	$ 33,983,220.91	$ 38,797,305.94	($ 4,814,085.03)	-12.4%
100-435-503-5 (cc)-Cancer control and prevention	$ 315,970.00	$ 394,600.00	($ 78,630.00)	-19.9%
100-435-504-5 (ab)-Targeted home visiting grants	($ 54,224.04)	$ 983,862.00	($ 1,038,086.04)	-105.5%
100-435-505-5 (e)-Public health dispensaries and drugs	$ 519,111.45	$ 356,688.55	$ 162,422.90	45.5%
100-435-506-5 (dn)-Food distribution costs	$ 0.00	$ 311,481.02	($ 311,481.02)	-100.0%
100-435-509-5 (am)-Services,reimbursement and payment related	$ 4,379,478.84	$ 3,979,251.00	$ 400,227.84	10.1%
100-435-511-5 (eg)-Pregnancy counseling	$ 77,156.00	$ 77,597.43	($ 441.43)	-0.6%
100-435-512-5 (ds)-Statewide poison control program	$ 225,000.00	$ 425,000.00	($ 200,000.00)	-47.1%
100-435-513-5 (fh)-Community health services	$ 6,100,000.00	$ 3,100,000.00	$ 3,000,000.00	96.8%
100-435-514-5 (am)-AZT, pentamidine and other drug reimbursem	$ 464,000.00	$ 464,000.00	$ 0.00	0.0%
100-435-515-5 (am)-Continuation coverage and medical leave pre	$ 640,600.00	$ 640,600.00	$ 0.00	0.0%
100-435-517-5 (de)-Dental services	$ 3,132,827.00	$ 3,042,519.00	$ 90,308.00	3.0%
100-435-520-5 (f)-Family planning	$ 1,928,413.00	$ 1,950,087.00	($ 21,674.00)	-1.1%
100-435-521-5 (ed)-Radon aids	$ 27,000.00	$ 29,939.00	($ 2,939.00)	-9.8%
100-435-523-5 (ch)-Emergency medical services; aids	$ 2,200,000.00	$ 2,199,680.34	$ 319.66	0.0%
100-435-524-5 (dm)-Rural health dental clinics	$ 1,005,100.00	$ 1,005,100.00	$ 0.00	0.0%
100-435-556-5 (em)-Supplemental food program for women, infant	$ 0.00	$ 262,255.00	($ 262,255.00)	-100.0%
100-435-570-5 (cb)-Well woman program	$ 2,176,967.87	$ 2,218,395.46	($ 41,427.59)	-1.9%
100-435-571-5 (dg)-Clinic aids	$ 167,500.00	$ 0.00	$ 167,500.00	n/a
100-435-572-5 (eu)-Reducing fetal and infant mortality and morbidi	$ 250,000.00	$ 250,000.00	$ 0.00	0.0%
100-435-576-5 (ce)-Services for homeless individuals	$ 125,228.00	$ 124,772.00	$ 456.00	0.4%
100-435-577-5 (ef)-Lead poisoning or lead exposure services	$ 1,000,193.00	$ 997,520.00	$ 2,673.00	0.3%
100-435-578-5 (ev)-Pregnancy outreach and infant health	$ 209,064.72	$ 209,356.28	($ 291.56)	-0.1%
100-435-581-5 (fm)-Tobacco use control grants	$ 13,527,283.98	$ 14,722,717.58	($ 1,195,433.60)	-8.1%
100-435-601-6 (a)-General program operations	$ 16,340,102.33	$ 15,742,881.49	$ 597,220.84	3.8%
100-435-602-6 (e)-Principal repayment and interest	$ 69,673.76	$ 70,990.19	($ 1,316.43)	-1.9%
100-435-604-6 (ee)-Admin. exp. for state suppl to federal supplem	$ 611,800.00	$ 607,088.31	$ 4,711.69	0.8%
100-435-702-7 (bg)-Alzheimer's disease; training and information	$ 123,164.00	$ 129,669.00	($ 6,505.00)	-5.0%
100-435-703-7 (bd)-Community options program and long-term su	$ 69,355,500.00	$ 83,027,300.00	($ 13,671,800.00)	-16.5%
100-435-704-7 (co)-Integrated service programs for children with s	$ 124,351.00	$ 128,661.00	($ 4,310.00)	-3.3%
100-435-706-7 (br)-Respite care	$ 225,000.00	$ 225,000.00	$ 0.00	0.0%
100-435-707-7 (bt)-Early intervention services for infants and toddl	$ 6,987,221.00	$ 6,770,179.00	$ 217,042.00	3.2%
100-435-709-7 (dh)-Programs for senior citizens and elder abuse s	$ 9,383,062.97	$ 9,379,709.03	$ 3,353.94	0.0%
100-435-710-7 (be)-Mental health treatment services	$ 10,557,439.00	$ 10,583,233.00	($ 25,794.00)	-0.2%
100-435-711-7 (d)-Interpreter services and telecommunication aid	$ 175,342.78	$ 155,609.03	$ 19,733.75	12.7%
100-435-713-7 (bm)-Purchased services for clients	$ 94,800.00	$ 94,800.00	$ 0.00	0.0%
100-435-716-7 (c)-Independent living centers	$ 983,500.00	$ 983,500.00	$ 0.00	0.0%
100-435-719-7 (cg)-Guardianship grant program	$ 100,000.00	$ 100,000.00	$ 0.00	0.0%
100-435-774-7 (da)-Reimbursements to local units of government	$ 399,999.61	$ 400,000.00	($ 0.39)	0.0%
100-435-778-7 (dh)-Benefit specialist program	$ 2,478,675.00	$ 2,459,694.00	$ 18,981.00	0.8%

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	Appropriation	Current Period	Prior Period	Amount Chg	% Chg
	100-435-783-7 (bl)-Community support programs and psychosocia	$ 1,064,709.00	$ 1,155,827.00	($ 91,118.00)	-7.9%
	100-435-785-7 (bc)-Grants for community programs	$ 4,034,379.00	$ 6,561,896.00	($ 2,527,517.00)	-38.5%
	100-435-801-8 (a)-General program operations	$ 12,016,987.62	$ 13,383,384.80	($ 1,366,397.18)	-10.2%
	Health Services, Dept.-Subtotal	$ 483,500,201.74	$ 595,066,561.98	($ 111,566,360.24)	-18.7%
437	**Children and Families, Dept of**				
	100-437-101-1 (a)-General program operations	$ 6,281,731.83	$ 0.00	$ 6,281,731.83	n/a
	100-437-102-1 (dd)-State foster care and adoption services	$ 45,967,599.16	$ 0.00	$ 45,967,599.16	n/a
	100-437-108-1 (eg)-Brighter futures grants - GPR	$ 2,067,581.92	$ 0.00	$ 2,067,581.92	n/a
	100-437-109-1 (dg)-State adoption information exchange and state	$ 172,474.56	$ 0.00	$ 172,474.56	n/a
	100-437-110-1 (cf)-Foster, trtmt foster & family-operated group ho	$ 55,914.92	$ 0.00	$ 55,914.92	n/a
	100-437-111-1 (da)-Child welfare program enhancement activities	$ 1,609,802.48	$ 0.00	$ 1,609,802.48	n/a
	100-437-112-1 (dd)-Adoption service contracts	$ 226,999.36	$ 0.00	$ 226,999.36	n/a
	100-437-114-1 (cw)-Milwaukee child welfare services; general pro	$ 12,954,534.50	$ 0.00	$ 12,954,534.50	n/a
	100-437-115-1 (cx)-Milwaukee child welfare services; aids	$ 8,713,071.00	$ 0.00	$ 8,713,071.00	n/a
	100-437-116-1 (cd)-Domestic abuse grants	$ 7,501,139.12	$ 0.00	$ 7,501,139.12	n/a
	100-437-118-1 (cx)-Out of home placement costs	$ 41,166,316.40	$ 0.00	$ 41,166,316.40	n/a
	100-437-124-1 (eg)-Tribal adolescent services	$ 215,941.71	$ 0.00	$ 215,941.71	n/a
	100-437-186-1 (bc)-Grants for children's community programs	$ 836,482.23	$ 0.00	$ 836,482.23	n/a
	100-437-202-2 (b)-Child support local assistance	$ 2,690,269.60	$ 0.00	$ 2,690,269.60	n/a
	100-437-203-2 (a)-General program operations (DWD)	$ 5,015,919.00	$ 0.00	$ 5,015,919.00	n/a
	100-437-204-2 (ab)-Targeted home visiting grants	$ 1,046,749.76	$ 0.00	$ 1,046,749.76	n/a
	100-437-205-2 (cm)-Wisconsin works child care	$ 28,849,400.00	$ 0.00	$ 28,849,400.00	n/a
	100-437-206-2 (dn)-Food distribution costs	$ 320,000.00	$ 0.00	$ 320,000.00	n/a
	100-437-215-2 (dz)-Temporary assistance for needy families; main	$ 100,194,539.00	$ 0.00	$ 100,194,539.00	n/a
	100-437-256-2 (em)-Supplemental food program for women, infant	$ 179,300.00	$ 0.00	$ 179,300.00	n/a
	100-437-301-3 (a)-General program operations	$ 753,600.00	$ 0.00	$ 753,600.00	n/a
	Children and Families, Dept of-Subtotal	$ 266,819,366.55	$ 0.00	$ 266,819,366.55	n/a
438	**Bd For People w/ Dev Disabilit**				
	100-438-101-1 (a)-General program operations	$ 15,000.00	$ 14,923.32	$ 76.68	0.5%
	Bd For People w/ Dev Disabilit-Subtotal	$ 15,000.00	$ 14,923.32	$ 76.68	0.5%
445	**Workforce Development**				
	100-445-101-1 (a)-General program operations	$ 6,636,939.39	$ 6,745,441.39	($ 108,502.00)	-1.6%
	100-445-102-1 (aa)-Special death benefit	$ 484,086.60	$ 174,825.00	$ 309,261.60	176.9%
	100-445-103-1 (cr)-State supplement to employment opportunity	$ 237,500.00	$ 0.00	$ 237,500.00	n/a
	100-445-107-1 (e)-Local youth apprenticeship grants	$ 1,588,010.79	$ 1,407,195.09	$ 180,815.70	12.8%
	100-445-114-1 (fg)-Employment transit aids, state funds	$ 504,218.30	$ 433,315.27	$ 70,903.03	16.4%
	100-445-118-1 (fm)-Youth summer jobs programs	$ 500,000.00	$ 500,000.00	$ 0.00	0.0%
	100-445-119-1 (fr)-Racine County workforce development grant	$ 0.00	$ 25,000.00	($ 25,000.00)	-100.0%
	100-445-201-2 (a)-General program operations, review commissio	$ 200,948.19	$ 234,787.40	($ 33,839.21)	-14.4%
	100-445-301-3 (a)-General program operations	($ 68,618.59)	$ 4,882,288.98	($ 4,950,907.57)	-101.4%
	100-445-302-3 (b)-Child support local assistance	$ 0.00	$ 2,598,107.16	($ 2,598,107.16)	-100.0%
	100-445-305-3 (cm)-Wisconsin works child care	$ 0.00	$ 47,449,400.00	($ 47,449,400.00)	-100.0%
	100-445-310-3 (cr)-State supplement to employment opportunity d	$ 0.00	$ 237,500.00	($ 237,500.00)	-100.0%
	100-445-315-3 (dz)-Temporary assistance for needy families; main	$ 0.00	$ 121,021,700.00	($ 121,021,700.00)	-100.0%

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	Appropriation	Current Period	Prior Period	Amount Chg	% Chg
	100-445-319-3 (e)-Grant to Racine YWCA	$ 0.00	$ 25,000.00	($ 25,000.00)	-100.0%
	100-445-501-5 (a)-State program operations	$ 5,701.12	$ 6,243.78	($ 542.66)	-8.7%
	100-445-502-5 (a)-State Title 1B operations	$ 5,954,938.36	$ 6,030,814.43	($ 75,876.07)	-1.3%
	100-445-505-5 (a)-State program aids	$ 35,000.31	$ 31,141.99	$ 3,858.32	12.4%
	100-445-509-5 (a)-State Title 1B aids	$ 7,184,713.93	$ 7,979,762.43	($ 795,048.50)	-10.0%
	Workforce Development-Subtotal	$ 23,263,438.40	$ 199,782,522.92	($ 176,519,084.52)	-88.4%
455	**Justice, Department of**				
	100-455-101-1 (a)-General program operations	$ 13,825,900.00	$ 13,684,200.00	$ 141,700.00	1.0%
	100-455-102-1 (b)-Special counsel	$ 723,522.36	$ 726,657.89	($ 3,135.53)	-0.4%
	100-455-104-1 (d)-Legal expenses	$ 755,100.00	$ 895,100.00	($ 140,000.00)	-15.6%
	100-455-201-2 (a)-General program operations	$ 17,241,800.00	$ 16,107,000.00	$ 1,134,800.00	7.0%
	100-455-202-2 (am)-Officer training reimbursement	$ 65,206.69	($ 562.18)	$ 65,768.87	11698.9%
	100-455-214-2 (dq)-Law enforcement community policing grants	$ 250,000.00	$ 250,000.00	$ 0.00	0.0%
	100-455-301-3 (a)-General program operations	$ 5,188,100.00	$ 4,977,386.00	$ 210,714.00	4.2%
	100-455-501-5 (a)-General program operations	$ 1,117,700.00	$ 1,107,700.00	$ 10,000.00	0.9%
	100-455-502-5 (b)-Awards for victims of crimes	$ 1,258,000.00	$ 1,258,000.00	$ 0.00	0.0%
	100-455-503-5 (c)-Reimbursement for victim and witness services	$ 1,422,200.00	$ 1,422,200.00	$ 0.00	0.0%
	100-455-504-5 (d)-Reimbursement for forensic examinations	$ 57,484.10	$ 46,400.33	$ 11,083.77	23.9%
	Justice, Department of-Subtotal	$ 41,905,013.15	$ 40,474,082.04	$ 1,430,931.11	3.5%
465	**Military Affairs, Dept. of**				
	100-465-101-1 (a)-General program operations	$ 5,356,612.42	$ 5,262,344.15	$ 94,268.27	1.8%
	100-465-102-1 (b)-Repair and maintenance	$ 735,647.32	$ 735,697.70	($ 50.38)	0.0%
	100-465-103-1 (c)-Public emergencies	$ 41,758.95	$ 659,963.05	($ 618,204.10)	-93.7%
	100-465-104-1 (d)-Principal repayment and interest	$ 3,980,695.59	$ 3,830,896.37	$ 149,799.22	3.9%
	100-465-105-1 (e)-Service flags	$ 400.00	$ 0.00	$ 400.00	n/a
	100-465-106-1 (f)-Utilities, fuel, heating and cooling	$ 2,658,332.13	$ 2,730,098.74	($ 71,766.61)	-2.6%
	100-465-107-1 (b)-Repair and maintenance (air guard)	$ 79,305.00	$ 78,752.04	$ 552.96	0.7%
	100-465-201-2 (a)-Tuition grants	$ 2,918,194.79	$ 3,742,231.31	($ 824,036.52)	-22.0%
	100-465-301-3 (a)-General program operations	$ 660,384.76	$ 690,110.13	($ 29,725.37)	-4.3%
	100-465-305-3 (e)-Disaster recovery aid	$ 8,486,664.18	$ 2,380,304.59	$ 6,106,359.59	256.5%
	100-465-306-3 (dd)-Regional emergency response teams	$ 1,400,000.00	$ 1,400,000.00	$ 0.00	0.0%
	100-465-308-3 (dp)-Emergency response equipment	$ 468,000.00	$ 468,000.00	$ 0.00	0.0%
	100-465-309-3 (dr)-Emergency response supplement	$ 3,071.99	$ 0.00	$ 3,071.99	n/a
	100-465-310-3 (dt)-Emergency response training	$ 92,432.92	$ 36,469.96	$ 55,962.96	153.4%
	100-465-311-3 (f)-Civil air patrol aids	$ 19,000.00	$ 19,000.00	$ 0.00	0.0%
	Military Affairs, Dept. of-Subtotal	$ 26,900,500.05	$ 22,033,868.04	$ 4,866,632.01	22.1%
475	**District Attorneys (DOA)**				
	100-475-104-1 (d)-Salaries and fringe benefits	$ 42,895,546.97	$ 43,035,297.40	($ 139,750.43)	-0.3%
	District Attorneys (DOA)-Subtotal	$ 42,895,546.97	$ 43,035,297.40	($ 139,750.43)	-0.3%
485	**Veterans Affairs, Dept. of**				
	100-485-104-1 (d)-Cemetery maintenance and beautification; king	$ 23,972.88	$ 24,900.00	($ 927.12)	-3.7%
	100-485-106-1 (f)-Principal repayment and interest; king	$ 1,433,929.23	$ 1,449,852.09	($ 15,922.86)	-1.1%
	100-485-110-1 (a)-Aids to indigent veterans	$ 208,700.00	$ 104,300.00	$ 104,400.00	100.1%
	100-485-203-2 (c)-Operation of Wisconsin veterans museum	$ 393,401.69	$ 431,876.85	($ 38,475.16)	-8.9%

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	Appropriation	Current Period	Prior Period	Amount Chg	% Chg
	100-485-205-2 (f)-Mission welcome home	$ 7,345.44	$ 17,000.71	($ 9,655.27)	-56.8%
	100-485-207-2 (e)-Korean War memorial grant	$ 0.00	$ 165,000.00	($ 165,000.00)	-100.0%
	100-485-209-2 (dm)-Military honors funerals; stipends	$ 205,800.00	$ 202,200.00	$ 3,600.00	1.8%
	100-485-217-2 (ac)-Veterans assistance	$ 48,728.81	$ 51,414.81	($ 2,686.00)	-5.2%
	Veterans Affairs, Dept. of-Subtotal	$ 2,321,878.05	$ 2,446,544.46	($ 124,666.41)	-5.1%
505	**Administration, Department of**				
	100-505-101-1 (a)-General program operations	$ 7,314,858.70	$ 7,166,640.34	$ 148,218.36	2.1%
	100-505-105-1 (e)-Indigent civil legal services	$ 1,000,000.00	$ 0.00	$ 1,000,000.00	n/a
	100-505-108-1 (br)-Appropriation obligations repayment; unfunded	$ 102,891,204.44	$ 95,440,997.00	$ 7,450,207.44	7.8%
	100-505-109-1 (fo)-Federal resource acquisition support grants	$ 109,500.00	$ 109,500.00	$ 0.00	0.0%
	100-505-110-1 (cm)-Comprehensive planning grants; general purp	($ 12,000.00)	$ 0.00	($ 12,000.00)	n/a
	100-505-401-4 (a)-Adjudication of tax appeals	$ 515,490.78	$ 404,045.88	$ 111,444.90	27.6%
	100-505-405-4 (d)-Claims awards	$ 0.00	$ 109,643.56	($ 109,643.56)	-100.0%
	100-505-406-4 (ea)-Women's council operations	$ 147,682.87	$ 142,665.50	$ 5,017.37	3.5%
	100-505-407-4 (f)-Hearings and appeals operations	$ 2,583,613.70	$ 2,510,595.25	$ 73,018.45	2.9%
	100-505-408-4 (dr)-Sentencing commission	$ 0.00	$ 68,976.84	($ 68,976.84)	-100.0%
	100-505-411-4 (ec)-Service award program; general program oper	$ 1,279.39	$ 19,089.22	($ 17,809.83)	-93.3%
	100-505-412-4 (er)-Service award program; state matching awards	$ 1,694,346.68	$ 1,601,054.74	$ 93,291.94	5.8%
	100-505-418-4 (bm)-Aid to the Wisconsin covenant foundation, inc	$ 118,091.69	$ 12,913.68	$ 105,178.01	814.5%
	100-505-503-5 (c)-Principal repayment and interest; Black Point E	$ 59,471.88	$ 47,783.19	$ 11,688.69	24.5%
	100-505-601-6 (a)-General program operations	$ 239,170.56	$ 240,557.94	($ 1,387.38)	-0.6%
	100-505-602-6 (b)-Alts. to pros. & incar. for pers. who use alch. or	$ 499,020.00	$ 375,000.00	$ 124,020.00	33.1%
	100-505-603-6 (c)-Law enforcement officer supplement grants	$ 1,439,132.00	$ 1,450,000.00	($ 10,868.00)	-0.7%
	100-505-606-6 (f)-Child advocacy centers	$ 240,000.00	$ 0.00	$ 240,000.00	n/a
	100-505-607-6 (d)-Youth diversion	$ 380,000.00	$ 380,000.00	$ 0.00	0.0%
	100-505-801-8 (am)-Interest on racing and bingo moneys	$ 1,162.83	$ 7,301.54	($ 6,138.71)	-84.1%
	Administration, Department of-Subtotal	$ 119,222,025.52	$ 110,086,764.68	$ 9,135,260.84	8.3%
510	**Elections Board**				
	100-510-101-1 (a)-General program operations; general purpose r	$ 0.00	($ 35,019.63)	$ 35,019.63	-100.0%
	Elections Board-Subtotal	$ 0.00	($ 35,019.63)	$ 35,019.63	-100.0%
511	**Government Accountability Bd**				
	100-511-101-1 (a)-General program operations; general purpose r	$ 2,695,883.36	$ 2,697,288.16	($ 1,404.80)	-0.1%
	100-511-102-1 (b)-Election-related cost reimbursement	$ 99,663.10	$ 44,363.28	$ 55,299.82	124.7%
	100-511-103-1 (be)-Investigations	$ 45,553.45	$ 893.56	$ 44,659.89	4998.0%
	Government Accountability Bd-Subtotal	$ 2,841,099.91	$ 2,742,545.00	$ 98,554.91	3.6%
515	**Employee Trust Fds**				
	100-515-101-1 (a)-Annuity supplements and payments	$ 1,024,082.71	$ 1,288,445.66	($ 264,362.95)	-20.5%
	100-515-104-1 (c)-BadgerRx Gold advances for individuals	$ 13,045.60	($ 1,845.11)	$ 14,890.71	-807.0%
	Employee Trust Fds-Subtotal	$ 1,037,128.31	$ 1,286,600.55	($ 249,472.24)	-19.4%
521	**Ethics**				
	100-521-101-1 (a)-General program operations; general purpose r	$ 0.00	($ 30,000.00)	$ 30,000.00	-100.0%
	Ethics-Subtotal	$ 0.00	($ 30,000.00)	$ 30,000.00	-100.0%
525	**Governor's Office**				

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	100-525-101-1 (a)-General program operations	$ 3,330,651.50	$ 3,190,060.72	$ 140,590.78	4.4%
	100-525-102-1 (b)-Contingent fund	$ 2,417.46	$ 2,254.40	$ 163.06	7.2%
	100-525-103-1 (c)-Membership in national associations	$ 125,900.00	$ 125,900.00	$ 0.00	0.0%
	100-525-108-1 (f)-Literacy improvement aids	$ 22,679.78	$ 24,322.65	($ 1,642.87)	-6.8%
	100-525-201-2 (a)-General program operations	$ 316,944.85	$ 302,806.33	$ 14,138.52	4.7%
	Governor's Office-Subtotal	$ 3,798,593.59	$ 3,645,344.10	$ 153,249.49	4.2%
540	**Lieutenant Governor's Office**				
	100-540-101-1 (a)-General program operations	$ 378,505.26	$ 392,844.66	($ 14,339.40)	-3.7%
	Lieutenant Governor's Office-Subtotal	$ 378,505.26	$ 392,844.66	($ 14,339.40)	-3.7%
545	**Off State Employment Relations**				
	100-545-101-1 (a)-General program operations	$ 5,062,059.04	$ 5,081,049.02	($ 18,989.98)	-0.4%
	Off State Employment Relations-Subtotal	$ 5,062,059.04	$ 5,081,049.02	($ 18,989.98)	-0.4%
550	**Public Defender**				
	100-550-101-1 (a)-Program administration	$ 2,515,676.70	$ 2,581,179.21	($ 65,502.51)	-2.5%
	100-550-102-1 (b)-Appellate representation	$ 5,031,339.19	$ 5,004,298.44	$ 27,040.75	0.5%
	100-550-103-1 (c)-Trial representation	$ 46,421,237.71	$ 45,956,986.04	$ 464,251.67	1.0%
	100-550-104-1 (d)-Private bar and investigator reimbursement	$ 16,376,562.19	$ 28,791,035.92	($ 12,414,473.73)	-43.1%
	100-550-105-1 (e)-Private bar and investigator payments; administ	$ 753,060.30	$ 690,554.32	$ 62,505.98	9.1%
	100-550-106-1 (f)-Transcript, discovery and interpreters	$ 1,339,100.00	$ 1,339,100.00	$ 0.00	0.0%
	Public Defender-Subtotal	$ 72,436,976.09	$ 84,363,153.93	($ 11,926,177.84)	-14.1%
566	**Revenue, Department of**				
	100-566-101-1 (a)-General program operations	$ 47,681,278.05	$ 46,664,778.09	$ 1,016,499.96	2.2%
	100-566-201-2 (a)-General program operations	$ 8,322,355.42	$ 8,198,712.94	$ 123,642.48	1.5%
	100-566-203-2 (b)-Integrated property assessment system technol	$ 867,813.85	$ 0.00	$ 867,813.85	n/a
	100-566-301-3 (a)-General program operations	$ 20,611,091.44	$ 21,238,490.34	($ 627,398.90)	-3.0%
	100-566-302-3 (a)-Space rental payments	$ 4,867,701.42	$ 4,743,103.02	$ 124,598.40	2.6%
	100-566-303-3 (c)-Expert professional services	$ 37,799.50	$ 27,174.70	$ 10,624.80	39.1%
	100-566-304-3 (b)-Integrated tax system technology	$ 4,166,254.55	$ 4,256,374.53	($ 90,119.98)	-2.1%
	Revenue, Department of-Subtotal	$ 86,554,294.23	$ 85,128,633.62	$ 1,425,660.61	1.7%
625	**Circuit Courts**				
	100-625-101-1 (a)-Circuit courts	$ 66,493,588.68	$ 63,633,848.03	$ 2,859,740.65	4.5%
	100-625-106-1 (c)-Court interpreter fees	$ 1,125,100.00	$ 1,051,204.99	$ 73,895.01	7.0%
	100-625-107-1 (d)-Circuit court support payments	$ 18,739,600.00	$ 18,739,600.00	$ 0.00	0.0%
	100-625-108-1 (e)-Guardian ad litem fees	$ 4,738,500.00	$ 4,738,500.00	$ 0.00	0.0%
	Circuit Courts-Subtotal	$ 91,096,788.68	$ 88,163,153.02	$ 2,933,635.66	3.3%
660	**Court of Appeals**				
	100-660-101-1 (a)-General program operations	$ 9,688,185.59	$ 9,554,964.62	$ 133,220.97	1.4%
	Court of Appeals-Subtotal	$ 9,688,185.59	$ 9,554,964.62	$ 133,220.97	1.4%
665	**Judicial Commission**				
	100-665-101-1 (a)-General program operations	$ 226,271.52	$ 222,773.46	$ 3,498.06	1.6%
	100-665-104-1 (cm)-Contractual agreements	$ 2,167.40	$ 726.00	$ 1,441.40	198.5%
	Judicial Commission-Subtotal	$ 228,438.92	$ 223,499.46	$ 4,939.46	2.2%

TOP 10 STATE PROGRAMS

As of June 30, 2009 (Final, Adjusted) Compared to June 30, 2008 (Final, Adjusted)

	Appropriation	Current Period	Prior Period	Amount Chg	% Chg
670	**Judicial Council**				
	100-670-101-1 (a)-General program operations	$ 105,792.43	$ 42,643.43	$ 63,149.00	148.1%
	Judicial Council-Subtotal	$ 105,792.43	$ 42,643.43	$ 63,149.00	148.1%
680	**Supreme Court**				
	100-680-101-1 (a)-General program operations	$ 4,779,120.40	$ 4,569,410.64	$ 209,709.76	4.6%
	100-680-201-2 (a)-General program operations	$ 7,087,352.30	$ 6,758,786.62	$ 328,565.68	4.9%
	100-680-401-4 (a)-General program operations	$ 2,092,385.87	$ 2,060,645.99	$ 31,739.88	1.5%
	Supreme Court-Subtotal	$ 13,958,858.57	$ 13,388,843.25	$ 570,015.32	4.3%
765	**Legislative**				
	100-765-101-1 (a)-General program operations--assembly	$ 22,797,749.53	$ 23,163,910.48	($ 366,160.95)	-1.6%
	100-765-103-1 (b)-General program operations--senate	$ 15,062,834.84	$ 15,438,906.74	($ 376,071.90)	-2.4%
	100-765-104-1 (d)-Legislative documents	$ 3,682,403.00	$ 4,090,115.66	($ 407,712.66)	-10.0%
	100-765-301-3 (a)-Revisor of statutes bureau	$ 0.00	$ 554,213.00	($ 554,213.00)	-100.0%
	100-765-302-3 (b)-Legislative reference bureau	$ 5,950,339.99	$ 5,458,401.08	$ 491,938.91	9.0%
	100-765-303-3 (c)-Legislative audit bureau	$ 5,225,734.24	$ 4,874,727.84	$ 351,006.40	7.2%
	100-765-304-3 (d)-Legislative fiscal bureau	$ 3,376,222.46	$ 3,210,977.84	$ 165,244.62	5.1%
	100-765-305-3 (e)-Joint leg council, exec of functions, research, d	$ 3,655,684.82	$ 3,494,209.83	$ 161,474.99	4.6%
	100-765-306-3 (ec)-Joint legislative council; contractual studies	$ 15,000.00	$ 0.00	$ 15,000.00	n/a
	100-765-308-3 (fa)-Membership in national associations	$ 208,721.00	$ 193,746.00	$ 14,975.00	7.7%
	100-765-311-3 (em)-Legislative technology services bureau	$ 3,541,938.81	$ 3,295,161.57	$ 246,777.24	7.5%
	Legislative-Subtotal	$ 63,516,628.69	$ 63,774,370.04	($ 257,741.35)	-0.4%
835	**Shared Revenue & Tax Relief**				
	100-835-109-1 (e)-State aid; tax exempt property	$ 67,966,649.00	$ 65,067,603.00	$ 2,899,046.00	4.5%
	100-835-110-1 (dm)-Public utility distribution account	$ 6,242,400.00	$ 6,242,400.00	$ 0.00	0.0%
	100-835-202-2 (b)-Claim of right credit	$ 231,907.64	$ 121,813.81	$ 110,093.83	90.4%
	100-835-211-2 (co)-Enterprise zone jobs credit	$ 1,904.00	$ 0.00	$ 1,904.00	n/a
	100-835-213-2 (bm)-Film production services credit	$ 5,467,125.55	$ 0.00	$ 5,467,125.55	n/a
	100-835-216-2 (bn)-Dairy manufacturing facility investment credit	$ 698,344.00	$ 76,113.00	$ 622,231.00	817.5%
	100-835-501-5 (a)-Payments for municipal services	$ 21,998,800.00	$ 21,998,800.00	$ 0.00	0.0%
	Shared Revenue & Tax Relief-Subtotal	$ 102,607,130.19	$ 93,506,729.81	$ 9,100,400.38	9.7%
855	**Miscellaneous Appropriations**				
	100-855-101-1 (a)-Obligation on operating notes	$ 12,502,541.46	$ 18,984,486.38	($ 6,481,944.92)	-34.1%
	100-855-102-1 (b)-Operating note expenses	$ 173,251.68	$ 161,186.67	$ 12,065.01	7.5%
	100-855-108-1 (bm)-Payment of cancelled drafts	$ 1,292,482.32	$ 4,101,242.31	($ 2,808,759.99)	-68.5%
	100-855-401-4 (a)-Interest on overpayment of taxes	$ 2,734,890.15	$ 426,660.97	$ 2,308,229.18	541.0%
	100-855-402-4 (b)-Election campaign payments	$ 376,148.00	$ 219,939.00	$ 156,209.00	71.0%
	100-855-403-4 (c)-Minnesota income tax reciprocity	$ 75,880,000.00	$ 69,050,000.00	$ 6,830,000.00	9.9%
	100-855-404-4 (bm)-Oil pipeline terminal tax distribution	$ 774,788.69	$ 1,047,589.51	($ 272,800.82)	-26.0%
	100-855-405-4 (e)-Transfer to conservation fund; land acquisition r	$ 152,847.41	$ 232,288.95	($ 79,441.54)	-34.2%
	100-855-408-4 (f)-Transfer to environmental fund; nonpoint source	$ 13,625,000.00	$ 11,514,000.00	$ 2,111,000.00	18.3%
	100-855-409-4 (fm)-Transfer to the transportation fund; hub facility	$ 1,953,300.00	$ 1,953,300.00	$ 0.00	0.0%
	100-855-413-4 (cm)-Illinois income tax reciprocity	$ 42,267,000.00	$ 38,036,000.00	$ 4,231,000.00	11.1%
	100-855-414-4 (fs)-Aid for certain local purchases and projects	$ 0.00	$ 87,500.00	($ 87,500.00)	-100.0%
	100-855-801-8 (a)-Dental clinic and educ facility; principal repaym	$ 989,402.76	$ 993,679.90	($ 4,277.14)	-0.4%

TOP 10 STATE PROGRAMS

As of June 30, 2009 (Final, Adjusted) Compared to June 30, 2008 (Final, Adjusted)

	Appropriation	Current Period	Prior Period	Amount Chg	% Chg
	103-855-108-1 (bm)-Payment of cancelled drafts	$ 16,862.86	$ 20,651.82	($ 3,788.96)	-18.3%
	Miscellaneous Appropriations-Subtotal	$ 152,738,515.33	$ 146,828,525.51	$ 5,909,989.82	4.0%
865	**Program Supplements**				
	100-865-205-2 (e)-Maintenance of capitol and executive residence	$ 5,337,400.00	$ 5,337,400.00	$ 0.00	0.0%
	Program Supplements-Subtotal	$ 5,337,400.00	$ 5,337,400.00	$ 0.00	0.0%
867	**Building Commission**				
	100-867-102-1 (b)-Principal repayment and interest; capitol and ex	$ 7,860,606.27	$ 8,057,798.49	($ 197,192.22)	-2.4%
	100-867-301-3 (a)-Principal repayment and interest	($ 1,850,485.23)	($ 233,377.74)	($ 1,617,107.49)	692.9%
	100-867-302-3 (b)-Principal repayment and interest	$ 1,216,152.53	$ 1,222,308.09	($ 6,155.56)	-0.5%
	100-867-306-3 (br)-Principal repayment, interest and rebates	$ 84,004.53	$ 85,757.31	($ 1,752.78)	-2.0%
	100-867-309-3 (bm)-Principal repayment, interest, and rebates; H	$ 115,890.40	$ 112,311.65	$ 3,578.75	3.2%
	100-867-311-3 (bq)-Principal repayment, interest and rebates; chil	$ 448,026.95	$ 319,380.62	$ 128,646.33	40.3%
	100-867-313-3 (bu)-Principal repayment, interest, rebates; Kenosh	$ 6,555.27	$ 0.00	$ 6,555.27	n/a
	Building Commission-Subtotal	$ 7,880,750.72	$ 9,564,178.42	($ 1,683,427.70)	-17.6%
	All Other Subtotal	$ 2,173,651,458.01	$ 2,155,313,655.95	$ 18,337,802.06	0.9%
	Top 10 Totals	$ 12,744,300,082.75	$ 13,526,318,815.49	($ 782,018,732.74)	-5.8%

Other non GPR Information

As of June 30, 2009 (Final, Adjusted)

	Appropriation	Current Period	Prior Period	Amount Chg	% Chg
	School Aids Other				
255	Public Instruction, Dept. of				
	100-255-240-2 (p)-Federal Aids; State Allocation	$ 552,278,000.00	$ 0.00	$ 552,278,000.00	n/a
	Public Instruction, Dept. of-Subtotal	$ 552,278,000.00	$ 0.00	$ 552,278,000.00	n/a
	School Aids Other Subtotal	$ 552,278,000.00	$ 0.00	$ 552,278,000.00	n/a
	Medical Assistance-Fed				
435	Health Services, Dept.				
	100-435-140-1 (n)-Medical assistance state administration	$ 280,732.89	$ 247,436.80	$ 33,296.09	13.5%
	100-435-393-3 (n)-Medical assistance - state	$ 0.00	$ 102,872.25	($ 102,872.25)	-100.0%
	100-435-440-4 (n)-Medical assistance state administration	$ 13,028,210.85	$ 11,906,002.45	$ 1,122,208.40	9.4%
	100-435-453-4 (o)-Federal aid; medical assistance	$ 3,459,455,206.69	$ 2,579,275,422.35	$ 880,179,784.34	34.1%
	100-435-454-4 (pa)-Federal aid; medical assistance and food stam	$ 67,493,738.94	$ 71,283,360.06	($ 3,789,621.12)	-5.3%
	100-435-455-4 (pa)-Federal aid; MA contract administration -- fami	$ 10,399,117.66	$ 4,733,179.00	$ 5,665,938.66	119.7%
	100-435-456-4 (o)-Federal aid; MA -- family care	$ 373,595,851.82	$ 184,894,904.35	$ 188,700,947.47	102.1%

TOP 10 STATE PROGRAMS

As of June 30, 2009 (Final, Adjusted) Compared to June 30, 2008 (Final, Adjusted)

Appropriation	Current Period	Prior Period	Amount Chg	% Chg
100-435-640-6 (n)-Medical assistance state administration	$ 11,391,172.06	$ 10,905,805.56	$ 485,366.50	4.5%
100-435-655-6 (n)-Medical assistance survey and certification oper	$ 6,187,590.83	$ 6,274,673.92	($ 87,083.09)	-1.4%
225-435-493-4 (w)-Medical assistance trust fund	$ 709,697,036.81	$ 212,060,662.96	$ 497,636,373.85	234.7%
234-435-480-4 (xc)-Hospital Payments	$ 165,836,108.21	$ 0.00	$ 165,836,108.21	n/a
Health Services, Dept.-Subtotal	$ 4,817,364,766.76	$ 3,081,684,319.70	$ 1,735,680,447.06	56.3%
Medical Assistance-Fed Subtotal	$ 4,817,364,766.76	$ 3,081,684,319.70	$ 1,735,680,447.06	56.3%

Community Aids-Fed

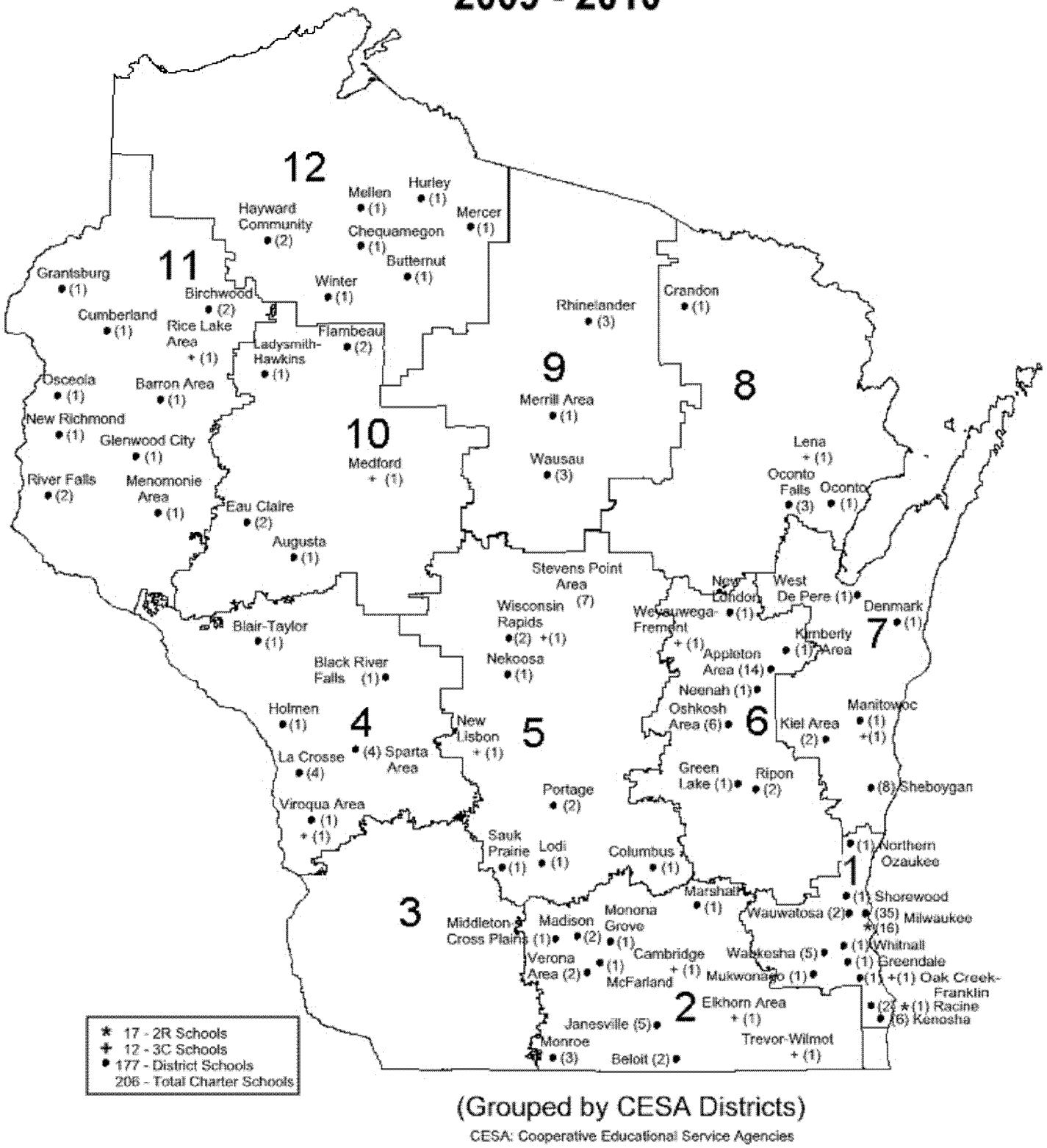
435	Health Services, Dept.				
	100-435-754-7 (o)-Foster care community aids	$ 0.00	$ 28,634,700.00	($ 28,634,700.00)	-100.0%
	100-435-756-7 (o)-Child welfare-aids to localities	($ 5,290.25)	$ 3,428,762.00	($ 3,434,052.25)	-100.2%
	100-435-790-7 (o)-Substance abuse block grant - local assistance	$ 9,695,772.00	$ 9,739,012.00	($ 43,240.00)	-0.4%
	100-435-792-7 (o)-Social services block-local assistance	$ 30,055,021.21	$ 26,367,853.00	$ 3,687,168.21	14.0%
	100-435-794-7 (o)-Temporary assistance for needy families - com	$ 12,871,920.00	$ 13,420,500.00	($ 548,580.00)	-4.1%
	100-435-795-7 (o)-Community mental health block grant - local as	$ 2,312,355.00	$ 2,519,991.00	($ 207,636.00)	-8.2%
	Health Services, Dept.-Subtotal	$ 54,929,777.96	$ 84,110,818.00	($ 29,181,040.04)	-34.7%
	Community Aids-Fed Subtotal	$ 54,929,777.96	$ 84,110,818.00	($ 29,181,040.04)	-34.7%

SSI

435	Health Services, Dept.				
	100-435-765-7 (ky)-Department of workforce development paymen	$ 28,091,116.05	$ 28,354,854.55	($ 263,738.50)	-0.9%
	Health Services, Dept.-Subtotal	$ 28,091,116.05	$ 28,354,854.55	($ 263,738.50)	-0.9%
	SSI Subtotal	$ 28,091,116.05	$ 28,354,854.55	($ 263,738.50)	-0.9%
	Total for Other Non GPR Information	$ 5,452,663,660.77	$ 3,194,149,992.25	$ 2,258,513,668.52	70.7%

Appendix 28: Wisconsin Map of Charter Schools

Wisconsin Charter Schools by Location
2009 - 2010

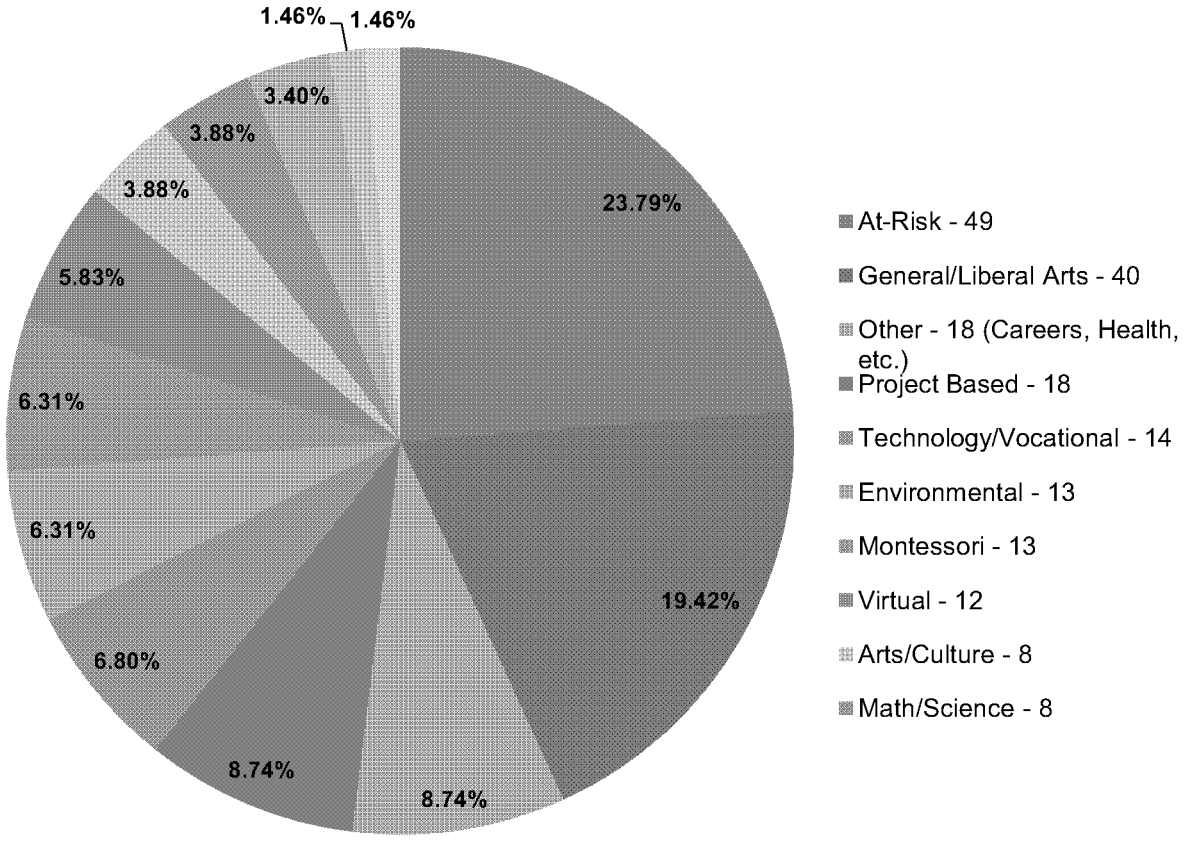


(Grouped by CESA Districts)

CESA: Cooperative Educational Service Agencies

Appendix 29: 2009-2010 Charter Schools By Type

2009-2010 Charter Schools by Type



Note: Figure shows focus of all operating charter schools in Wisconsin during the 2009-2010 school year. Total schools= **206**