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**NEW MEXICO'S RACE TO THE TOP  
APPLICATION FOR INITIAL  
FUNDING**  
.....

CFDA Number: 84.395A

*Response to the RTTT*

*Appendix*

SUBMITTED by Governor Bill Richardson and the New Mexico Public Education Department

<b>Legal Name &amp; Mailing Address of Applicant:</b> State of New Mexico Public Education Department 300 Don Gaspar Santa Fe, NM 87501-2786	<b>Point of Contact:</b> Dr. Veronica C. Garcia Cabinet Secretary, Public Education Telephone: 505-827-6688 Email Address: Veronica.garcia1@state.nm.us
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SUBMITTED on Tuesday, June 1, 2010

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**Appendix A-1-1**

**LEA Memorandum of Understanding and Scope of Work Forms**

**MEMORANDUM OF UNDERSTANDING**

Between the New Mexico Public Education Department (NMPED)

and \_\_\_\_\_

This **MEMORANDUM OF UNDERSTANDING** (MOU) is made by and between the New Mexico Public Education Department (NMPED) and the \_\_\_\_\_ (PARTICIPATING LEA).

**WHEREAS**, NMPED and \_\_\_\_\_, are empowered to enter into MOUs; and

**WHEREAS** NMPED, on behalf of the State of New Mexico is applying for a Race to the Top grant from the United States Department of Education (USDE)

**WHEREAS**, Participating LEA's in a State's Race to the Top plans are required to enter into a Memorandum of Understanding (MOU) or other binding agreement with the State that specifies the scope of the work being implemented by the participating LEA.

**WHEREAS**, the parties wish to formalize a cooperative agreement between NMPED and \_\_\_\_\_ regarding the meeting of specific goals, activities and annual targets for key performance measures through both the State's Plan under the proposed Race to the Top grant and complementary LEA plan of the Participating LEA.

**WHEREAS**, the parties wish to establish a framework of collaboration, as well as articulate specific roles and responsibilities in support of the NMPED in its implementation of an approved Race to the Top grant project.

**NOW, THEREFORE**, the parties mutually agree as follows:

**A. DEFINITIONS:**

“LEA Plan” means an LEA’s proposed reform plans describing the LEA’s specific goals, activities, timelines, budgets, key personnel, and annual targets for key performance measures that are consistent with the State Plan and will be implemented by a Participating LEA upon receiving a Race to the Top funds.

“Participating LEA” means a Local Education Agency, such as a school district or a charter school, which enters into this MOU or similar agreement with NMPED in regards

to NMPED's proposed Race to the Top grant. The Participating LEA named in this agreement is a party to this MOU.

"Race to the Top" means a federal grant issued by the U.S. Department of Education.

"State Plan" means NMPED's proposed reform plans to be implemented under a Race to the Top grant.

## **B. PROJECT ADMINISTRATION**

### **1. Participating LEA Responsibilities**

In assisting NMPED in implementing the tasks and activities described in the NMPED's Race to the Top application, the Participating LEA will:

- a) Implement the Scope of Work as identified in Exhibit I of this agreement and in any LEA plan submitted by the LEA upon 90 days after a Top of the World grant is awarded to NMPED.
- b) 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 USDE.
- c) Submit to NMPED for inclusion on the NMPED website, all non-proprietary products and lessons learned developed using funds associated with the Race to the Top grant;
- d) Participate, as requested, in any evaluations of this grant conducted by the State or USDE;
- e) Be responsive to NMPED or USDE requests for information including on the status of the project, project implementation, outcomes, and any problems anticipated or encountered;
- f) Participate in all meetings and telephone conferences with NMPED 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.
- g) Provide an LEA Plan to NMPED no later than 90 days after a Race to the Top grant is awarded the State, which will describe the LEA's specific goals, activities, timelines, budgets, key personnel, and annual targets for key performance measures.

### **2. NMPED Responsibilities**

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

- a) Work collaboratively with, and support the Participating LEA in carrying out the LEA plan and the Scope of Work identified in Exhibit I of this agreement;
- b) Distribute the LEA's portion of Race to the Top grant funds during the course of the project period and in accordance with any LEA Plan submitted by the Participating LEA;
- c) Provide feedback on the LEA's status updates, annual reports, any interim reports, and project plans and products; and
- d) Identify sources of technical assistance for the project.

### 3. Joint Responsibilities

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

## **C. STATE RECOURSE FOR LEA NON-PERFORMANCE**

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

## **D. 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 NMPED'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 detailed LEA Plan to NMPED if the NMPED'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 the LEA's specific goals, activities, timelines, budgets, key personnel, and annual targets for key performance measures in a manner that is consistent with the Preliminary Scope of Work (Exhibit I) and with the State Plan;
- 5) Will comply with all of the terms of the Race to the Top grant, 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, 79,80,82,84,86,97,98 and 99).

#### **E. AMENDMENTS**

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

#### **F. LIABILITY**

Each party shall be solely responsible for fiscal or other sanctions occasioned as a result of its own violation or alleged violation of requirements to the performance of this MOU. Each party shall be liable for its own actions resulting from the performance of this MOU.

Neither party shall be responsible for liability incurred as a result of the other party's acts or omissions in connection with this Agreement. Any liability incurred in connection with this Agreement is subject to the immunities and limitation of the New Mexico Tort Claims Act.

#### **G. 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. If a grant is not received, this MOU shall terminate upon notice from the USED of failure of NMPED to receive a grant.

**IN WITNESS WHEREOF**, NMPED and \_\_\_\_\_ do hereby execute the Memorandum of Understanding as of the last signed date below

NEW MEXICO PUBLIC EDUCATION DEPARTMENT

BY: \_\_\_\_\_  
Dr. Veronica C. García,  
Secretary of Education

Date: \_\_\_\_\_

\_\_\_\_\_  
(SCHOOL DISTRICT OR CHARTER SCHOOL)

BY: \_\_\_\_\_

Date: \_\_\_\_\_

**A. EXHIBIT I – PRELIMINARY SCOPE OF WORK**

\_\_\_\_\_ (Participating LEA) hereby agrees to participate in implementing the State Plan in each of the areas identified below.

<b>Elements of State Reform Plans</b>
<b>B. Standards and Assessments</b>
(B)(3) Support the transition to enhanced standards and high-quality assessments adopted by the State by: <ul style="list-style-type: none"><li>• Participating in the implementation of:<ul style="list-style-type: none"><li>– New Mexico K-12 Content Standards &amp; Benchmarks that will be aligned with the Common Core Standards including STEM</li><li>– High quality assessments that are aligned with the New Mexico K-12 Content Standards &amp; Benchmarks</li><li>– For designated LEAs, a standardized curriculum aligned with the New Mexico K-12 Content Standards &amp; Benchmarks (See Table E-2.2)</li><li>– For designated LEAs, formative assessments calibrated to every student’s ability level as the State makes these available. (See Table E-2.2)</li></ul></li><li>• Participating in the development, implementation and adoption of Professional Development opportunities related to the implementation of enhanced standards and high-quality assessments</li><li>• Providing information requested by the State to support monitoring of adoption by schools of enhanced standards and high-quality assessments</li><li>• Interacting with and providing information to local Community Engagement Collaboratives as appropriate to more fully engage students, parents, and the community</li><li>• Participating with the State in strengthening and enhancing the Web-Based Educational Plan for Student Success (EPSS).</li><li>• Developing a more flexible and student-centered approach that allows, enables and encourages students who demonstrate competency to graduate and move on to college when ready as defined by the State’s RTTT plan.</li></ul>
<b>C. Data Systems to Support Instruction</b>
(C)(3) Support using data to improve instruction by working with the State to:

### Elements of State Reform Plans

- Provide the data requested by the RTTT application.
- Participate in partnerships with the NMPED in the development of intensive, embedded and effective professional development for professional staff using the State's enhanced data systems to improve instruction.
- Provide local and regional communities, including the Community Engagement Collaboratives, with the data and support needed to participate in the transformation of not only the low-achieving schools, but all schools within the district.

### D. Great Teachers and Leaders

(D)(2) Improving teacher and principal effectiveness based on performance by:

- Supporting and participating in the Teacher and Principal Effectiveness Task Force which will:
  1. Develop multiple measures of teacher effectiveness including student growth, multiple observation-based assessments and other sources of information.
  2. Develop multiple measures of principal effectiveness including student growth, the quality of the school's teaching and learning environment, strong instructional leadership, and strong involvement with families and communities.
  3. Determine how these measures can be effectively gathered, interpreted, and disseminated and then fairly used in appropriate ways to improve student instruction, inform professional development, and identify highly effective teachers and principals who will be eligible to participate in New Mexico Exemplary Teacher and Principal Cadres.
  4. Determine how these enhanced measures of teacher and principal effectiveness can be used to improve New Mexico's current evaluation and compensation systems including the Three-Tiered Teacher Licensure System and the New Mexico Highly Objective Uniform Statewide Standard of Evaluation for Principals and Assistant Principals.
  5. Determine how these enhance measures of teacher and principal effectiveness can be used to strengthen school districts ability to recruit and retain effective teachers and principals.
  6. Determine how these enhance measures of teacher and principal effectiveness can be used to provide feedback to improve educator preparation programs, beginning teacher and principal mentoring programs and the professional development efforts at the school, district, and state levels.
  7. Ensure that prospect and current teachers and principals have a strong understanding of how they will be evaluated and establish a well-funded support system that helps them meet the new criteria.

### Elements of State Reform Plans

- Supporting and participating in NMPED's efforts to establish the New Mexico Exemplary Teacher and Principal Cadres, made up of select teachers and principals who will be provided opportunities to obtain additional compensation for their role in improving student achievement in persistently low-achievement schools.
- Supporting and participating in the efforts of the New Mexico Leadership Institute to use the results from the Teacher and Principal Effectiveness Task Force and the lessons learned from the New Mexico Exemplary Teacher and Principal Cadre to strengthen the recruitment, preparation, and support of principals and other school leaders.

#### (D)(3) Ensuring equitable distribution of effective teachers and principals by:

- Supporting and participating in the Teacher and Principal Effectiveness Task Force goal of developing web-based reporting systems aimed in providing access to school, district and state level analyses of data related to equitable distribution of effective teachers and principals.
- Partnering with PED in the expansion of current efforts to recruit high school students, college students, and adults into the teaching profession.
- Supporting and participate in the efforts of the New Mexico Leadership Institute to recruit effective principals and other school leaders by identifying experienced teachers and other potential school leaders within school districts and within higher education institutions..

#### (D)(4) Improving the effectiveness of teacher and principal preparation programs:

- Supporting and participating in the Teacher and Principal Effectiveness Task Force's goal of developing develop a methodology for linking measures of teacher and principal effectiveness to the teacher and principal preparation programs and to specific district beginning teacher and principal mentoring programs.

#### D)(5) Providing effective support to teachers and principals:

- Supporting and participating in the Teacher and Principal Effectiveness Task Force's goal of developing recommendations for improving and funding models that strengthen the New Mexico Beginning Teacher Mentoring Program, The New Mexico Professional Development Framework, and the New Mexico Principal Support Network.

### **Elements of State Reform Plans**

- Support and participate in New Mexico’s efforts to expand and strengthen Professional Learning Communities within and across New Mexico’s schools and personnel support devoted to schools and districts to support student achievement.
- Support and participate in the development and implementation of web-based Individualized Professional Development Accounts for teachers and principals.
- Support and participate in The New Mexico Leadership Institute’s efforts to support school-based leadership teams comprised of superintendents, principals, teachers, parents, school board and community members; develop focused professional development programs for superintendents, principals and teacher leaders on topics including improving student success in persistently low-achieving schools, school budgets, and strengthening science, technology, engineering, and mathematics (STEM) instruction.

### **E. Turning Around the Lowest-Achieving Schools**

(E)(2) Turning around the lowest-achieving schools by:

- Supporting the New Mexico Exemplary Teacher and Principal Cadres as they work to improve student success in New Mexico low achieving schools.
- Supporting and participating in the development of Community Engagement Collaboratives aimed at building effective and well-supported networks of parents, local communities, the schools, the state and other stakeholders who can focus attention and resources on improving student success in low-achieving schools.
- Partnering with the Public Education Department plan to strength the capacity of low-achieving schools by implementing a statewide model of instructional coaching that enhances the efforts of instructional coaches currently working in New Mexico’s schools.
- Partnering with the Public Education Department to expand the WebEPSS online resource that enhances teachers and principals’ capacity to link instruction to standards and assessments.
- Partnering with the Public Education Department in the development and implementation of a web-based, virtual competition aimed at motivating students and

**Elements of State Reform Plans**

strengthening their science, technology, mathematics and engineering (STEM) skills.

**SIGNATURES**

**For the Participating LEA**

**For the State**

\_\_\_\_\_  
**Authorized LEA Signature/Date**

\_\_\_\_\_  
**Authorized State Signature/Date**

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

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

**IF AN LEA HAS A SCHOOL APPEARING ON THE ATTACHED “ELIGIBLE TO APPLY” LIST (See the List from Table E-2.1 of the State’s RTTT Plan below), THE LEA IS ELIGIBLE TO RECEIVE ADDITIONAL FUNDING TO IMPLEMENT THIS ADDITIONAL COMPONENT OF SECTION E BELOW.**

**E. Turning Around the Lowest-Achieving Schools**

(E)(2) Turning around the lowest-achieving schools by

- Partnering with the Public Education Department in implementing the four required intervention models in New Mexico’s persistently lowest-achieving schools. The four interventions include the Turnaround Model, the Restart Model, the School Closure Model, and the Transformation Model. The intervention for each of persistently lowest-achievement school will be selected after full discussion with and agreement by the district superintendent, local board of education, teachers and other educators.

**ONLY SUPERINTENDENTS WHO HAVE SCHOOLS ON THE ATTACHED ELIGIBLE TO APPLY LIST BELOW SHOULD SIGN IN THIS SECTION.**

**SIGNATURES**

**For the Participating LEA**

**For the State**

\_\_\_\_\_  
**Authorized LEA Signature/Date**

\_\_\_\_\_  
**Authorized State Signature/Date**

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

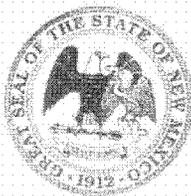
\_\_\_\_\_  
**Print Name/Title**

<b>Table E-2.1: New Mexico Schools Eligible to Apply for a School Improvement Grant or Race to the Top Funds</b>	
<b>School Name in Priority Order</b>	<b>District</b>
1. Lybrook Elementary	Jemez Mountain
2. Church Rock Elementary	Gallup-McKinley
3. El Camino Real	APS Charter
4. Navajo Elementary	Gallup-McKinley
5. Dulce Middle	Dulce
6. Tohatchi Middle	Gallup-McKinley
7. Cuba High	Cuba
8. Twin Buttes High	Zuni
9. Ramirez Thomas Elementary	Santa Fe
10. Naschitti Elementary	Central
11. Crownpoint High	Gallup-McKinley
12. Pecos Middle	Pecos
13. Newcomb High	Central
14. Bell Elementary	Deming

15. Seboyeta Elementary	Grants-Cibola
16. Navajo Pine High	Gallup-McKinley
17. Vaughn Elementary	Vaughn
18. Laguna-Acoma High	Grants-Cibola
19. Ernie Pyle Middle	APS
20. Crownpoint Elementary	Gallup-McKinley
21. Valley Middle	West Las Vegas
22. Stagecoach Elementary	Gallup-McKinley
23. R. Sarracino Middle	Socorro
24. Pecos High	Pecos
25. Tohatchi High	Gallup-McKinley
26. Rio Grande High	APS
27. David Skeet Elementary	Gallup-McKinley
28. Ojo Amarillo Elementary	Central
29. Will Rogers Elementary	Hobbs
30. Edward Ortiz Middle	Santa Fe
31. Thoreau High	Gallup-McKinley
32. Shiprock High	Central
33. Van Buren Middle	APS
34. Kaune Elementary	SFPS
35. Magdalena Middle	Magdalena

## Letters of Support

1. Bill Richardson- Governor of New Mexico
2. Christine Trujillo, President- American Federation of Teachers
3. Winston Brooks, Superintendent- Albuquerque Public Schools
4. Augustine Chris Baca, President- Youth Development Inc.
5. Brian Ormand, Director- NM Learning Network Program
6. Alex O. Romero, CEO/President-Albuquerque Hispano Chamber of Commerce
7. Everette W. Hill, Executive Director- NM Forum for Youth in Community
8. Dr. Harold Bailey, Executive Director-Office of African American Affairs
9. Bruce Hegwer, Executive Director- Southwest Regional Education Center
10. Michael D. DeWitte, Senior Manager- Sandia National Laboratories
11. Mercedes Sandoval, President- NM Parent Teacher Association
12. Jenny Parks, President- NM Community Foundation
13. Cynthia A. Gustke, NM Family Parent Involvement Advisory Council
14. Viola Flores, Cabinet Secretary of Higher Education, NM Higher Education
15. Dr. Ellen Bernstein, President- Albuquerque Teachers Federation
16. Polly Anderson, Manager/ CEO-KNME
17. Jose Armas, Ph.D., Latino/Hispano Education Improvement Task Force
18. Dr. Linda Paul, Executive Director, New Mexico Leadership Institute
19. Dr. Ray Johnson, Senior VP & Chief Technical Officer, Lockheed Martin
20. Larry Langley, President & CEO, New Mexico Business Roundtable
21. Dr. Kurt Steinhaus, Director Community Relations Office, Los Alamos National Laboratory
22. Lawrence Roybal, Executive Director, ENLACE
23. Irene E. Lee, Principal Investigator, Project GUTS (Growing Up Thinking Scientifically), Santa Fe Institute
24. Jami Grindatto. Corporate Affairs Manager, Southwestern U.S. Region, Intel Corporation
25. Polly Anderson, General Manager and CEO, KNME
26. Dr. Lisa Grover, CEO, New Mexico Coalition for Charter Schools
27. Dr. Scott Hughes, Director, Office of Education Accountability, New Mexico Department of Finance and Administration
28. Eugene W. Hill, Executive Director, New Mexico Forum for Youth in Community
29. Susan Oberlander, New Mexico State Librarian
30. Stuart A. Ashman, Cabinet Secretary, New Mexico Department of Cultural Affairs
31. Joe Guillen, Executive Director, New Mexico School Boards Association
32. Tom Sullivan, Executive Director, New Mexico Coalition of School Administrators
33. Jamai Blivin. CEO/President, Innovate-Educate Board of Directors



# State of New Mexico

## Office of the Governor

Bill Richardson  
Governor

May 24, 2010

Secretary Arne Duncan  
Secretary of Education  
U.S. Department of Education  
400 Maryland Avenue SW  
Washington, DC 20202-0008

Dear Secretary Duncan:

Since I took office in 2003, improving education has been, and remains, the top priority of my Administration. During my tenure, I have set out a bold agenda for reform that seeks to ensure that every New Mexico child is afforded the necessary opportunities for success.

I have spearheaded sweeping changes in education from preschool to higher education that include:

- Improving the governance, both K-12 and in higher education, to ensure more accountability;
- Focusing significant resources in early childhood education and child wellness initiatives;
- Setting high expectations, provided that students are held to rigorous academic standards, and assessed comprehensively;
- Revising how school teachers and leaders are evaluated, tying increased compensation to increased accountability;
- Redesigning high school ensuring students graduate ready for college and career entry; and
- Creating the New Mexico Data Warehouse Council, to guarantee from the statehouse to the schoolhouse, from home, to school, to work, educators have the data they need to ensure that all children in New Mexico receive a world class education.

We have made important strides in improving student outcomes, but as our student achievement data shows, more work needs to be done.

Page 2  
May 24, 2010

Because of my strong commitment to education, I believe that the Race to the Top competition is the most important federal initiative that has been implemented during my Administration. New Mexico is poised to serve as a leader for other states in the arenas of rigorous standards and assessment, comprehensive data systems, outstanding and effective teachers and leaders, and turning around the lowest performing schools. Because New Mexico is such a multicultural state, with both rural and urban settings, it can serve as an important model for the rest of the country in learning how to implement the key reforms you are championing.

I am proud of the dedicated team that has collaborated in putting together New Mexico's Race to the Top proposal. We have taken the lessons learned from the first round of the Race To The Top competition, engaged in the critical discussions around the four assurances, and developed a strong proposal that will be the blueprint for New Mexico's education reform over the next decade. I strongly urge you to fund our proposal. Your support will allow New Mexico to continue on the path to ensuring that all students receive a top-quality education, and that New Mexico can serve as a national model for education reform, improving the future of our children, our state and our nation.

Sincerely,

A handwritten signature in cursive script that reads "Bill Richardson". The signature is written in black ink and is positioned above the printed name and title.

Bill Richardson  
Governor of New Mexico

BR/fl



**Office of the Governor**  
State Capitol • Room 400  
Santa Fe, New Mexico 87501

Secretary Arne Duncan  
Secretary of Education  
U.S. Department of Education  
400 Maryland Avenue SW  
Washington, DC 20202-0008



May 22, 2010

To the Honorable Arne Duncan  
Secretary  
US Department of Education  
400 Maryland Avenue, SW  
Washington, DC 20202

Dear Mr. Secretary:

I am writing to express my support for New Mexico's application for the Race to the Top Fund on behalf of the American Federation of Teachers New Mexico (AFT NM). I was very involved in the development of the ideas that are in this proposal. Throughout the process, I shared my experiences with my members and they were very engaged and concerned in providing guidance that I could carry to the RTTT meetings. Those ideas and concerns were not only considered but incorporated throughout the document.

My members believe that they should be held accountable for the work that they produce but that they should be judged fairly. They believe that with meaningful assessments, a strong curriculum and appropriate tools and resources that they and their students can be successful in the classroom. In addition, this document is inclusive of our participation throughout its implementation.

In closing, I reiterate that this document not only includes my union's input but that the input was valued and respected. I look forward to continuing work with the NM PED in the implementation of the grant. It is important that achieving high academic outcomes for children can only be done through mutual respect and collaboration by all stakeholders.

I welcome any questions that the review committee may and I can be contacted at 505-266-6638 at work or by cell phone at 505-681-2758.

Sincerely,

Christine Trujillo  
President  
AFT NM

An affiliate of the  
American Federation  
of Teachers, AFL-CIO

---

Higher Education  
PSRP  
Teachers

---

MAIN OFFICE  
8009 Mountain Road Place NE  
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[nm.aft.org](http://nm.aft.org)

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Christine Trujillo  
PRESIDENT

Kathy Chavez  
EXECUTIVE VICE PRESIDENT

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TREASURER

Elizabeth Roth  
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May 7, 2010 [www.ahcnm.org](http://www.ahcnm.org)

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

Dear Secretary Duncan:

We write to express strong support for New Mexico's Race to the top (RTTT) grant application. New Mexico has worked very hard over the past months to review the state's educational needs and to submit a plan to implement key innovations to public education in our state.

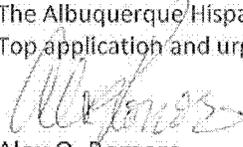
New Mexico is a state that faces significant educational challenges. Only 6 in 10 public school students in our state graduate from high school on time, and many of those who do graduate find that they are unprepared for college-level academics. Our student population is disproportionately low-income, rural, and English Language Learner.

New Mexico's application was developed by New Mexico Secretary of Education Veronica C. García in close collaboration with Governor Bill Richardson, school districts, teachers, industry leaders, education experts, and nonprofit organizations. The application's vision of reform proposes significant improvements in the state's delivery of education services.

For example, RTTT funding would support the implementation of Common Core education standards in New Mexico by aligning curriculum and developing formative assessments aligned to these standards and making them available to all turnaround schools and an additional 30 high-need schools. It would make education data more accessible to student and parents, who could assert more control over their own education through a web-based career pathways resource. It would establish a "Teacher and Principal Effectiveness Task Force" to develop multiple measures of teacher and principal effectiveness including student performance. The application also strengthens STEM education in New Mexico, consistent with President Obama's call for the United States to return to global leadership in STEM fields.

These and many other reforms contained within New Mexico's Race to the Top application are closely aligned with your and President Obama's expectations for the program: the planning process has brought together key education stakeholders to think boldly and creatively about education reform, and New Mexico's plan proposes innovations to eliminate structural barriers to academic achievement for all students in our state.

The Albuquerque Hispano Chamber of Commerce strongly supports New Mexico's Race to the Top application and urges the U.S. Department of Education to give it every due consideration.

  
Alex O. Romero  
CEO/President  
Albuquerque Hispano Chamber of Commerce

"MEMBERSHIP MEANS BUSINESS"



**NEW MEXICO**  
AMERICA'S LAND  
OF ENCHANTMENT



May 18, 2010

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

Dear Secretary Duncan:

I am writing you today to express strong support for New Mexico's Race to the Top (RTTT) grant application. New Mexico has worked very hard over the past months to review the state's educational needs and to submit a plan to implement key innovations to public education in our state.

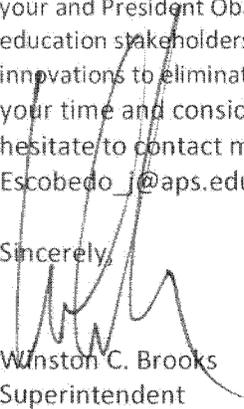
As the Superintendent of the state's largest school district, I know the challenges that the state has in educating such a diverse population. Albuquerque Public School has more than 90,000 students, which is one-third of all the students in the state of New Mexico. We are in a unique situation to improve the educational opportunities of a large number of students and the RTTT grant will help make that possible.

New Mexico's application was developed by New Mexico Secretary of Education Veronica C. García in close collaboration with Governor Bill Richardson, school districts, teachers, industry leaders, education experts, and nonprofit organizations. The application's vision of reform proposes significant improvements in the state's delivery of education services.

For example, RTTT funding would support the implementation of Common Core education standards in New Mexico by aligning curriculum and developing formative assessments aligned to these standards and making them available to all turnaround schools and an additional 30 high-need schools. It would make education data more accessible to student and parents, who could assert more control over their own education through a web-based career pathways resource. It would establish a "Teacher and Principal Effectiveness Task Force" to develop multiple measures of teacher and principal effectiveness including student performance. The application also strengthens STEM education in New Mexico, consistent with President Obama's call for the United States to return to global leadership in STEM fields.

These and many other reforms contained within New Mexico's Race to the Top application are closely aligned with your and President Obama's expectations for the program: the planning process has brought together key education stakeholders to think boldly and creatively about education reform, and New Mexico's plan proposes innovations to eliminate structural barriers to academic achievement for all students in our state. I appreciate your time and consideration of the grant. If you should have any further questions please do not hesitate to contact my special assistant, Joseph Escobedo at 505-362-6847 or by email at [Escobedo\\_j@aps.edu](mailto:Escobedo_j@aps.edu).

Sincerely,

  
Winston C. Brooks  
Superintendent



Tuesday, May 26, 2010

To Whom it may concern:

On behalf of the entire Board of Directors of the New Mexico Business Roundtable, we are excited to lend our total and complete support to New Mexico's application for "ARRA Race To The Top" funding.

Over the past eleven years the New Mexico Business Roundtable has served as the statewide voice for business in New Mexico in support of education reform. We have strategically been involved in every aspect of these transformational reforms through research, public policy support and "hands on" and "sleeves rolled up" work. I am not aware of another state where the private sector has taken such an enormous and collective role in education reform.

There are a number of reforms which have been put in place since the late 1990's and these reforms have seen significant impact on our state's education system. Even bolder steps have been taken since 2003 with game changing legislation and constitutional amendments enacted in a state which rarely has been in the forefront of educational innovation. It is imperative that these existing reforms remain in place and the race to the top in building a world class education system in New Mexico is fully realized.

The investment of "ARRA Race To The Top" funding is a crucial and wise investment in a state poised and ready to take education reform to the next level. Every aspect of our children's future from the aggressive building of our early childhood education initiatives to our college and career readiness work is being aligned into a true and distinct education system. The right stake holders are at the table, the essential foundation has been laid, and the time is now for New Mexico's children.

The opportunity for attaching these kinds of funds to these kinds of reforms is unprecedented and will have an impact far greater than the most creative and imaginable mind can conceive at the present. To give credible and serious consideration to New Mexico at this time is not only a wise and decisive investment, but also down right SMART!

Warmest Regards,

Larry Langley, President/CEO



530 Jefferson Street NE  
Albuquerque, New Mexico 87108  
505.262.2657, fax 505.266.1967

ELLEN BERNSTEIN  
PRESIDENT

May 24, 2010

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

Dear Secretary Duncan:

During the first round of the Race to the Top, I wrote about my concerns with both the process and the product. During Round 2, neither was an issue. The conversations in Round 2 were substantive and the time was taken to reach consensus. The written document reflects the consensus decisions made.

I participated in the subgroup for (D) *Great Teachers and Leaders*, in particular D2, *Improving teacher and principal effectiveness based on performance*. In that work, I brought up a few points about teacher evaluation that I would like to make here. First, counter to the myth that most teachers are not up to the task, the opposite is true—most teachers are good to excellent and are craving feedback that will help them to continuously progress in their professional ability. I believe that our current evaluation system is significantly lacking to accomplish that task. Improvement is imperative if we are to truly have great teachers and leaders. A Peer Assistance and Review program (which we have jointly negotiated with the school district in Albuquerque) is sorely needed for those teachers who are actually not doing a good job. Unfortunately, our conversations did not center on the need for the evaluation system to be improved; rather, that the definition of improvement for purposes of the grant would be narrowed to the inclusion of student growth data. I have expressed the wish that our focus on teacher and principal evaluation include work on the entire system.

The teachers I represent do not hesitate to be held accountable for the outcomes of their work, as long as the measurement of student learning actually reflects growth as well as the complexity inherent in the act of teaching and the equally complex variable of student learning.

In New Mexico, we have agreed to the following assurances for the educational community. The assurances add integrity and thought to the work at hand.

- 1) New Mexico will strengthen the link between teacher/principal evaluation and student growth, making it a significant factor in the annual evaluation process currently included in the three-tier licensure system for all teachers in all content areas.

- 2) While significant, student growth will not be the only factor in the teacher and principal evaluation system.
- 3) The New Mexico Public Education Department is participating in the National Center for Education & Economy (NCEE) and Smarter Balanced Assessment Consortium to transition to Common Core Standards and transition to newer, fewer, and better assessments of student growth. Under this commitment to transition, the current standards-based assessment will not be the tool used to measure student growth.
  - a. New assessments will be grounded in a thoughtfully-integrated learning system of standards, curriculum, assessment, instruction, and teacher development.
  - b. Practitioners (teachers and principals) and other stakeholders (parents, community school boards, legislators, etc.) will be included in the evaluation system design.
  - c. Practitioners will be included in student assessment design.
  - d. Participation in the Smarter Balance Assessment Consortium is a commitment to the transition to multiple measures of student growth and teacher impact including, but not limited to:
    - i. Assessments conducted at multiple points in time
    - ii. Formative assessments
    - iii. Summative assessments
    - iv. Actual student work
- 4) Adoption and implementation of the common core standards, new assessments, and change to the three-tier teacher evaluation system is anticipated to take between 18 and 36 months.
- 5) The Race to the Top Grant will request funds to provide professional development and leadership development throughout the transitions to common core standards, newly aligned assessments, and expanded teacher evaluations.

I commend the State of New Mexico and our Secretary of Education, Veronica Garcia, for these 5 assurances. With them, teachers feel more comfortable that the outcomes of their work might be more fairly assessed and I can write this letter of support for Mexico's Round 2 application for the Race to the Top.

Sincerely,



Dr. Ellen Bernstein  
President, Albuquerque Teachers Federation



**STATE OF NEW MEXICO**  
**DEPARTMENT OF FINANCE AND ADMINISTRATION**  
**OFFICE OF EDUCATION ACCOUNTABILITY**

180 Bataan Memorial Building  
Santa Fe, New Mexico 87501  
(505) 476-1070  
[www.nmdfa.state.nm.us](http://www.nmdfa.state.nm.us)

**BILL RICHARDSON**  
GOVERNOR

**KATHERINE B. MILLER**  
CABINET SECRETARY

May 26, 2010

The Honorable Arne Duncan  
Secretary  
US Department of Education  
400 Maryland Ave SW  
Washington DC, 20202

Dear Secretary Duncan:

On behalf of the New Mexico Office of Education Accountability (OEA), I am writing to express my support for New Mexico's application for the Race to the Top fund.

The OEA also commits to working with the New Mexico Public Education Department to implement the New Mexico proposal.

The mission of the OEA is to provide an independent source of information about the progress of education reform; and to provide leadership assistance and problem solving support to the Governor, Legislature, educational agencies and citizens in their efforts to improve New Mexico's educational system.

According to statute [§9-6-15 NMSA 1978], the purpose of the OEA is to:

- provide an independent evaluation of the Assessment and Accountability Act and the School Personnel Act;
- review decision-making policies of schools and school districts relating to the recruitment and retention of school employees;
- verify the accuracy of reports of public school, school district, and state performance; and
- conduct studies of other states' efforts at assessment and accountability and other education reforms and report its findings to the Legislative Education Study Committee and the Legislative Finance Committee.

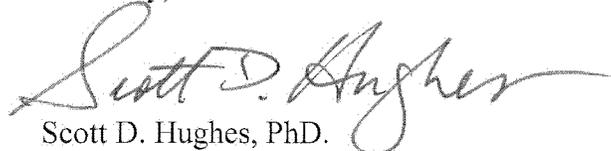
To that end, the OEA is committed to the implementation and study of the bold education reforms expressed in the New Mexico proposal. Over the last several years, OEA and the New Mexico Public Education Department have worked together to examine several critical aspects of education reform including:

- Ready for College: the college remediation rates for New Mexico high school graduates.
- An evaluation of the New Mexico Pre Kindergarten Program.
- An evaluation of the implementation of the New Mexico K-3 Plus extended school year program.
- Reviews of the status of educator quality (both teachers and leaders).

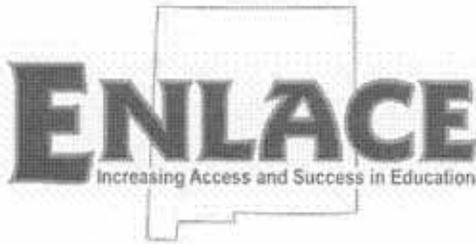
In addition, the OEA, in partnership with the NMPED has implemented the New Mexico Principal Support Network, a comprehensive training program for education leaders on the use of data to improve educational outcomes for students.

If you have any questions about this letter, or OEA's commitment to the New Mexico proposal, please don't hesitate to contact me, I can be reached by phone, 505-476-1070, or by email, **[scottd.hughes@state.nm.us](mailto:scottd.hughes@state.nm.us)**

Sincerely,

A handwritten signature in cursive script that reads "Scott D. Hughes". The signature is written in black ink and is positioned above the printed name and title.

Scott D. Hughes, PhD.  
Director



May 26, 2010

To the Honorable Arne Duncan  
Secretary  
US Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202

Dear Mr. Secretary:

As Executive Director of ENLACE New Mexico, I am writing to express my support for New Mexico's application for the Race to the Top Fund. ENLACE is a statewide collaboration of "gente" who represent the voices of underrepresented children and families—people who have not traditionally had a say in policy initiatives which have had direct impacts on their communities or their families. Programs centered on family and community engagement, student to student mentoring, institution of sound educational policies, development of culturally relevant curricula, professional development for teachers and many more encompass the very essence of what ENLACE New Mexico believes in. At the very heart of ENLACE New Mexico are our students and families. They form the foundation for our vision, our passion, our work, our core values, and our future. Giving life to their voice is what ENLACE New Mexico is all about.

ENLACE looks forward to working closely with the state to implement the goals and projects once the Race to the Top application is funded. Our close involvement with the community collaborative outlined in Section E of the proposal will provide for alignment of resources for teacher support, as well as parent and family support.

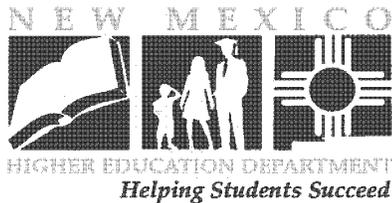
I believe that New Mexico's innovative proposal will further the work of improving student achievement across the state and provide comprehensive models for other states in the areas of achievement, assessment, P20 data systems and ample support for teachers and educational leaders.

Thank you for your continued support and I look forward to answering any questions that the review committee may have. I may be contacted by phone, (505) 277-1804.

Sincerely,

(b)(6)

Lawrence Roybal  
Executive Director  
ENLACE



**Letter of Support  
New Mexico's Round II Race to the Top Grant Application**

May 19, 2010

Veronica C. García, Ed.D.  
New Mexico Cabinet Secretary of Education

Dear Secretary Garcia:

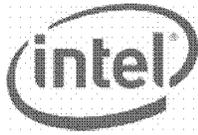
Thank you for facilitating the May 13 special meeting of our postsecondary Chief Academic Officers to address New Mexico's Round II application for Race to the Top grant funds. The purpose of this letter is to express the New Mexico Higher Education Department's full support of the application. I want to emphasize our commitment to the critical work called for in Section B3 of the grant, "...supporting the transition to enhanced standards and high-quality assessments" by developing a clear plan that would include alignment of high school exit criteria and college entrance requirements with the new standards and assessments; developing and disseminating high-quality instructional materials and assessments; delivering high-quality professional development; and, engaging in other strategies that translate the standards and assessment information into classroom practice for all students.

These are crucial elements in New Mexico's plan for a more fully realized P-20 system of education. Increasing the educational attainment of our people is vital to the future economic health of our state. Currently, due to the disconnect between high school graduation criteria and higher education entrance and placement requirements, we are not meeting our students' needs. My vision for a seamless P-20 system has at its foundation that student success is tied to many facets impacting a student's opportunities and path. Improved communication and understanding between K-12 criteria and higher education expectations is an important part of that foundation.

New Mexico is committed to the adoption and implementation of a statewide college placement policy framework that is inclusive, aligned with state standards, and systemic. It will be a tremendous accomplishment in the best interest of our students and will advance streamlining our students' educational experience. We are convinced that accurate and consistent communications regarding a student's understanding of his or her abilities upon graduation and the student's intended college or university's expectation of those abilities can help our teachers, counselors, parents, extended families and community members guide more of our students to success in college and career. I look forward to our continued collaboration on this very critical component of New Mexico's P-20 educational initiative.

Sincerely,

Viola Florez, Ed.D.  
New Mexico Cabinet Secretary of Higher Education



May 25, 2010

To the Honorable Arne Duncan  
Secretary  
US Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202

Dear Mr. Secretary:

I am writing to express my support for New Mexico's application for the Race to the Top Fund. Intel Corporation has been a member of the RTTT Leadership Team since last fall, providing guidance and input into the development of both Round 1 and Round 2 proposals. It is crucial to the future of New Mexico students that we are competitive and have the funding to allow our educational system to deal with the critical issues education faces.

Race to the Top is of particular importance to New Mexico as the state works diligently to improve educational outcomes for all students. The four core education reform areas of the Fund align with New Mexico's own goals of high standards and rigorous assessments for students, that provide critical information on student preparedness for success in higher education and the world of work; guarantee educators have the data they need to improve student achievement and academic success; provide all students access to world-class teachers and school leaders; and revamp our lowest performing schools for student success. Intel commends the State of New Mexico and the educational leaders for the high standards that they have put in place for the success of our students. The Race to the Top funding can help align and support the many successful reforms that are in place as well as work to address the challenges we face in our failing schools, our STEM competitiveness, and working to advance effective teachers and leaders for the 21<sup>st</sup> Century. Intel is very committed to align with these principles and this application.

I believe that New Mexico's innovative proposal will further the work of improving student achievement across the state and provide comprehensive models for other states in the areas of achievement, assessment, P20 data systems and ample support for teachers and educational leaders. Thank you for your continued support and I look forward to answering any questions that the review committee may have. I may be contacted by phone, 505-893-3725.

Sincerely,

A handwritten signature in black ink, appearing to read "Jami Grindatto".

Jami Grindatto  
Corporate Affairs Manager, Southwestern U.S. Region  
Intel Corporation, Rio Rancho, NM

May 7, 2010

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

Dear Secretary Duncan:



KNME wishes to express our strong support for New Mexico's Race to the top (RTTT) grant application. KNME is committed, as a partner with the New Mexico Public Education Department, to supporting teacher improvement by providing teacher professional development opportunities and quality digital media for classroom use. We are dedicated to helping achieve the transformational goals that are embedded in the state of New Mexico's application and we will use our rich human and media resources to help the vision in this application become a reality.

The planning process has brought together key education stakeholders to think courageously and innovatively about education reform. New Mexico's plan proposes innovations to eliminate structural barriers to academic achievement for all students in our state.

KNME has been included in the planning for New Mexico's application as it was developed by New Mexico Secretary of Education Veronica C. García in close collaboration with Governor Bill Richardson, school districts, teachers, industry leaders, education experts, and other nonprofit organizations. We believe that the application's vision of reform proposes significant improvements in the state's delivery of education services.

For example, RTTT funding would support the implementation of Common Core education standards in New Mexico by aligning curriculum and developing formative assessments aligned to these standards. KNME's new Digital Learning Library service (now in beta testing) will be aligned by PBS to these National Standards making for more streamlined statewide integration of the repository's assets into curriculum.

The application strengthens STEM education in New Mexico, consistent with President Obama's call for the United States to return to global leadership in STEM fields. Public Television has a special interest in the enhancement of the STEM education goals. We have worked tirelessly to ensure that development of and access to educational media resources to support STEM education. We are building a repository in the KNME Digital Learning Library that will expand continually to meet the needs of the future workforce in New Mexico.

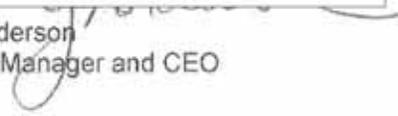
We are also working with state agencies to integrate KNME's new Digital Learning Library Service into the student data system called "Carve Your Path" which is vital to New Mexico's Race to the Top application. This will make education data and learning resources more accessible to student and parents, who can then assert more control over their own education through a web-based career pathways resource.

KNME will also contribute to teacher improvement and alternative licensure through our graduate level online professional development courses. Already established KNME programs that support early literacy and teacher technology training can be expanded to support the vision embedded in this application.

We feel that the new goals contained within New Mexico's Race to the Top application reflect the President's expectations for the program.

KNME urges the U.S. Department of Education to give this Race to the Top application every due consideration.

(b)(6)

  
Polly Anderson  
General Manager and CEO



**Community Programs Office**

P.O. Box 1663, MS A117  
Los Alamos, New Mexico 87545  
505-665-4400/Fax 505-665-4411

*Date:* May 27, 2010  
*Refer To:* CPO-10-006

Arne Duncan  
Secretary of Education  
U.S. Department of Education  
400 Maryland Ave. SW  
Washington, DC 20202

Dear Secretary Duncan,

I completely and fully support New Mexico's Race to the Top application and request that you favorably consider funding this proposal. The goals and objectives in this application align well with Los Alamos National Laboratory's (LANL) long-standing math and science education initiatives, which are designed to engage students, educators, families, and communities-at-large in the discovery, excitement, and understanding of science.

New Mexico's Race to the Top application will specifically complement LANL's existing efforts by helping to expand strategic support for science, technology, engineering, and mathematics (STEM) teacher professional development programs, implement STEM courses in high schools and college, raise public awareness of STEM initiatives, and develop a better understanding of STEM principles critical to building the future workforce of New Mexico in general and the Los Alamos National Laboratory in particular.

As one of the largest employers in the state of New Mexico, LANL is committed to partnering with the State to achieve shared education and workforce development objectives in a manner that few other organizations can. By working together to inspire and maintain a statewide interest in K-20 science, technology, engineering, and mathematics, New Mexico and LANL can truly become more nationally and globally competitive.

Sincerely,

(b)(6)

Dr. Kurt A. Steinhaus,  
Director, Community Programs Office

KS:rlb

cy: IRM-RMMSO, A150  
CPO File

## Latino/Hispano Education Improvement Task Force

POB 7487

Albuquerque, NM 87194

505.730.1899 • Email: armas@swcp.com

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May 25, 2010

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

Dear Secretary Duncan:

We write to express strong support for New Mexico's Race to the top (RTTT) grant application. New Mexico has worked very hard over the past months to review the state's educational needs and to submit a plan to implement key innovations to public education in our state.

New Mexico is a state that faces significant educational challenges. Only 6 in 10 public school students in our state graduate from high school on time, and many of those who do graduate find that they are unprepared for college-level academics. In addition, the achievement gap between students of color and whites indicates not only inequitable treatment and results on the basis of race, but a disproportionate lessening of opportunity for Latinos, as the majority student group, and others who are not white. Our student population is disproportionately low-income, rural, and English Language Learner.

New Mexico's application was developed by New Mexico Secretary of Education Veronica C. Garcia in close collaboration with sectors and stakeholders across the state including grass roots organizations such as our own. The application's vision of reform proposes significant improvements in the state's delivery of education services.

With particular regard to the mission and interests of the Latino/Hispano Education Improvement Task Force, we find the kinds of reforms proposed by New Mexico's Race to the Top (RTTT) grant application to be wholly consistent with what we believe needs to happen if the educational achievement gap between Latinos, and other students of color, and whites is to be "*eliminated*". The grant application's call for reorganization of New Mexico's Public Education Department (PED) based on input from all stakeholders, training of requisite personnel and community leaders, programmatic interventions and leveraging resources both within and outside the educational system parallel the Task Force's well-stated demand for greater collaboration and accountability of all.

The many other reforms contained within New Mexico's Race to the Top application are closely aligned with your and President Obama's expectations for the program: the planning process has brought together key education stakeholders to think boldly and creatively about education reform, and New Mexico's plan proposes innovations to eliminate structural barriers to academic achievement for all students in our state.

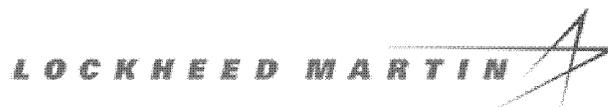
Our Task Force has developed a close working relationship with the NM PED on a number of initiatives that have included the establishment of an office for Hispanic education and therefore strongly supports New Mexico's Race to the Top application and urges the U.S. Department of Education to give it every due consideration.

Sincerely,

(b)(6)

Jose Armas, Ph.D.  
Co-Chair for the Task Force

Lockheed Martin Corporation  
6801 Rockledge Drive Bethesda, MD 20817  
Telephone 301-897-6867 Facsimile 301-897-6815  
E-mail: ray.o.johnson@lmco.com



**Dr. Ray O Johnson**  
Senior Vice President & Chief Technology Officer

May 26, 2010

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

Dear Secretary Duncan:

Lockheed Martin wishes to express strong support for New Mexico's Race to the Top (RTTT) application. As you know, Sandia National Laboratories, which is operated by Lockheed Martin, is located in New Mexico, and we have been working closely with the State of New Mexico through both the Laboratory and our partnership with Innovate-Educate NM.

There are many reforms contained in New Mexico's RTTT application that we believe are critical to the future success of Sandia National Laboratories and Lockheed Martin Corporation. As the largest aerospace and defense contractor in the world, we require an educated, well-prepared workforce which is primarily comprised of U.S. citizens. We believe that if New Mexico were to receive a RTTT grant, we could partner with the State to begin addressing the tremendous shortage of workers that the aerospace industry is facing.

Projections show that roughly a quarter of our country's aerospace engineers are eligible for retirement within one year. When looking at the number of students entering degree programs related to Science, Technology, Engineering, and Math (STEM), and comparing those numbers to the projected demand from 2008 to 2020, it is apparent that there will be a significant shortage of talent in the nation. Therefore, addressing the STEM shortage "now" is critical. In the New Mexico Race to the Top application, New Mexico proposes a sustainable and systemic solution to begin a full-scale implementation of STEM programs that reach all districts in the State.

The RTTT funding will allow the State to address the critical components of the application including aligning the State's curriculum with the Common Core Standards, using assessment data for effective teaching and learning, executing a well-defined strategy for school turn-around that involves a NASA gaming component, and addressing STEM programs, which is an important priority closely aligned with the goals of your office and the President's.

We hope that you will fully consider funding the New Mexico RTTT application, and we commit to working closely with advancing New Mexico, once funded, to advance STEM programs statewide.

Sincerely,

A handwritten signature in black ink, appearing to read "Ray O Johnson", with a long horizontal flourish extending to the right.

Dr. Ray O Johnson



**Community Programs Office**

P.O. Box 1663, MS A117  
Los Alamos, New Mexico 87545  
505-665-4400/Fax 505-665-4411

*Date:* May 27, 2010  
*Refer To:* CPO-10-006

Arne Duncan  
Secretary of Education  
U.S. Department of Education  
400 Maryland Ave. SW  
Washington, DC 20202

Dear Secretary Duncan,

I completely and fully support New Mexico's Race to the Top application and request that you favorably consider funding this proposal. The goals and objectives in this application align well with Los Alamos National Laboratory's (LANL) long-standing math and science education initiatives, which are designed to engage students, educators, families, and communities-at-large in the discovery, excitement, and understanding of science.

New Mexico's Race to the Top application will specifically complement LANL's existing efforts by helping to expand strategic support for science, technology, engineering, and mathematics (STEM) teacher professional development programs, implement STEM courses in high schools and college, raise public awareness of STEM initiatives, and develop a better understanding of STEM principles critical to building the future workforce of New Mexico in general and the Los Alamos National Laboratory in particular.

As one of the largest employers in the state of New Mexico, LANL is committed to partnering with the State to achieve shared education and workforce development objectives in a manner that few other organizations can. By working together to inspire and maintain a statewide interest in K-20 science, technology, engineering, and mathematics, New Mexico and LANL can truly become more nationally and globally competitive.

Sincerely,

(b)(6)

Dr. Kurt A. Steinhaus,  
Director, Community Programs Office

KS:rlb

cy: IRM-RMMSO, A150  
CPO File



May 14, 2010

Honorable Secretary Arne Duncan:

I have composed this letter to show my support for the New Mexico Public Education Department's (NMPED) efforts to secure a Race to the Top grant award for the state of New Mexico. New Mexicans have long been aware of the challenges that our state faces in providing first-class, quality education for all of our children and I believe that the efforts of the NMPED through this Race to the Top application represents a significant attempt to meet those challenges.

In the past, attempts to bring innovation, efficiency and consistency to our educational efforts statewide have not always succeeded in all of the ways that were envisioned. It is precisely because of these previous marginally successful attempts that this particular effort at bringing significant change to our educational systems has been so important. In preparation for this application, our Public Education Department has shown a great deal of leadership in reaching out to communities, practitioners, students and others to develop support and recommendations for what is now being proposed. More dynamic training and preparation for teachers, investing heavily in a burgeoning charter school movement and making greater commitments to partner and community involvement are just some of the many ways that New Mexico is looking to match our sense of urgency around bettering our educational system with the resources, manpower and innovation that is needed to make us successful.

It is my intention to fully support this effort because of my strong belief in the goal that every child in New Mexico deserves a first-rate, first-class high quality education. I understand that there is a need for more comprehensive and coordinated approaches to how we educate and support our students, and I believe this application serves as an example of much of what is required to meet each of our students where they are and get them into the spaces and situations that will enable them to succeed.

I understand that this initiative will mean a great deal to the residents of New Mexico, and present a great deal of challenge to the community, students, parents and the NMPED. It is with a great sense of urgency and sincerity that I commit myself to this statewide effort to ensure that New Mexico continues to show great character and leadership in creating effective ways to support students all over New Mexico. I am encouraged and grateful for this effort and I certainly believe that, if funded, the proposed actions to be taken in this application will yield many great results. I hope that this application is given very serious consideration, as the need for positive, sustained action in New Mexico is imperative.

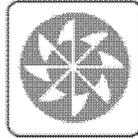
If you have any questions or need any additional information please feel free to contact me at any time.

Sincerely,

(b)(6)

Everette W. Hill, MA, MFCT  
Executive Director, New Mexico Forum for Youth in Community  
924 Park Avenue SW  
Albuquerque, NM 87105  
(505) 821-3574  
[www.nmforum.org](http://www.nmforum.org)

NEW MEXICO



STATE LIBRARY

5-26-2010

To the Honorable Arne Duncan  
Secretary  
US Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202

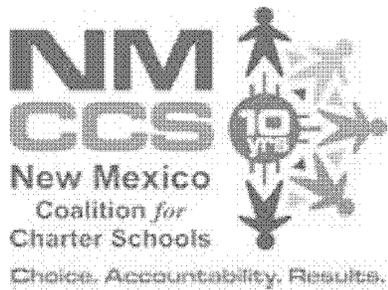
Dear Mr. Secretary:

The State's goal of education is to enable the success of each and every student through the combined effort of the student, the family, the teachers and principals, the districts and schools, the community, and the state. When families and communities are deeply engaged, when teachers and principals are well-prepared, and when the state is supportive, then students are more likely to be successful.

As the head of the New Mexico State Library, we believe that empowering communities to strengthen and support their local schools is essential. We also believe that public libraries have an important support role to play in this effort. To that end, we work with all 91 public and tribal libraries in the state to make them a stronger community resource. Public libraries contribute in a significant way to education; 79% of public libraries list providing access to educational resources and databases to K-12 students as their most critical role. This role often reflects both community needs and expectations.

We hope that you will fund New Mexico's Race to the Top application. The proposed work plan will contribute to stronger communities and students who become viable workers. The State Library looks forward to working with the students of New Mexico to help in this effort.

Susan Oberlander  
State Librarian  
505 476-9762  
[susan.oberlander@state.nm.us](mailto:susan.oberlander@state.nm.us)



May 27, 2010

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

Dear Mr. Secretary:

I am writing to express my support for New Mexico's application for the Race to the Top Fund. I believe the state's charter schools are leading the way for much of the reform this application hopes to implement.

Race to the Top is of particular importance to New Mexico as the state works diligently to improve educational outcomes for all students. The four core education reform areas of the application align with New Mexico's state goals of high standards and rigorous assessments for all students. This application commits to student preparedness for success in higher education and the world of work; helps educators have the data they need to improve student achievement; provides all students access to world-class teachers and school leaders; and revamps our lowest performing schools through turn-around efforts.

It is my hope that New Mexico's proposal will further the work of improving student achievement across the state and provide comprehensive models for other states in the areas of achievement, assessment, P20 data systems and ample support for teachers and educational leaders.

Thank you for your continued support and I look forward to answering any questions that the review committee may have. I may be contacted by phone, 505-842-8203.

Sincerely,

Dr. Lisa S. Grover  
CEO  
The New Mexico Coalition for Charter Schools





**NEW MEXICO COMMUNITY FOUNDATION**

Investing in New Mexico's Communities and Their Greatest Asset...People

May 13, 2010

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

To the Honorable Secretary Duncan;

I am writing to express support of New Mexico's application for the federal Race to the Top funds. We understand that our State's Public Education Department, under the leadership of Secretary Veronica Garcia, seeks a grant from the U.S. Department of Education to address four commitments to the New Mexico statewide community: 1) continue the state's current rigorous academic standards, something for which New Mexico is already recognized; 2) to improve instruction, accountability, and transparency by expanding an existing and recognized longitudinal data system; 3) link student academic growth to teacher/principal evaluations, while also providing high quality professional development to ensure success; and 4) taking a more assertive role in improving the state's persistently lowest-achieving schools through teacher summer boot camps and implementing researched based strategies and programs.

We agree that Race to the Top represents an incredible opportunity to engage fundamental reforms and innovations that will accelerate student achievement and turn around low performing schools in New Mexico. The New Mexico Community Foundation is itself focused on advancing positive school climate and ensuring student success through its Elev8 New Mexico Initiative. We believe that preparing students for high school graduation, college, and career presents the best pathway to success.

We, therefore, fully support Secretary Veronica Garcia and the Race to the Top Design Team in submitting this application, and for the bold and positive change that it could bring to our state.

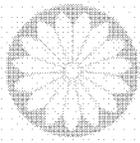
(b)(6)

Jenny Parks  
President

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NEW MEXICO DEPARTMENT OF  
**CULTURAL AFFAIRS**

5/27/2010

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

Dear Mr. Secretary:

I am writing to offer the wholehearted support of the New Mexico Department of Cultural Affairs (DCA) for New Mexico's forward-looking *Race to the Top* proposal. We look forward to participating in the implementation of this exciting plan to transform education in our state, specifically with Innovate-Educate and the Math and Science Bureau to advance STEM education statewide.

DCA is one of the most ambitious state cultural agencies in the nation, comprising eight museums and six historic monuments, and divisions of art, historic preservation, archaeology, and library programs. We have a strong commitment to education as an essential element of our core mission, which is to preserve, foster, and interpret New Mexico's diverse cultural, artistic, and scientific heritage. Participation in *Race to the Top* is aligned with one of our top strategic goals: to maximize education and outreach.

As providers of informal education, cultural institutions have a leadership role to play in the successful transformation of the formal educational system. *Race to the Top* offers a golden opportunity to develop new and lasting partnerships between New Mexico's educational and cultural institutions that will increase the impact of informal education on formal education. Quite simply, we cannot afford to pass up this opportunity.

The collections, information, and expertise housed in our museums, libraries, and archives are extremely valuable and largely untapped resources. Used creatively, they can become valuable assets in addressing the state's—and the nation's—dramatic demographic shifts and growing needs for culturally relevant educational opportunities that are engaging to today's diverse and technologically savvy students. Moreover, there is a growing body of scientific evidence that arts education is foundational to academic achievement. This research suggests that the arts have a positive impact on reading and math test scores and also help to develop IQ, cognition, attention, and self-control, as well as to level the playing field for students from low socioeconomic backgrounds and with limited English proficiency.

Four years ago, Governor Bill Richardson and I established a partnership between DCA and the Media Arts Department at New Mexico Highlands University (NMHU) in Cultural Technology, the emerging field at the intersection of digital media and cultural content. This unique partnership combines academic study with professional internships, giving DCA the benefit of a cadre of faculty and students capable of providing us with assistance in using innovative technologies and new forms of communication to extend the educational benefit of our programs beyond museum walls. The two people on my staff in charge of administering this partnership are the DCA web manager and the director for media projects. As part of our commitment to New Mexico's *Race to the Top* initiative, I am designating these individuals to lead our implementation team in the following activities:

- Connecting collections and culture to classrooms: produce interactive virtual exhibits, curriculum enhancements, and educational resources developed by our top museum educators, aligned with state STEM standards and benchmarks; make them accessible online, along with a comprehensive catalog of publically-available museum education programs, via a redesign of the website [www.museumeducation.org](http://www.museumeducation.org); and provide professional development opportunities for educators in how to access and use museum resources in the classroom.
- Coordinating the participation of DCA divisions, community-based museums, and public libraries in the *Community Engagement Collaboratives*: work closely with the *Community Engagement Collaboratives* throughout the State to align and scale museum resources (including virtual resources) to the communities targeted in the proposal; implement the *New Mexico Space Trail* project; develop other similar projects based on archaeology, computational science, and natural science.

New Mexico's cultural institutions are positioned to provide educators, classroom students, and lifelong learners with real world STEM experiences that reconnect them to the human spirit of innovation and inventiveness that has characterized the people who have inhabited our region from ancient times to the present day. Through commitment, collaboration, and creativity, I believe that New Mexico's *Race to the Top* will be one of the most successful in the nation.

Sincerely,



Stuart A. Ashman  
Cabinet Secretary  
New Mexico Department of Cultural Affairs

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

May 19, 2010



Cynthia A. Gustke  
NMFPIAC Executive Chair Person  
4501 Indian School Rd., Suite 203  
Albuquerque, NM 87110  
[caustke@cesdp.nmhu.edu](mailto:caustke@cesdp.nmhu.edu)  
505-440-9785

Dear Secretary Duncan:

The New Mexico Family/Parent Involvement Advisory Council (NMFPIAC), supports New Mexico's Race to the Top (RTTT) grant application. The NMFPIAC was established four years ago to serve in an advisory role to the NM Public Education Department (NM PED). We support NM PED's efforts to address and improve school-family partnerships, carefully review the state's educational needs, and submit suggestions to implement key innovations to public education.

New Mexico is a state that faces significant educational challenges. Only 6 in 10 public school students in our state graduate from high school on time, and many of those who do graduate find that they are unprepared for college-level academics. Our student population is disproportionately low-income, rural, and English Language Learners.

New Mexico's application was developed by New Mexico Secretary of Education Dr. Veronica C. García in close collaboration with Governor Bill Richardson, school districts, teachers, industry leaders, education experts, and nonprofit organizations. The application's vision of reform proposes significant improvements in the state's delivery of education services.

RTTT funding would support the implementation of Common Core education standards in New Mexico by aligning curriculum and developing formative assessments aligned to these standards and making them available to all turn around schools and an additional 30 high-need schools. It would make education data more accessible to students and parents, who could assert more control over their own education through a web-based career pathways resource. It would establish a "Teacher and Principal Effectiveness Task Force" to develop multiple measures of teacher and principal effectiveness including student performance. The application also strengthens STEM education in New Mexico, consistent with President Obama's call for the United States to return to global leadership in STEM fields.

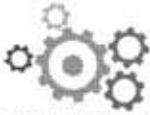
The NMFPIAC's guiding principles emphasize a shared responsibility among educators, families, communities and state and federal level advocates to ensure quality programs and resources for all school communities. Our guiding principles on school-family partnerships and reforms contained within New Mexico's Race to the Top application are closely aligned with your and President Obama's expectations for the program. The planning process has brought together key education stakeholders to think boldly and creatively about education reform, and New Mexico's plan proposes innovations to eliminate structural barriers to academic achievement for all students in our state. The application includes plans to develop a school support alliance that includes pre k-higher education and community organizations such as those actively involved in the NMFPIAC so that the state and local communities can take an assertive role in supporting the turnaround of persistently low achieving schools.

The NMFPIAC urges the U.S. Department of Education to give the New Mexico RTTT application careful consideration.

We will continue to work in an advisory role to the NM PED to support all aspects of the grant that address effective practices for promoting our student's social, emotional, physical, and intellectual development.

*Cynthia Gustke*

New Mexico Family/Parent Involvement Advisory Council Executive Chair Person



NEW MEXICO LEADERSHIP INSTITUTE

May 26, 2010

Dear Sirs:

I would like to express my unequivocal support for the New Mexico Race to the Top grant application.

The New Mexico Leadership Institute (NMLI) has a strong partnership with school districts, the five state universities, three state agencies, charter schools and numerous professional organizations. We stand ready to leverage these partnerships to engage in the work contained in the New Mexico Race to the Top grant application.

The New Mexico Public Education Department and the NMLI have worked together to design and deliver technical assistance and support to district and school leaders deeply engaged in school turnaround work. We jointly delivered a series of twelve webinars on topics ranging from school board relations to selecting a turnaround principal. We sponsored a team of fourteen NM leaders to travel to a nationally recognized turnaround district to learn from our colleagues and we created a website for our turnaround leaders to access research, documents and the archived webinars.

We stand ready to expand our partnership to strengthen professional development for leaders in New Mexico and to provide ongoing support as they engage in all aspects of improving outcomes for children.

Sincerely,

(b)(6)

Linda M. Paul, Ed.D.  
Executive Director

---

NEW MEXICO LEADERSHIP INSTITUTE  
MSC05 3040  
1 UNIVERSITY OF NEW MEXICO  
ALBUQUERQUE, NM 87131

505.277.0182  
FAX: 505.277.0044



New Mexico Learning Network Program  
Box 30001, msc 3AT  
Las Cruces, NM 88003

Email: bormand@nmsu.edu  
Phone: (575) 646-1949 | Fax: (575) 646-2176

Date : May 10, 2010  
To : Round 2 Race-To-The-Top (RTTT) Grant Application Reviewers  
From : Dr. Brian Ormand, (b)(6)  
Director, NM Learning Network Program  
Subject : Letter of support for New Mexico RTTT Round 2 grant application

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I am happy to write a letter of support for the Race-To-The-Top (RTTT) grant proposal (round 2) being submitted by the state of New Mexico. The plan in this proposal includes the following goals.

- Advance the adoption and implementation of Standards and Assessments
- Extend Data Systems to Support Instruction
- Further develop and implement Great Teachers Great Leaders initiative
- Turning Around the Lowest-Achieving Schools

To help accomplish the goals of this proposal, the state has an excellent eLearning support system. If this grant is funded, Innovative Digital Education And Learning in New Mexico (IDEAL-NM) will allow the state to reach all schools in the state with professional development, and provide a system for sharing many other resources. In its relative short existence since fall 2009, support from IDEAL-NM has already been requested by over two thirds of the school districts to provide resources including online courses to supplement student needs, allows sharing of teachers and digital content, deploys STEM resources, and provides advanced online tools that help all schools bridge the digital divide. IDEAL-NM garnered a ranking of #3 in the nation for its policy and practice, and positions New Mexico to better accomplish the goals of RTTT.

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

Dear Secretary Duncan:

We write to express strong support for New Mexico's Race to the top (RTTT) grant application. New Mexico has worked very hard over the past months to review the state's educational needs and to submit a plan to implement key innovations to public education in our state.

New Mexico is a state that faces significant educational challenges. Only 6 in 10 public school students in our state graduate from high school on time, and many of those who do graduate find that they are unprepared for college-level academics. Our student population is disproportionately low-income, rural, and English Language Learner.

New Mexico's application was developed by New Mexico Secretary of Education Veronica C. García in close collaboration with Governor Bill Richardson, school districts, teachers, industry leaders, education experts, and nonprofit organizations. The application's vision of reform proposes significant improvements in the state's delivery of education services.

For example, RTTT funding would support the implementation of Common Core education standards in New Mexico by aligning curriculum and developing formative assessments aligned to these standards and making them available to all turnaround schools and an additional 30 high-need schools. It would make education data more accessible to student and parents, who could assert more control over their own education through a web-based career pathways resource. It would establish a "Teacher and Principal Effectiveness Task Force" to develop multiple measures of teacher and principal effectiveness including student performance. The application also strengthens STEM education in New Mexico, consistent with President Obama's call for the United States to return to global leadership in STEM fields.

These and many other reforms contained within New Mexico's Race to the Top application are closely aligned with your and President Obama's expectations for the program: the planning process has brought together key education stakeholders to think boldly and creatively about education reform, and New Mexico's plan proposes innovations to eliminate structural barriers to academic achievement for all students in our state.

New Mexico's congressional delegation strongly supports New Mexico's Race to the Top application and urges the U.S. Department of Education to give it every due consideration.

Sincerely,

Mercedes Sandoval  
New Mexico PTA, President  
3315 Louisiana Blvd. NE  
Albuquerque, NM 87110  
nmpta@nmpta.org  
505.881.0712

# New Mexico School Boards Association

**Joe Guillen, Executive Director**

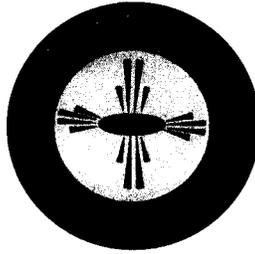
Email: [jguillen@nmsba.org](mailto:jguillen@nmsba.org)

**Carolyn Mole, Finance Director**

Email: [cmole@nmsba.org](mailto:cmole@nmsba.org)

**Elizabeth Egelhoff, Programs Director**

Email: [elizab@nmsba.org](mailto:elizab@nmsba.org)



**300 Galisteo Street, Suite 204**

**Santa Fe, New Mexico 87501**

Phone: (505) 983-5041

Fax: (505) 983-2450

Webpage: [www.nmsba.org](http://www.nmsba.org)

Email: [nmsba1@nm.net](mailto:nmsba1@nm.net)

May 27, 2010

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

Dear Secretary Duncan:

I am writing to express my support for New Mexico's second round application for the Race to the Top Fund. For the last several months, I represented the New Mexico School Boards Association on the RTTT Leadership Team, which gave input and guidance into the development of this proposal.

I feel very strongly that New Mexico's RTTT application truly reflects a coordinated effort that will provide landmark results and greatly improve our public education system in New Mexico.

Race to the Top is of particular importance to New Mexico as the state works diligently to improve educational outcomes for all students. The four core education reform areas of the Fund align with New Mexico's own goals of high standards and rigorous assessments for students, that provide critical information on student preparedness for success in higher education and the world of work; guarantee educators have the data they need to improve student achievement and academic success; provide all students access to world-class teachers and school leaders; and revamp our lowest performing schools for student success.

I believe that New Mexico's innovative proposal, if funded, will greatly enhance student achievement across the state and provide comprehensive models for other states in the areas of achievement, assessment, P20 data systems and ample support for teachers and educational leaders.

Thank you for your consideration and please feel free to contact me if you or your review staff has any questions. I may be contacted by phone at (505) 983-5041.

Sincerely,

Joe Guillen  
Executive Director

**Ramon Montaño**  
*President*

**Terry Martin**  
*President-Elect*

**Dion W. Sandoval**  
*Vice-President*

**Andrew J. Chávez**  
*Secretary-Treasurer*

**David Zimmerman**  
*Immediate Past-President*



**Bill Richardson**  
Governor

State of New Mexico  
**OFFICE OF AFRICAN AMERICAN AFFAIRS**

1015 Tijeras NW, Suite 102  
Albuquerque, New Mexico 87102  
Phone: (505) 222-9405  
Fax: (505) 222-9489  
Toll Free: (866) 747-6935  
<http://www.state.nm.us/hsd/oaaa>

**Dr. Harold Bailey**  
Executive Director

May 11, 2010

The Honorable Anne Duncan  
Secretary of Education  
U.S. Department of Education  
400 Maryland Avenue, S.W.  
Washington, DC 20202

Dear Secretary Duncan:

The New Mexico Office of African American Affairs strongly supports New Mexico's Race to the Top grant application. During the past months, New Mexico has worked extremely hard to review and assess the state's educational needs and to frame a plan to implement key innovations to public education in our state.

New Mexico faces significant educational challenges. Only six out of ten public school students graduate from high school within the appropriate time frame. Many of those students who do graduate lack proficiency and are not prepared for college level academics. Our student population is disproportionately low-income, rural, minority and English Language Learner.

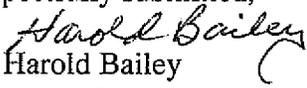
New Mexico's application was developed by State Secretary of Education Dr. Veronica C. Garcia in close collaboration with the Honorable Governor Bill Richardson, school districts, teachers, industry leaders, education experts, parents and non-profit organizations. The application's vision of reform proposes significant improvements in the state's delivery of education services. For example, RTTT funding would support the implementation of Common Core Education Standards of New Mexico by aligning curriculum and developing formative assessments aligned to these standards and making them available to all turnaround schools and an additional thirty high-need schools. It would make education data more accessible to students and parents, who could assert more control over their own education through web-based career pathways resource. Additionally, it would establish a "Teacher and Principal Effectiveness Task Force" to develop multiple measures of teacher and principal effectiveness including student performance. The application also strengthens STEM education in New Mexico which is consistent with President Obama's call for the United States to return to global leadership in STEM fields.

**Unity and Purpose**

These and many other reforms contained within New Mexico's Race to the Top application are closely aligned with President Obama's and your expectations for the program: the planning process has brought together key education stakeholders to think boldly and creatively about education reform, and New Mexico's plan proposes innovations to eliminate structural barriers to academic achievement for all students in our state.

New Mexico's congressional delegation strongly supports New Mexico's Race to the Top application and urges the U.S. Department of Education to give it every due consideration.

Respectfully submitted,

  
Dr. Harold Bailey  
Executive Director

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

Dear Secretary Duncan:

We write to express strong support for New Mexico's Race to the top (RTTT) grant application. New Mexico has worked very hard over the past months to review the state's educational needs and to submit a plan to implement key innovations to public education in our state.

New Mexico is a state that faces significant educational challenges. Only 6 in 10 public school students in our state graduate from high school on time, and many of those who do graduate find that they are unprepared for college-level academics. Our student population is disproportionately low-income, rural, and English Language Learner.

New Mexico's application was developed by New Mexico Secretary of Education Veronica C. García in close collaboration with Governor Bill Richardson, school districts, teachers, industry leaders, education experts, and nonprofit organizations. The application's vision of reform proposes significant improvements in the state's delivery of education services.

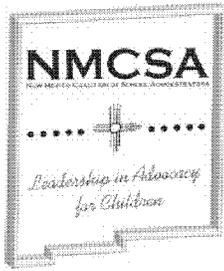
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These and many other reforms contained within New Mexico's Race to the Top application are closely aligned with your and President Obama's expectations for the program: the planning process has brought together key education stakeholders to think boldly and creatively about education reform, and New Mexico's plan proposes innovations to eliminate structural barriers to academic achievement for all students in our state.

New Mexico's congressional delegation strongly supports New Mexico's Race to the Top application and urges the U.S. Department of Education to give it every due consideration.

Sincerely,

Mercedes Sandoval  
New Mexico PTA, President  
3315 Louisiana Blvd. NE  
Albuquerque, NM 87110  
nmpta@nmpta.org  
505.881.0712



NEW MEXICO COALITION OF SCHOOL ADMINISTRATORS  
COLLEGE OF EDUCATION, MANZANITA HALL  
UNIVERSITY OF NEW MEXICO  
ALBUQUERQUE, NM 87131-1281  
phone 277-6986/ fax 277-5496 / nmcsa@unm.edu  
Tom Sullivan, Executive Director

---

May 31, 2010

31 May, 2010

To the Honorable Arne Duncan,  
Secretary  
US Department of Education  
400 Maryland Avenue, SW  
Washington, DC 20202

Dear Mr. Secretary:

We are writing to express our support for New Mexico's Race to the Top Fund. We represent the New Mexico Coalition of school administrators and the New Mexico School Superintendents' Association and have been a part of the RTTT Leadership Team, providing input and guidance into the development of this revised proposal.

We believe that the Race to the Top application represents the needs of our public schools and that the funds are needed to help our districts achieve their reform efforts. We believe that the strong focus on teacher performance linked to student achievement will help us attain a more coordinated effort to improve education for all students in New Mexico.

Race to the Top is of particular importance to New Mexico as the state works to implement the common standards, utilize longitudinal data to help students plan their school career through the Carve your Path on-line tool; and through the newly initiated New Mexico Leadership Institute, provide better preparation, training and support to school principals.

New Mexico is at a critical juncture in making many improvements and implementing initiatives that have been proven to work with our diverse population of learners. Teachers and principals need the support that can be provided through the RTTT proposal in order to make reform efforts pay off in the form of increased student achievement. We hope that the review committee can see the great number of positive steps being taken to improve education in our state.

Thank you for your continued support and we look forward to working with the other leaders in our state to bring this plan and proposal to fruition. Please feel free to contact us by phone at 5050-277-6986.

Sincerely,

Tom Sullivan, Executive Director

Dr. Gloria O. Rendon, Leadership Dev. Coordinator





SANTA FE INSTITUTE

May 26, 2010

Dear Governor Richardson and Secretary Garcia,

On behalf of Santa Fe Institute's Project GUTS: Growing Up Thinking Scientifically, I write to express our strong commitment to and enthusiasm for New Mexico's Race to the Top Application. Santa Fe Institute's Project GUTS—Growing Up Thinking Scientifically—engages middle school students in scientific research with the aim of increasing the number of students prepared for high school science classes, college majors, and careers in STEM. Students explore science topics relevant to their local community through the lens of complex adaptive systems and agent-based modeling thereby intertwining locally relevant study with cutting edge work in complex systems. Through partnership with the Supercomputing Challenge we have developed a statewide network of STEM teachers who are integrating computational science activities and materials during the school day and within after school clubs, and have created a "pipeline" that supports students' sustained participation in STEM projects and in scientific endeavors in general.

We believe that New Mexico's Race to the Top application strives to ensure high quality educational opportunities for all New Mexico students and we applaud the innovation and transformation throughout the proposal, as well as its focus on the STEM Competitive priority. Sharing our expertise in computational modeling and computational science, we commit to work closely with the State of New Mexico's Math and Science Bureau and Innovate-Educate to develop a Statewide computing initiative that will engage students as early as 5th grade in computing and computational science programs. We appreciate that New Mexico's Race to the Top plan calls for far-reaching reforms in the areas of standards and assessment, data systems, teacher and principal effectiveness, and low performing schools. In particular, we support New Mexico's efforts throughout the entire proposal that are aimed at creating the conditions for reform, innovation, and transformation. We believe New Mexico is well positioned to implement a transformational computing initiative; the state has more computing power per capita than any other State in the nation and Innovate-Educate has been successful in catalyzing industry and national laboratories efforts around this initiative.

The New Mexico Computing Initiative will advance computing across New Mexico to prepare students for participation in STEM and computing fields that are predicted to grow (and exists today) in New Mexico and throughout the Country. Recruiting students (with a priority on minority and females) in STEM programs with this computing focus will assure that the future workforce for New Mexico will be equipped with the skills necessary for jobs at Intel, Hewlett Packard, Los Alamos National Lab, Sandia National Laboratories and other key employers in the State. We are strongly committed to this effort and we will work to ensure its success.

Sincerely,

(b)(6)

Irene A. Lee

Principal Investigator

Project GUTS: Growing Up Thinking Scientifically

Santa Fe Institute



**Sandia National Laboratories**

Operated for the U.S. Department of Energy by  
**Sandia Corporation**

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**Michael D. DeWitte, P.E.**  
Senior Manager  
Director, K-12 Science and Engineering Programs

May 6, 2010

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

Dear Secretary Duncan,

Sandia National Laboratories is committed to improving student achievement, especially in science, technology, engineering and mathematics (STEM); however, we are also very interested and committed in improving our education system for all. Our emphasis has been to engage in the issues with a focus on improving the system through the development of rigorous standards and assessments, using data and quality tools to drive decisions and improvement, developing quality teachers through relevant professional development, and partnering with our educational professionals to provide "out of school enhancements" to augment and supplement classroom teaching as well as teacher development.

Furthermore, we are committed to work with the NM Public Education Department (NMPED) in developing balanced assessments and evaluations of school leaders and teachers. We are excited by the prospect of working to leverage Sandia's existing work with the New Mexico schools through new initiatives with the NMPED and other partners.

Therefore, we are engaged and offer strong support for New Mexico's "Race to the Top" (RTTT) grant application. As a research lab, we understand the necessity for our schools to be more creative and innovative in the development of new approaches to address the challenging needs of educating our children in today's dynamic world. As I have personally stated on numerous occasion, we must "turn the page/s" to enter a new chapter in education; where PAGES = Performance, Accountability, Governance, Educator Quality and Systemic change. Let us turn those pages together.

We as a state and nation are in a "race to the top" of the global economy and its inherent competition as our future depends on it - period.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael D. DeWitte".



405 N. Date Street Suite 8  
Truth or Consequences, New Mexico 87901  
(575) 894-7589 / (575) 894-7584  
Dr. Bruce Hegwer, Executive Director

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

Dear Secretary Duncan:

We write to express strong support for New Mexico's Race to the top (RTTT) grant application. New Mexico has worked very hard over the past months to review the state's educational needs and to submit a plan to implement key innovations to public education in our state.

New Mexico is a state that faces significant educational challenges. Only 6 in 10 public school students in our state graduate from high school on time, and many of those who do graduate find that they are unprepared for college-level academics. Our student population is disproportionately low-income, rural, and English Language Learner.

New Mexico's application was developed by New Mexico Secretary of Education Veronica C. García in close collaboration with Governor Bill Richardson, school districts, teachers, industry leaders, education experts, and nonprofit organizations. The application's vision of reform proposes significant improvements in the state's delivery of education services.

For example, RTTT funding would support the implementation of Common Core education standards in New Mexico by aligning curriculum and developing formative assessments aligned to these standards and making them available to all turnaround schools and an additional 30 high-need schools. It would make education data more accessible to student and parents, who could assert more control over their own education through a web-based career pathways resource. It would establish a "Teacher and Principal Effectiveness Task Force" to develop multiple measures of teacher and principal effectiveness including student performance. The application also strengthens STEM education in New Mexico, consistent with President Obama's call for the United States to return to global leadership in STEM fields.

These and many other reforms contained within New Mexico's Race to the Top application are closely aligned with your and President Obama's expectations for the program: the planning process has brought together key education stakeholders to think boldly and creatively about education reform, and New Mexico's plan proposes innovations to eliminate structural barriers to academic achievement for all students in our state.

New Mexico's congressional delegation strongly supports New Mexico's Race to the Top application and urges the U.S. Department of Education to give it every due consideration.

Sincerely,

A handwritten signature in cursive script that reads "Bruce Hegwer, Ed. D.".

Bruce Hegwer, Ed. D.  
Executive Director

**"The mission of the SWREC is to support New Mexico School Districts in achieving their goals".  
Animas Public Schools, Deming Public Schools, Hatch Valley Public Schools, Lordsburg Municipal Schools,  
Truth or Consequences Municipal Schools, Reserve Independent Schools.**

May 25, 2010

To the Honorable Arne Duncan  
Secretary  
US Department of Education  
400 Maryland Avenue, SW  
Washington, D.C. 20202

Dear Secretary Duncan:

Please accept this letter of support for the New Mexico Race to the Top application (Round 2). As founding board members of Innovate-Educate, we want to show our support for this application. As you are well aware, Innovate-Educate New Mexico is the incubator state that was selected by our board to focus on educational innovation and transformation. We believe that the Race to the Top application from New Mexico strives to ensure high quality educational opportunities for all of New Mexico's students. We appreciate that New Mexico's Race to the Top plan calls for far-reaching reforms in the areas of standards and assessment, data systems, teacher and principal effectiveness, and low performing schools as well as a strong focus on STEM. In particular, we support New Mexico's efforts throughout the entire proposal that are aimed at creating the conditions for reform, innovation, and transformation.

Our board strongly supports New Mexico's plan for Race to the Top. ***Innovate Educate and its corporate partners will dedicate its efforts and resources to ensuring that New Mexico meets the promises made in the grant.*** Our board will work with the State of New Mexico in this public/private partnership to close the educational gap that has existed for many years. We believe that our public/private partnership will be a key component to the state's success. We thank you for recognizing the importance of industry's role in partnering with your state.

The provisions in the state's application ensure New Mexico is strongly positioned to receive the maximum amount of available funding. Subsequent to the anticipated award of funds, many of our companies on the board will intend to pursue a formal role in the implementation of the state's Race to the Top efforts by responding to partnership opportunities per the state's RFP process.

Sincerely,



Jami Grindatto, Intel Corporation, Chairman



Jamai Blivin, CEO/President

***(see page 2 for full listing of confirmed signatures to this letter)***



**Yes, we the Innovate-Educate Board of Directors, support New Mexico's Race to the Top application!**

Company	Name	Title
Intel	Jami Grindatto , Chairman of IE	Director, Corporate Relations NM
Innovate-Educate	Jamai Blivin	Executive Director, IE
AT&T	Lara Smith	Executive Director
AT&T	Thomas Molina	National Education Director
Applied Research Associates	Joan Myers	Director, Cyber technologies
Apple Computer	Glen Banks	New Mexico P20 Rep
Apple Computer	Bill Bowman	Regional VP
Blackboard Institute	Gordon Freedman	Global Education Strategist
Cisco Systems	Charles Fadel	Global Education Strategist
Cisco Systems	Pete Cevenini	U. S. Public Sector
Cisco Systems	Rick Lucero	P20 Rep New Mexico
Center for Digital Education	Marina Leight	Editor in Chief-Converge Magazine
Dell Computer	Mark Weston	U.S. Education Strategist
EMC Corporation	Carlos Calkins	Regional Sales
Hewlett Packard	Mike Belcher	Education Solutions, HP Americas Program Director, Ford Motor Company Fund, Ford PAS
Ford Motor Company	Cheryl Carrier	Corpoate Affairs, Western States
IBM	Ray Johnson	U.S. Director of Education
Intel	Carlos Contreras	Director of Education/Community Giving
Los Alamos National Lab	Dr. Kurt Steinhaus	Global Education Lead
Lenovo	Michael Schmedlen	Public Sector, West
Lenovo	Colin Call	VP Human Resources
Lockheed Martin	Kim Adams	Western States Corporate Affairs
Microsoft	Celeste Alleyne	VP, Public Sector & Education
Monster Worldwide	Lee Ramsayer	Director of Sales
Monster Worldwide	Beverly Wheeler	Senior Marketing Director, U.S.
Oracle Education Foundation	Denise Hobbs	President, Qwest NM
Qwest	Loretta Armenta	Director, Corporate Relations/Education
Sandia National Laboratories	Michael DeWitte	U. S. P20 Industry Strategist
SAS	Colleen Jenkins	Chief Counsel , U.S. Strategist
Schooldude	Senator Eric Reeves	Senior VP, Academic Strategies
SunGard Higher Education	Dr. Bill Graves	



DEVELOPING LIVES

May 19, 2010

The Honorable Arne Duncan  
Secretary of Education  
US Department of Education  
400 Maryland Avenue, SW  
Washington, DC 20202

Dear Secretary Duncan:

YDI is excited in being a part of a strong group of partners who have worked very hard to review some of New Mexico's educational needs. As a strong supporter for New Mexico's Race to the Top (RTTT) grant application, YDI would like to thank you for your consideration in this matter.

New Mexico's application was developed by New Mexico Secretary of Education, Veronica C. Garcia in close collaboration with Governor Bill Richardson, school districts, teachers, industry leaders, education experts, and non-profit organizations. The process was intense and designed to take decisive action to address the educational challenges that confront our State. YDI was an integral part of the process and our ideas and participation were included in this application.

We all are grateful for the opportunity in implementing key innovations to public education in our state. Again, your consideration in this matter is greatly appreciated. Should you have any questions please feel free to contact me at 505-212-7446.

QASID  
MAY 24 10 50 AM '10

With many thanks, I remain,

Sincerely,

(b)(6)

Augustine Chris Baca  
President/CEO

acb/dh



**YDI**  
DEVELOPING LIVES

The Honorable Arne Duncan  
Secretary of Education  
US Department of Education  
400 Maryland Avenue, SW  
Washington, DC 20202

**Appendix A-2-2**  
**Race to the Top Work Group Members**

**Race to the Top April 15-16 Meeting Participants**

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NGA Center for  
BEST PRACTICES



CCSSO  
Council of Chief State School Officers



Council of the  
Great City Schools



A Union of Professionals

## **Common Core State Standards in English Language Arts and Mathematics: A Teacher-City-State Collaboration to Pilot Test Their Viability and Effects on Student Achievement**

### *The Common Core State Standards Initiative*

A set of core common core standards in math and English language arts is now being developed under the guidance of the Center on Best Practices at the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO). Other organizations directly involved are ACT, the College Board, Achieve and a series of subject area consultants. Past efforts to implement standards have failed due to the absence of the supports needed to bring the standards to life in the classroom. The Council of Great City Schools (CGCS) and the American Federation of Teachers (AFT) understand that the ultimate success of the standards at the ground level will depend on involvement and buy-in from their memberships and proposed to NGA and CCSSO a joint effort to pilot the implementation of the standards to evaluate their viability and effects on student achievement. The four organizations identified cities that would likely provide the standards the greatest chance for success based on the alignment of leadership from the local union, district, chief and the governor's office. Proposed sites include: Albuquerque, Atlanta, Boston, Cleveland, Philadelphia, and St. Paul.

The project will involve adopting the new standards, developing initial curriculum and materials, providing extensive professional development aligned to the standards, and evaluating the implementation and the effectiveness of the standards over a period of time.

### *Contributions Already Made*

The AFT and the CGCS have been actively advocating for the involvement of teachers in the development and implementation of the standards and all other aspects of a comprehensive standards-based system. AFT and CGCS members met with representatives of NGA, CCSSO and the standards writing teams to provide suggestions for improving early drafts of the standards. The drafts released on March 10, revealed that the recommendations were given serious consideration.

### *Upcoming Work*

On April 19<sup>th</sup>, AFT, CGCS, CCSSO and NGA will convene representatives from the proposed pilot districts including union leaders, superintendents and district officials, representatives from the state school officers and governors' offices to begin the discussion about what is needed to ensure the successful implementation of the standards. Consideration will be given to the curriculum, instructional materials, model lesson plans, labor/management relationships that are focused on improving student achievement, time for teacher collaboration and other tools necessary for teachers to teach to the standards.

Following the meeting, the partnering organizations will develop grant proposals to be submitted to the U.S. Department of Education and other funders to support the work. The work will be done by an outside contractor under the direction of the partnership. Work will commence in May of 2010. In addition, the partnership has agreed that a careful evaluation of the pilot site implementation project will greatly assist in bringing the project to scale so a contractor has been identified to track and analyze the work of the pilot sites during implementation.

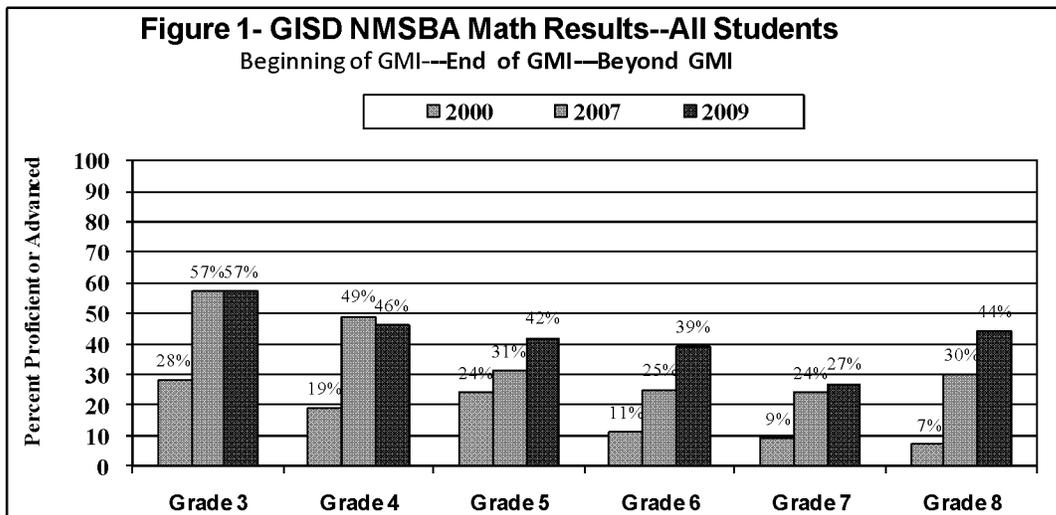
The Common Core State Standards Initiative presents a significant opportunity for states to collectively develop and adopt a core set of academic standards. Yet, without meaningful alignment of curriculum, instructional resources, professional development and other components of a comprehensive standards-based system we will not meet our goal of ensuring that all students are prepared for college and careers.

## Appendix A-3-1

### Gadsden Mathematics Initiative

In May 2000, the Gadsden Independent School District was considered one of the lowest achieving school districts in New Mexico. It actually ranked 88 out of 89 districts in terms of academic achievement scores. One hundred percent of the students in the district are eligible for free lunch and all K-8 campuses are designated as Title I. In 2000 the turnover rate of teachers was very high (25%/year). There was no district-wide math curriculum and every school taught mathematics in the way they desired. The professional development of teachers was sporadic and not relevant.

With funding and assistance from the National Science Foundation, the District launched the Gadsden Mathematics Initiative to improve the skills and knowledge of math teachers by providing intense, ongoing and job embedded professional development. The study of this project found that: 1) the type of professional development (Lesson Study with Teacher Collaboration versus Traditional Individual Professional Development) made a significant difference; 2) the number of professional development hours correlated positively with student achievement when mathematics coaches were hired at the school sites and professional development became job-embedded in schools and classrooms; and 3) the extent to which professional development was actually implemented in the classroom positively impacted student achievement. This, in turn, improved student performance. Figure 1 shows that the percent of GISD students who scored “proficient or above” on the New Mexico Standards-based Assessment rose significantly from the time GMI was first funded in 2000 to the time the grant ended in 2007. In fact, GISD continued to improve math achievement even two years after GMI ended.



Appendix A-3  
NAEP Mapping Study



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# NEWS RELEASE

For Immediate Release: October 29, 2009

## New Mexico Continues to Rank High Nationally for Setting High Academic Standards and Assessments for Student Performance

(Santa Fe, NM) – New Mexico continues to be among the top states in a proficiency standards report released Thursday by the National Center for Education Statistics (NCES). The report uses the National Assessment of Education Progress (NAEP) as a common yardstick to compare the rigor of state proficiency standards. The study shows the range of differences in state proficiency standards in reading and mathematics.

The study, "Mapping State Proficiency Standards Onto the NAEP Scales: 2005-2007," compares the two assessments by looking at the minimum state scores that determine proficiency, as defined under the No Child Left Behind (NCLB) Act, and the NAEP test in fourth and eighth grade reading and mathematics tests. This particular study has no relationship to student performance. It compares the rigor of an individual state's assessment to the NAEP and other states' AYP tests.

The mapping report rates New Mexico 9<sup>th</sup> in the nation in fourth grade reading, 9<sup>th</sup> in the nation for fourth grade math, 6<sup>th</sup> in eighth grade math, and 14<sup>th</sup> in eighth grade reading.

"This alignment study is an independent validation that New Mexico's academic standards and annual Standards Based Assessment set high expectations for academic rigor for all New Mexico students," said Veronica C. García, New Mexico Education Secretary.

The mapping study analyzed assessments for both grades 4 and 8 in reading and math using data from the 2005-2007 academic years. According to the study, "although there is an essential ambiguity in any attempt to place state standards on a common scale, the ranking of the NAEP score equivalents to the states' proficiency standards offers an indicator of the relative stringency of those standards."

To access a full text of the report go to: <http://nces.ed.gov/nationsreportcard/studies/statemapping.asp>.  
A detailed profile of assessment standards for each state is available at:  
[http://www.nces.ed.gov/nationsreportcard/researchcenter/profile\\_standards.asp](http://www.nces.ed.gov/nationsreportcard/researchcenter/profile_standards.asp)

###

**Appendix A-3-2**  
**New Mexico NAEP Data, 2003-2009**

Figure A.3.1- NAEP Mathematics Grade 4 Percent At or Above Proficient New Mexico & National Comparison

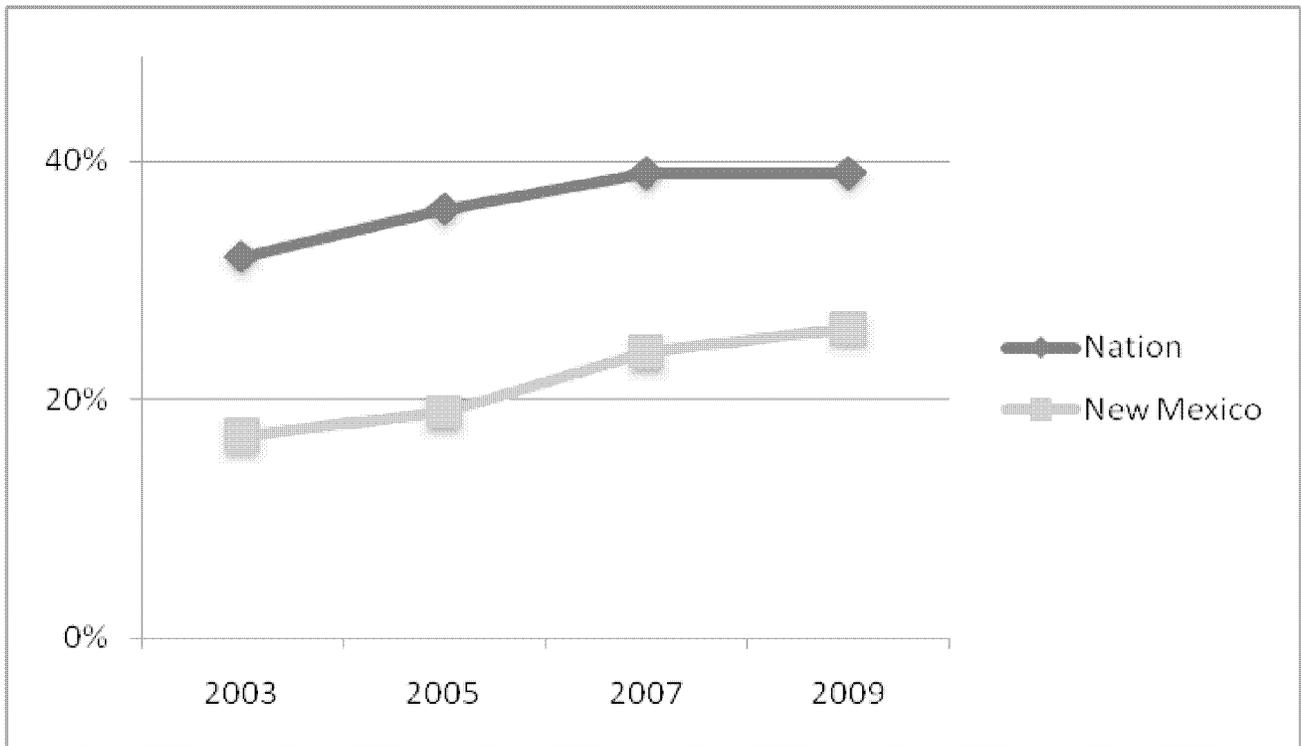


Figure A.3.2- NAEP Reading Grade 4 Percent At or Above Proficient New Mexico & National Comparison

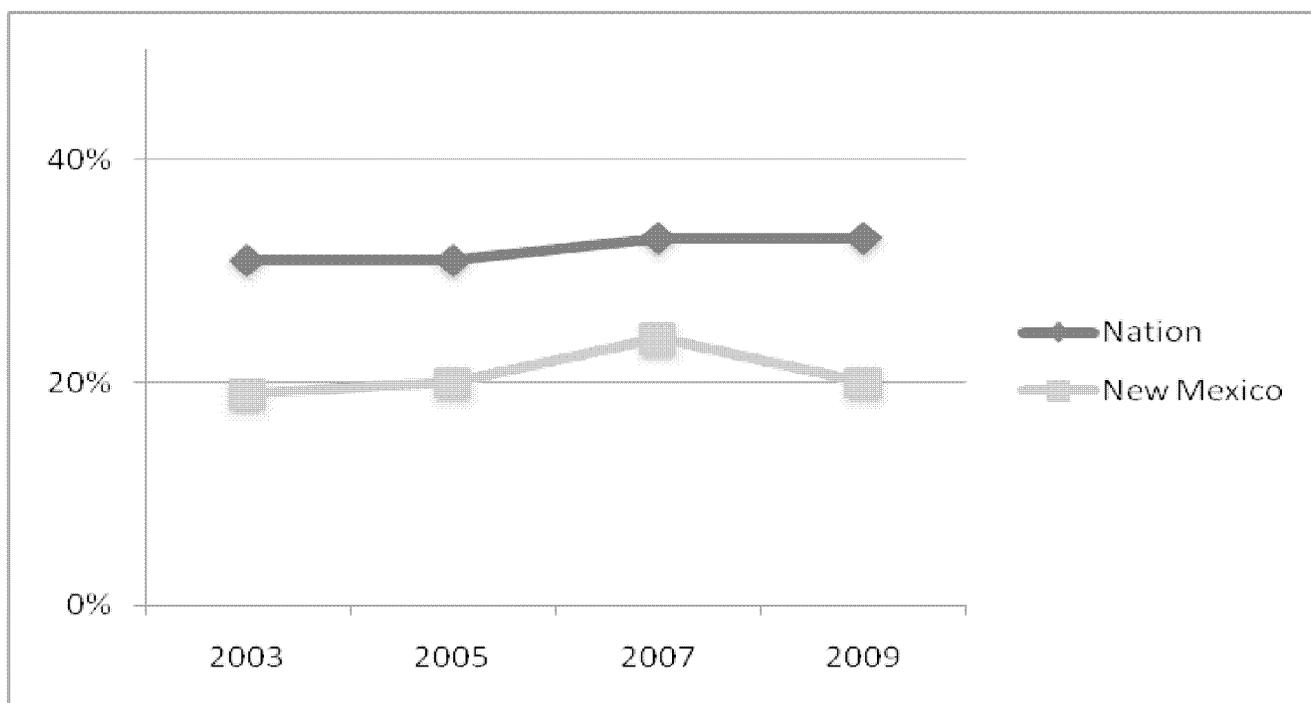


Figure A.3.3- NAEP Mathematics Grade 8 Percent At or Above Proficient New Mexico & National Comparison

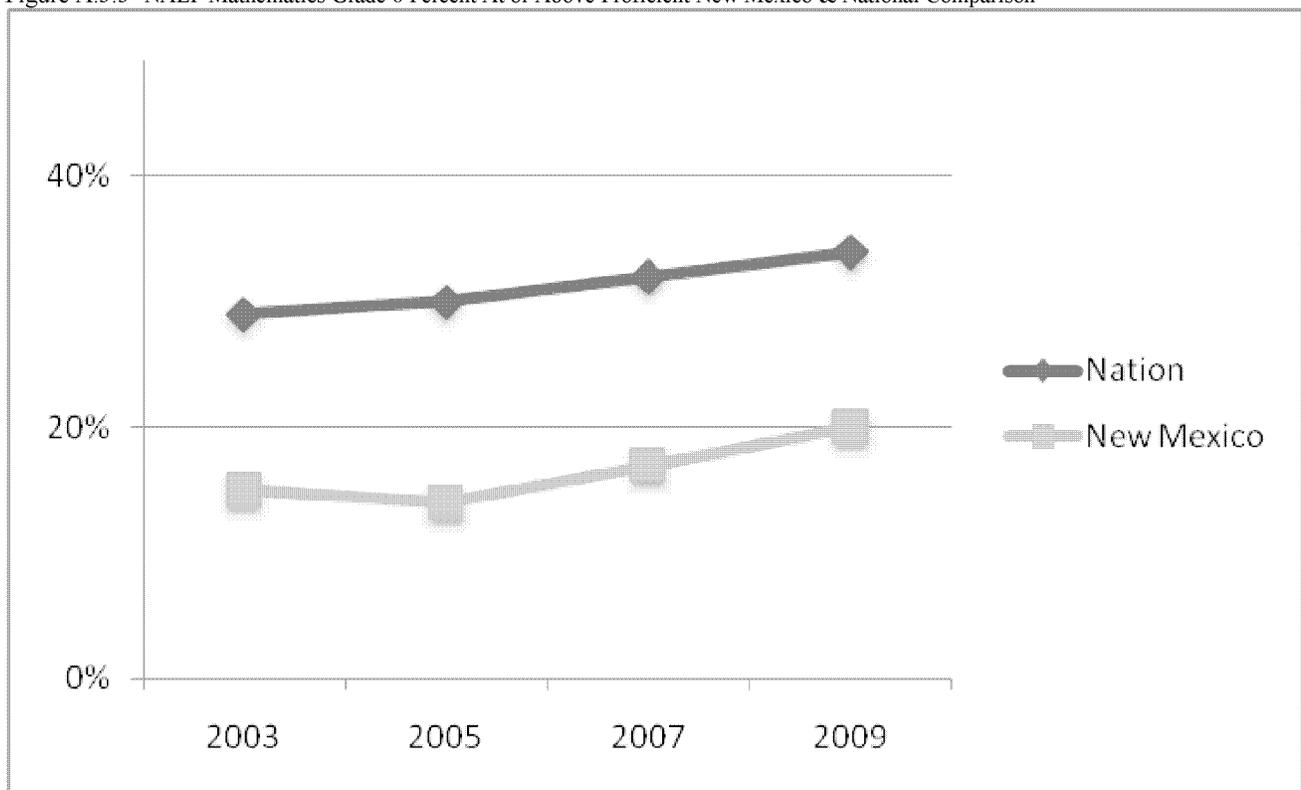


Figure A.3.4- NAEP Reading Grade 8 Percent At or Above Proficient New Mexico & National Comparison

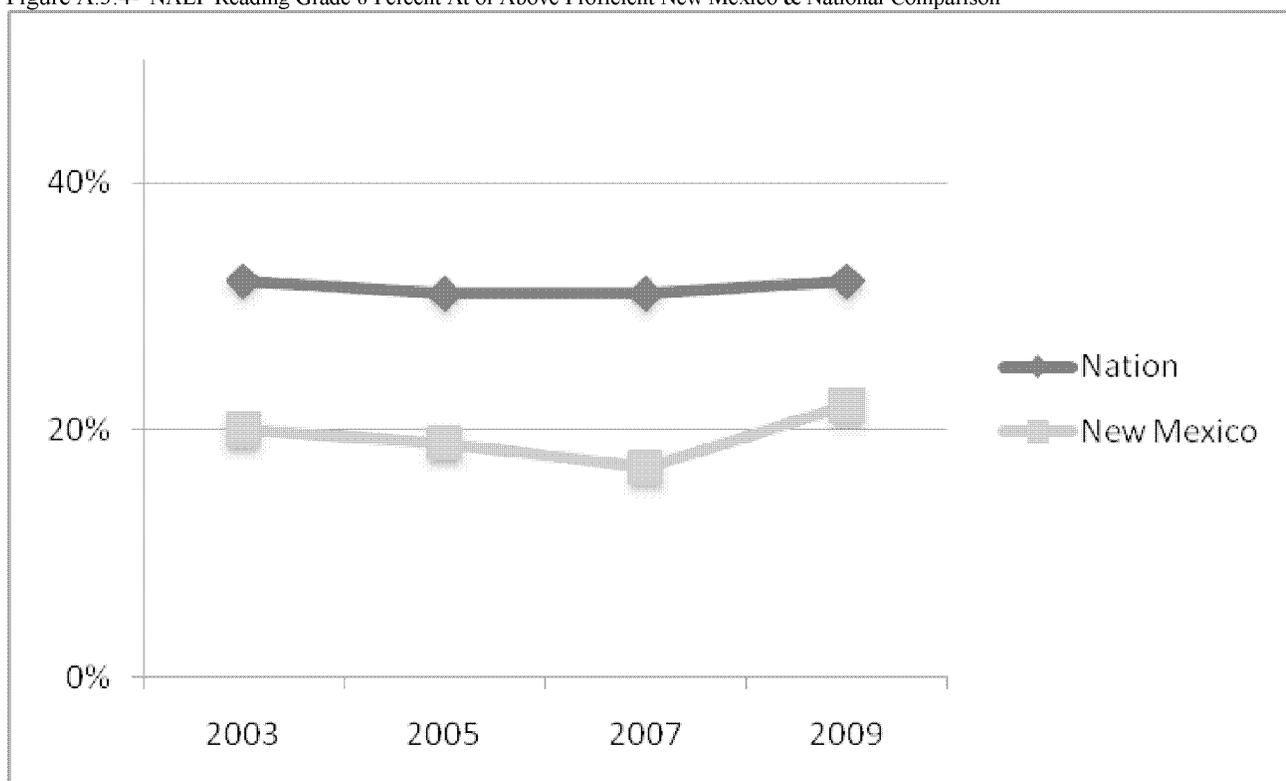


Figure A.3.5- NAEP Math Grade 4 Percent At or Above Proficient by Race/Ethnicity

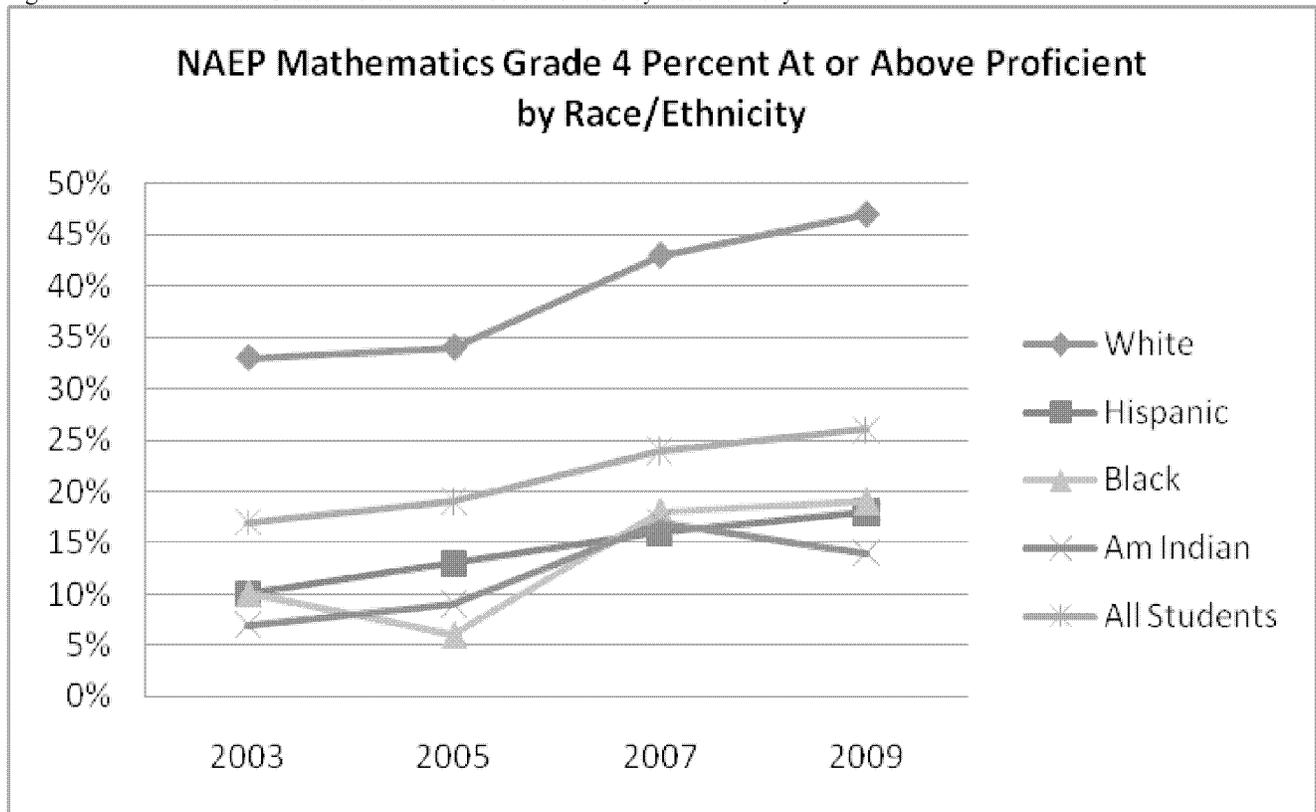


Figure A.3.6- -NAEP Reading Grade 4 Percent At or Above Proficient by Race/Ethnicity

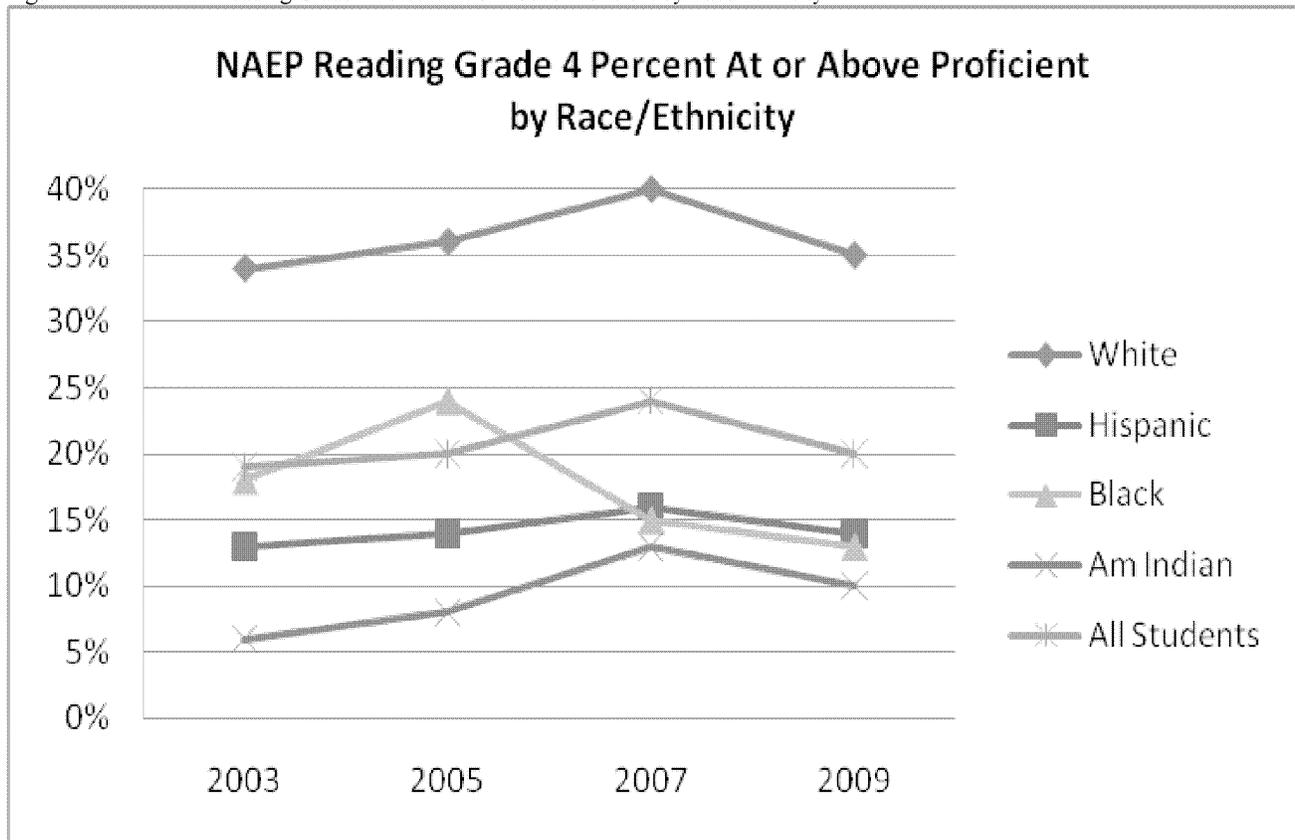


Figure A.3.7- Mathematics Grade 8 At or Above Proficiency by Race

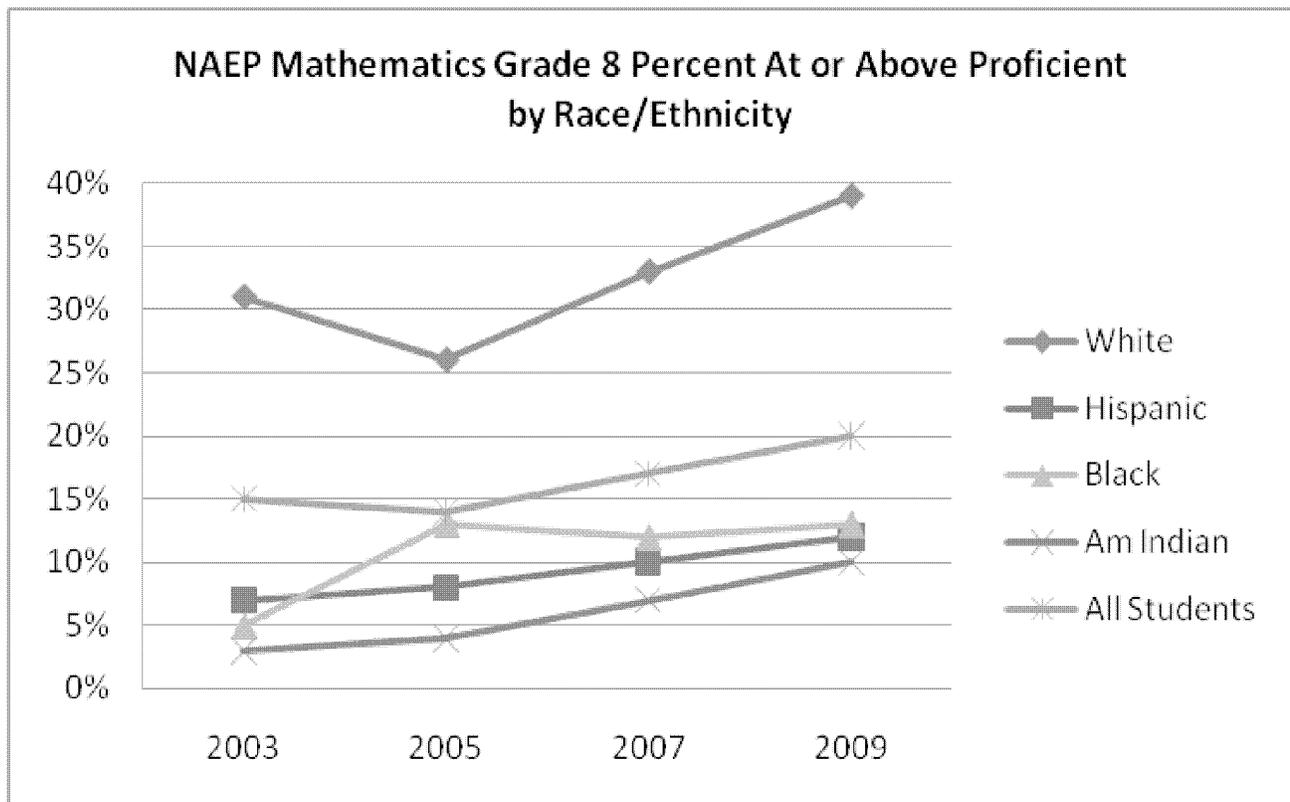
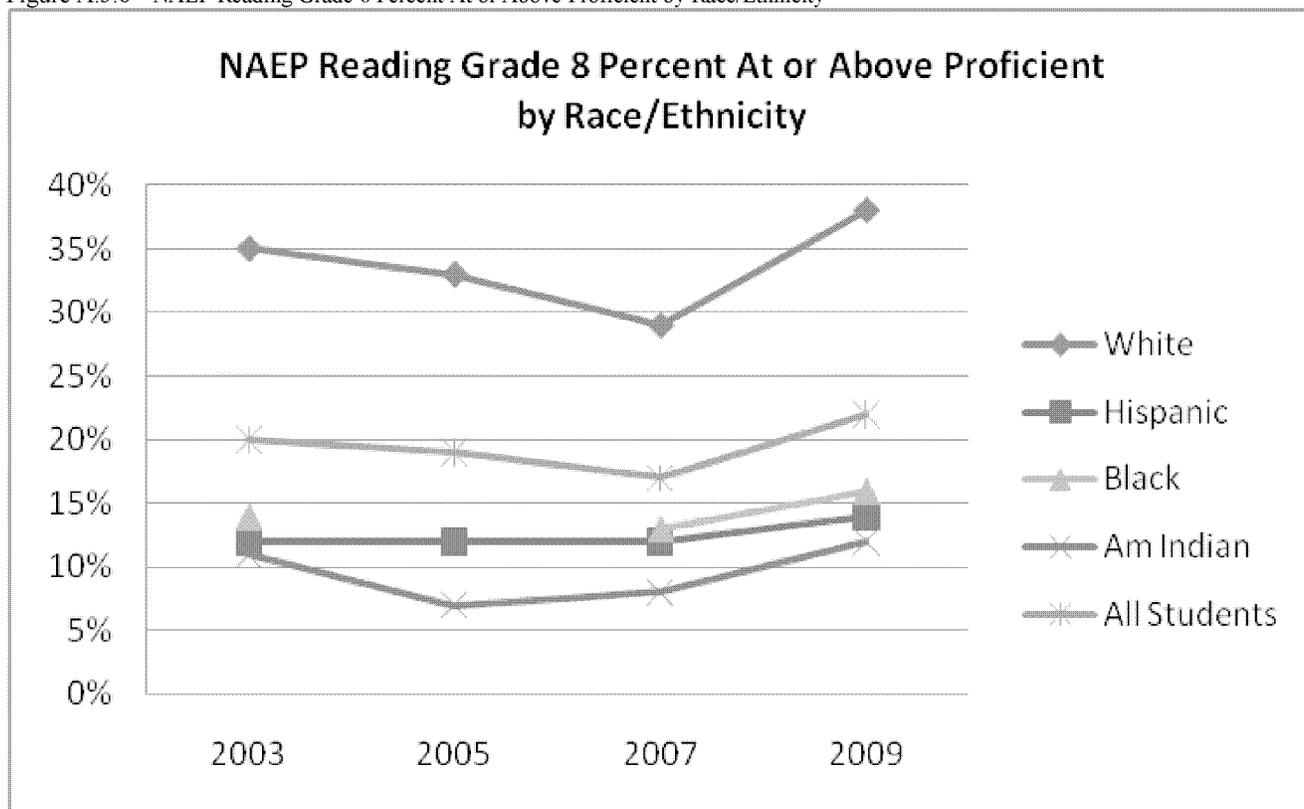


Figure A.3.8- -NAEP Reading Grade 8 Percent At or Above Proficient by Race/Ethnicity



Appendix A-3-3

New Mexico Standards Based Assessment (NMSBA) Data, 2003-09

Figure A.3.9- NMSBA

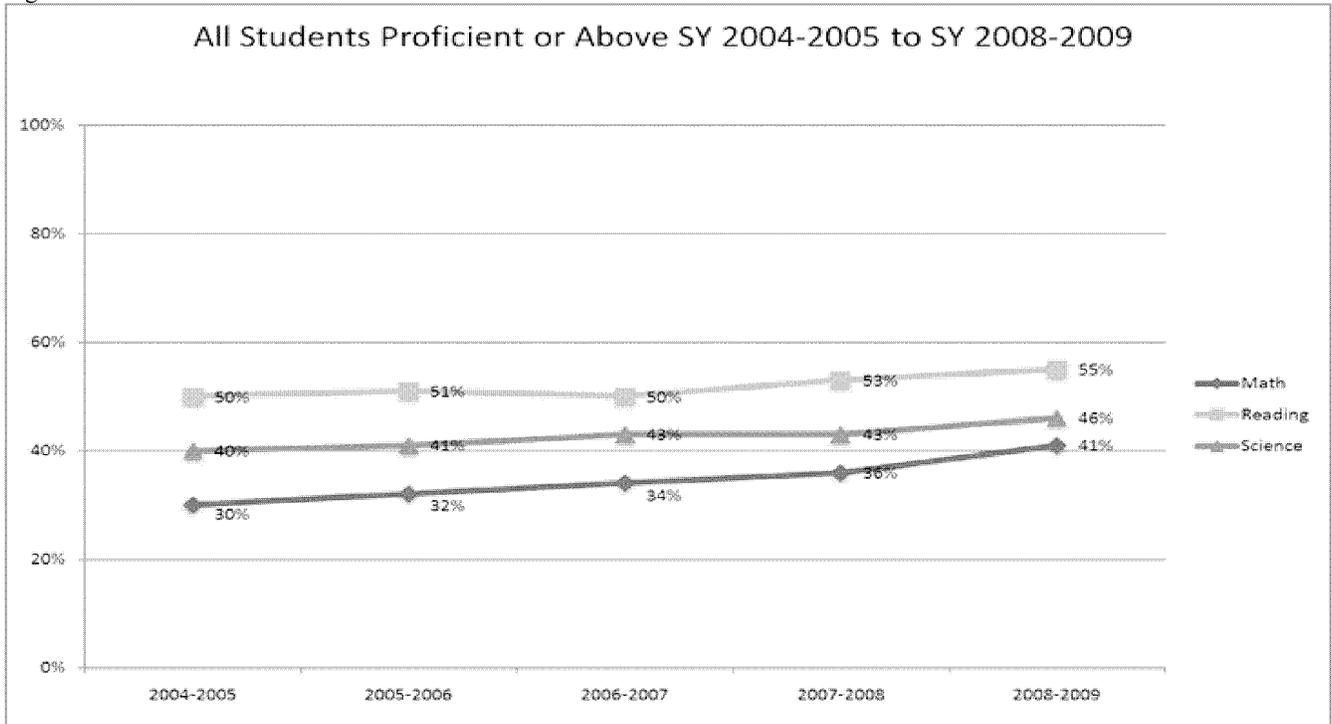


Figure A.3.10- NMSBA

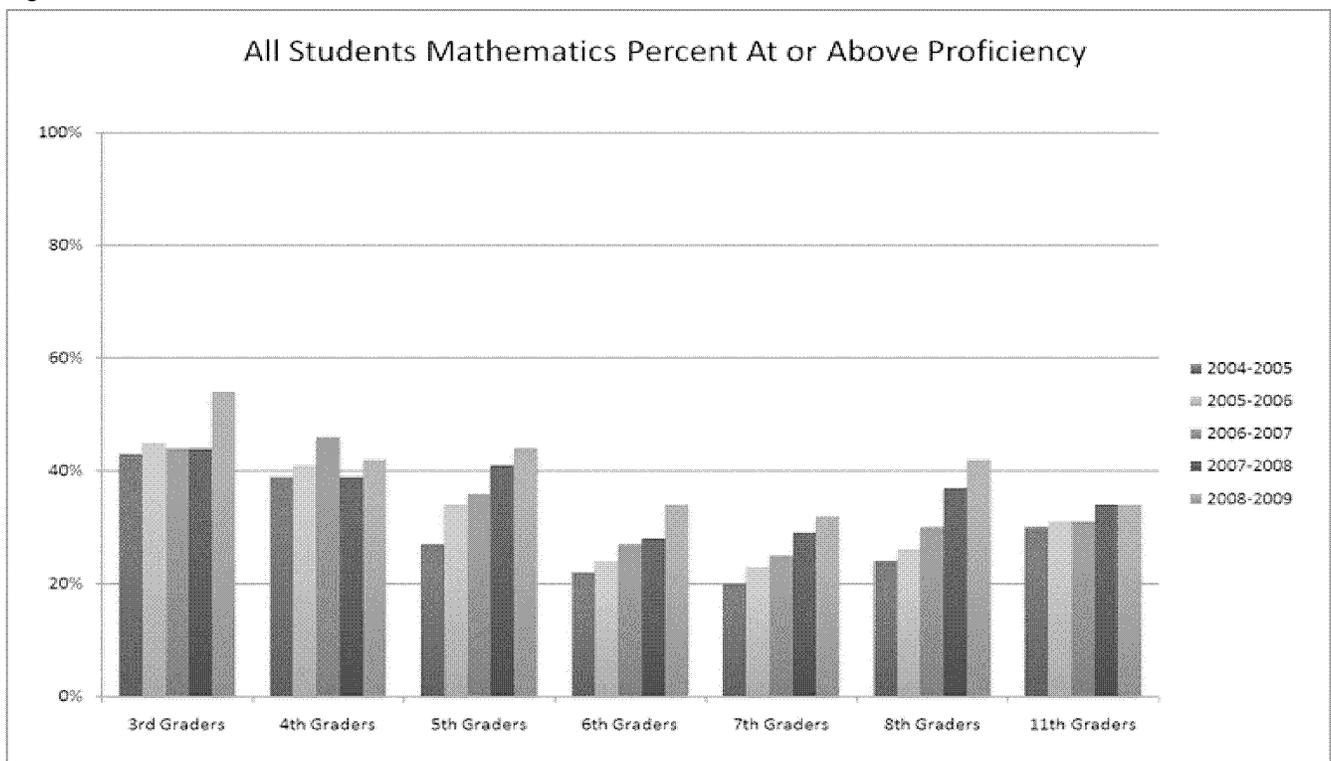


Figure A.3.11- NMSBA

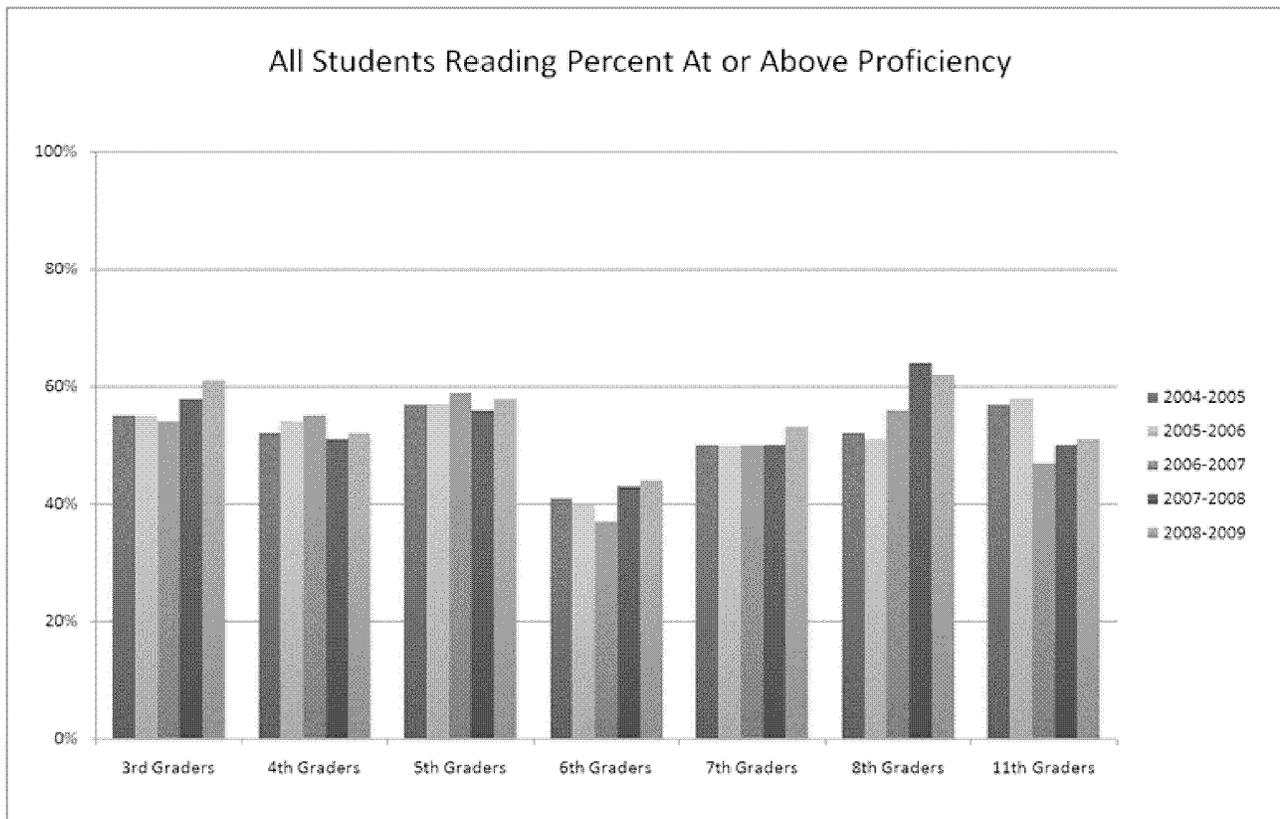


Figure A.3.12- NMSBA

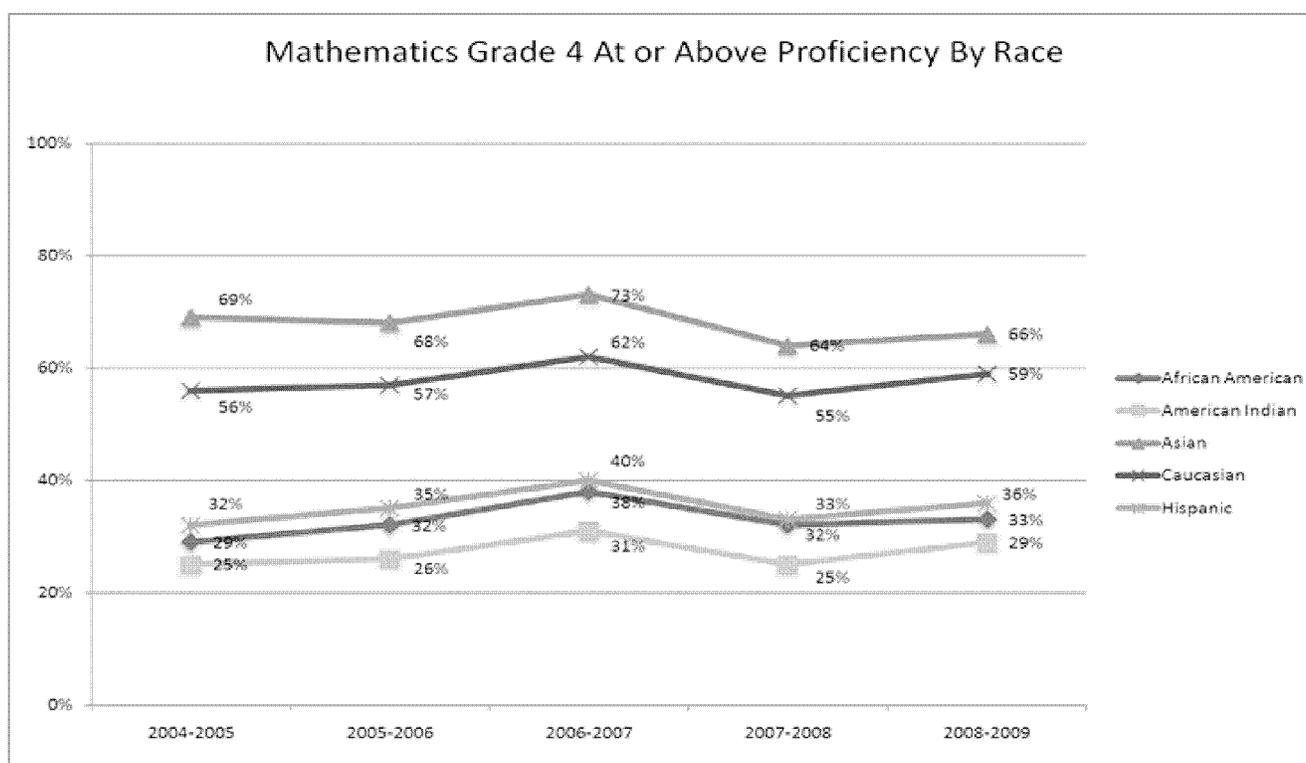


Figure A.3.13- NMSBA

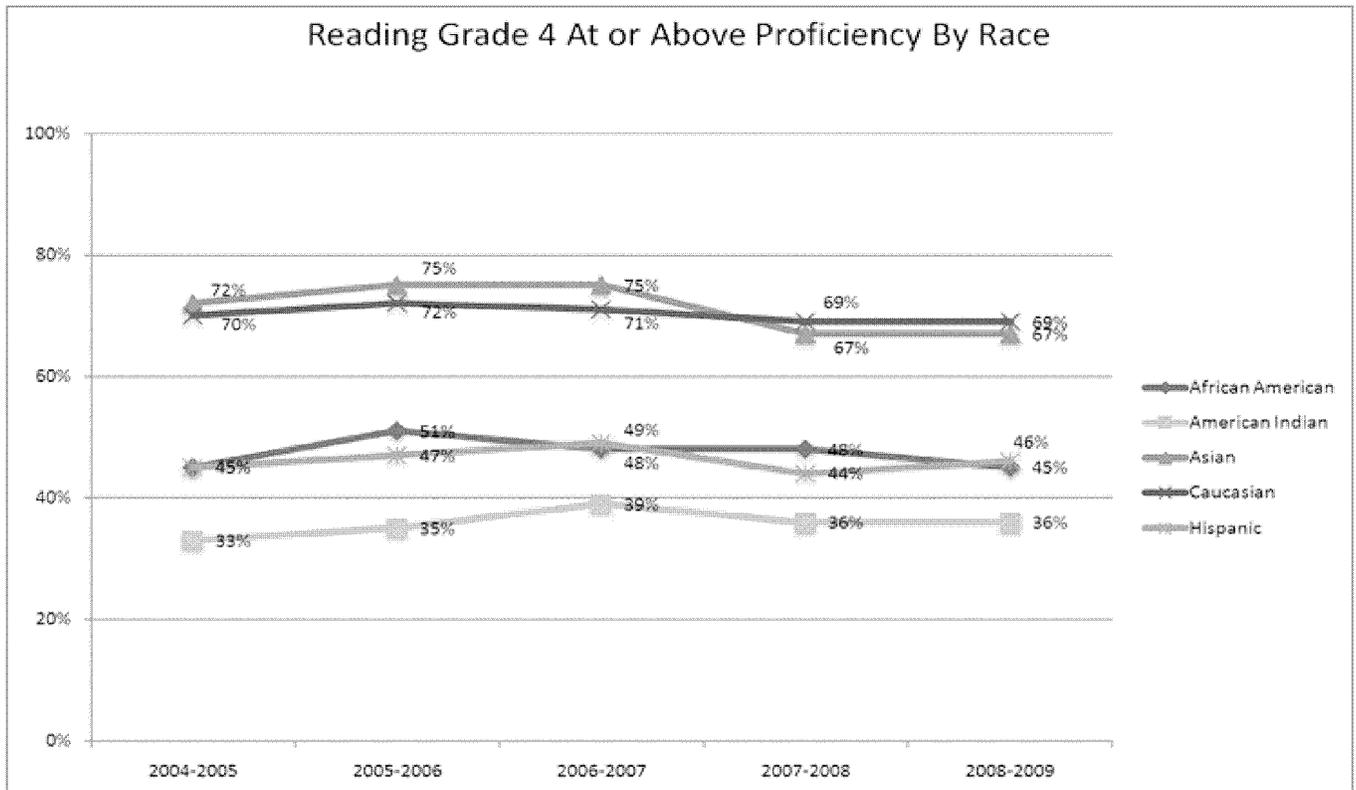


Figure A.3.14 - NMSBA

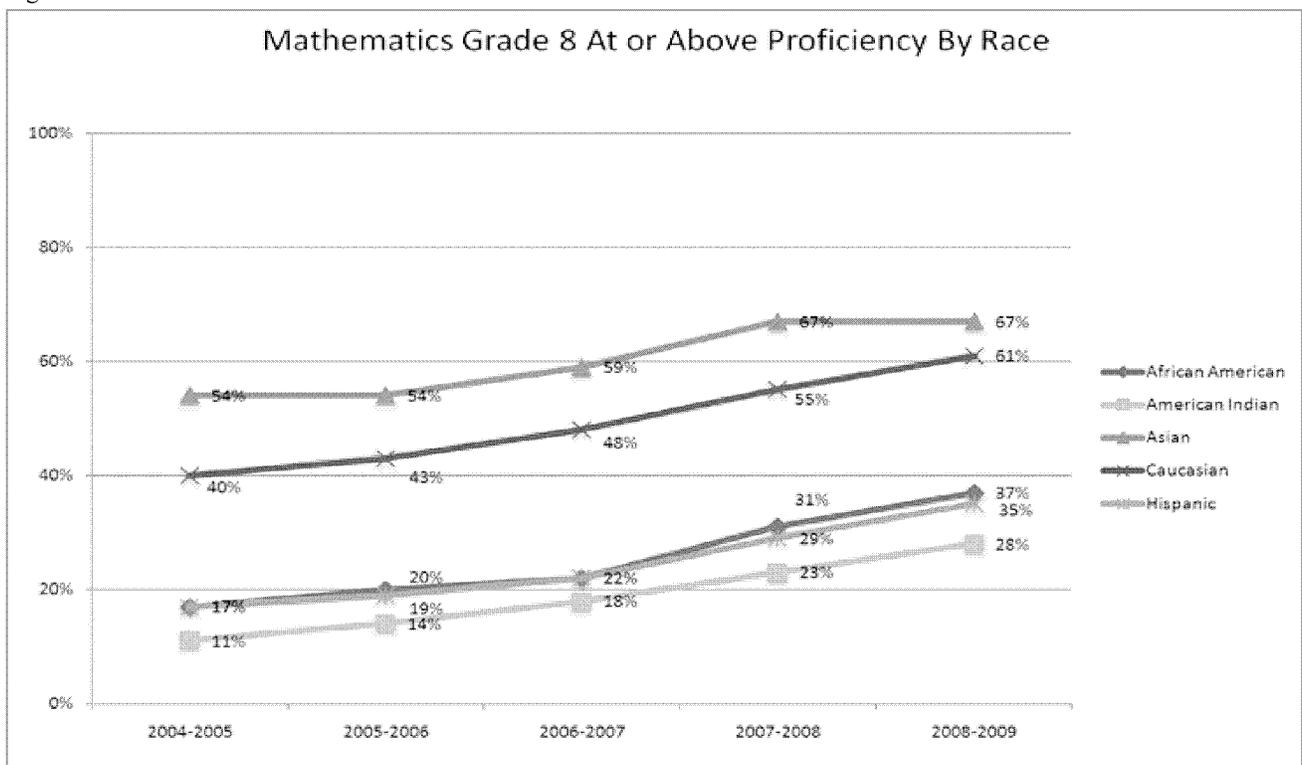
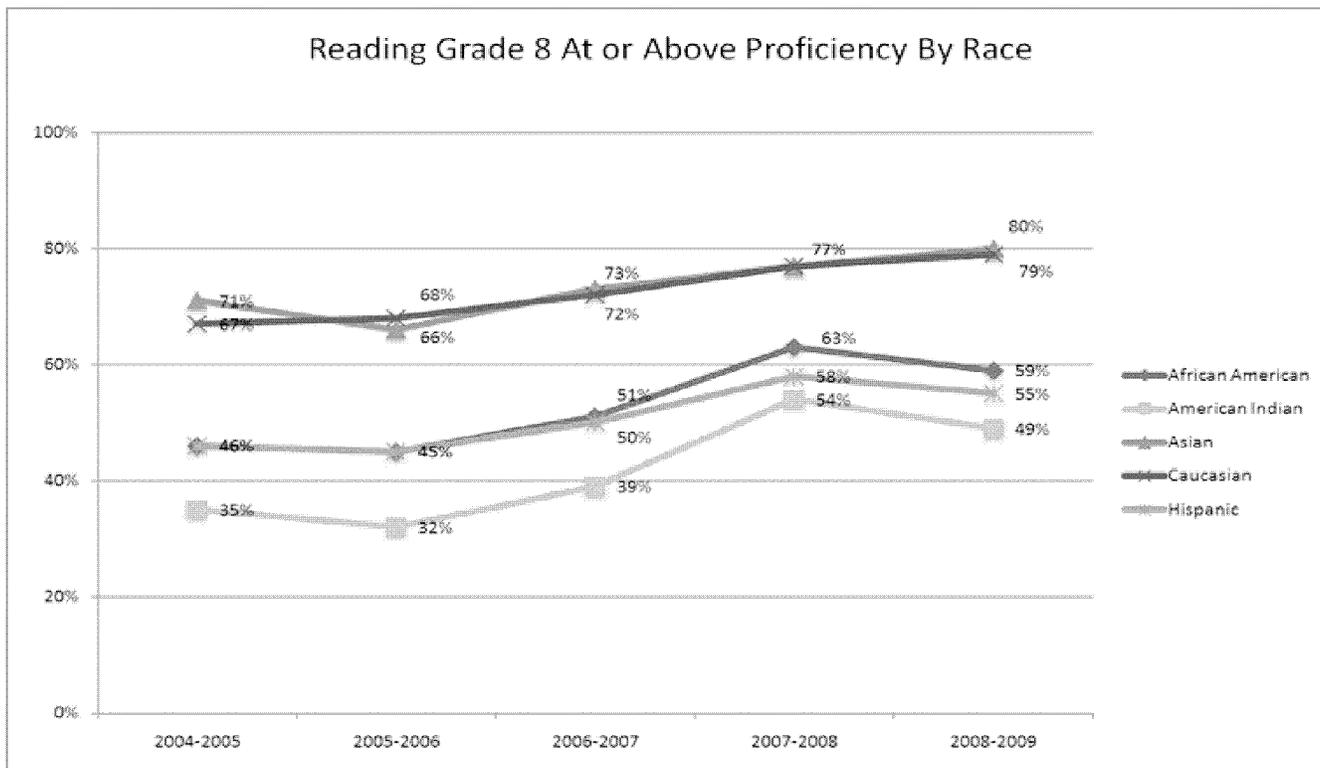


Figure A.3.15- NMSBA



# **The New Mexico PreK Evaluation:**

## **Results from the Initial Four Years of a New State Preschool Initiative**

### **FINAL REPORT**

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W. Steven Barnett, Ph.D.  
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## ACKNOWLEDGEMENTS

We extend our sincere appreciation to the New Mexico stakeholders who provided assistance with this final report: Dr. Scott Hughes at the Office of Education Accountability, New Mexico Department of Finance and Administration; Secretary Dorian Dodson, Dan Haggard, Judith Paiz, Marisol Atkins, and Diana Martinez-Gonzalez at the state Children, Youth and Families Department; Secretary Veronica C. García, Dr. Catherine Cross Maple, Ann Zuni and Brenda Kofahl at the state Public Education Department; Claire Dudley of the New Mexico Lieutenant Governor's Office; and Dr. Peter Winograd of the New Mexico Governor's Office. Many thanks also to our colleagues at NIEER who contributed to this report, including Dr. Ellen Frede, Alexandra Figueras-Daniel, Allison Friedman, and Carol Shipp. Thanks to Dr. Candace Kaye, our New Mexico State University research partner, and her team; as well as all the school administrators and teachers who helped to facilitate this research. Finally, we are particularly grateful to the New Mexico PreK participants who took time out of their school days to participate in our study – without their involvement it would not have been possible to carry out our research.

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## EXECUTIVE SUMMARY

State-funded prekindergarten programs now play a major role in children’s educational experiences during the year before kindergarten entry. These types of programs were operating in 38 states by 2008, representing an investment of \$4.6 billion in state funds, and serving more than 1.1 million children nationwide. New Mexico’s state-funded prekindergarten initiative, known as New Mexico PreK, was established in 2005 through the work of Governor Bill Richardson, Lieutenant Governor Diane Denish, and the New Mexico Legislature. It is one of the most recently started prekindergarten initiatives in the United States, but has already expanded quickly during the past four years due to annual increases in state appropriations for PreK.

The State of New Mexico funded the National Institute for Early Education Research (NIEER) to carry out a comprehensive evaluation of the New Mexico PreK initiative, beginning in its first year of operation. This evaluation has included four main components:

1. Examining the benefits received by children who participate in PreK
2. Investigating PreK classroom quality
3. Conducting an analysis of the economic impacts of the PreK program
4. Gathering information about parent and provider perceptions toward the PreK initiative through focus groups

Estimates of the effects of New Mexico PreK on participating children have been based on a statistical approach known as the regression-discontinuity design (RDD). This methodologically rigorous research design takes advantage of New Mexico’s strict preschool and kindergarten eligibility dates to provide unbiased estimates of the effects of PreK. To date, this method has been used three times in New Mexico – during fall 2006, fall 2007, and fall 2008 – to estimate the impacts of PreK on young children’s language, literacy, and math skills.

Our results show that New Mexico PreK produces consistent benefits for children who participated in PreK, compared to those who did not, across all three years of the study. Positive impacts of PreK were found in each of three content areas important to early academic success – language, literacy, and math. Findings in literacy and mathematics were statistically significant in analyses for each school year of New Mexico PreK. Findings specific to our measure of early language were statistically significant for the first two years of the study, and using a combined, multi-year data set. Further research is needed to determine whether apparent decreases in vocabulary scores of children attending successive years of the PreK program are meaningful. Additional

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analyses of the impacts of PreK have focused on providing separate estimates for the two state agencies that share administrative responsibility for the New Mexico PreK initiative – the Children, Youth and Families Department (CYFD) and the Public Education Department (PED). The results suggest that PreK programs operated by PED and CYFD have very similar impacts on young children. Overall, our findings suggest that New Mexico PreK improves children’s readiness for kindergarten in key academic areas, across different types of PreK settings.

Using a battery of classroom observation tools, we have also provided annual estimates of several aspects of quality in New Mexico PreK classrooms. Overall classroom quality

has been good. Our analyses show that PreK classrooms have scored highest on a Teaching and Interactions factor that measures aspects of the classroom environment including general supervision, using language both to develop reasoning and more informally, and staff-child interactions and interactions among children. Classrooms have tended to score slightly lower, but still approached good quality, on a Provisions for Learning factor focusing on aspects of the classroom environment such as room arrangement, schedule, gross motor equipment, and dramatic play.

In addition to examining overall classroom quality, we examined classroom supports for early language and literacy, and for mathematics. New Mexico PreK classrooms provided an average level of support for early language and literacy, based on a measure that focuses on both the environment for literacy and teaching activities related to language and literacy. Levels of support for early math were poor, based on a measure that focuses on classroom materials and teaching activities related to mathematics.

Classroom quality scores using each of our three observation tools – which cover overall classroom environment, language and literacy support, and mathematics support – were relatively stable across the four years of this study. However, in the first year of the study, scores for the mathematics tool and for the Teaching and Interactions factor of the overall quality measure reached levels not attained in later years of this research. In each successive year of the study, larger numbers of classrooms have been observed, allowing for more precise estimates of classroom quality and reducing the potential for error in our estimates. Further analyses of classroom quality at CYFD and PED PreK sites show that quality in PreK sites operated by the two state agencies is similar.

The economic impact analysis conducted as part of this evaluation suggests that there are good economic reasons to invest in New Mexico PreK and the children it serves. PreK can improve educational outcomes by reducing the numbers of children retained in grade, lowering the number of children eligible for special education, and increasing graduation rates. The economic impact analysis finds that an estimated \$5.00 in benefits are generated in New Mexico for every dollar invested in New Mexico PreK. The benefit to U.S. society is estimated at \$6.17 for every dollar invested in New Mexico PreK. It is estimated that New Mexico PreK participants will have better educational outcomes that produce higher earnings. They will be less likely to engage in criminal behavior, to be victims of abuse and neglect, and to use welfare services. The real rate of return to New Mexico's state-funded prekindergarten program is an estimated 18.1 percent to New Mexico and an estimated 22.3 percent as a whole.

Finally, results from focus groups conducted with families of New Mexico PreK children and PreK service providers supplement our quantitative results with valuable qualitative data. These results suggest that participants are very supportive of PreK and want to see the program expanded further. Families and providers reported seeing specific, tangible improvements in child academic and social outcomes for those who attended PreK. Both providers and families would like to see more funding for PreK to fine tune the program. The funding priorities identified for PreK included providing funds for more slots, improved teacher salaries and benefits, transportation services, and increased family involvement activities. Focus group members appreciated the resources already available for teacher and staff training, materials and supplies, and staff-child ratios.

Based on the findings summarized in this final report, we conclude with three policy recommendations:

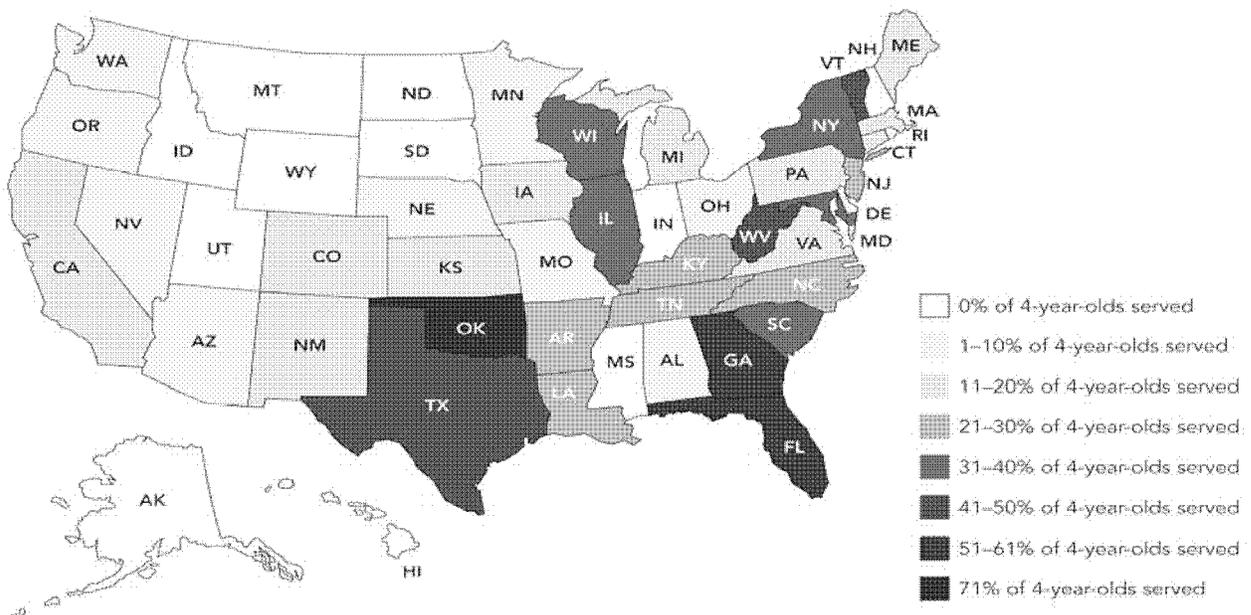
1. Continued expansion of the New Mexico PreK initiative is warranted. New Mexico PreK produces meaningful and statistically significant positive impacts on children's early language, literacy, and math skills, but fewer than 5,000 (roughly 17 percent) of the approximately 29,000 4-year-olds in New Mexico are currently enrolled. By further increasing enrollment in its PreK initiative, New Mexico has a clear opportunity to show leadership in the western U.S., where state preschool enrollment levels have traditionally been low.
2. Some aspects of classroom quality in the New Mexico PreK program are in need of improvement. Measures of general classroom quality show that New Mexico PreK classrooms are above average. However, more specialized measures show that support for early language and literacy is fair and support for early mathematics is poor. As New Mexico PreK continues to expand, it is important for the state to maintain and possibly strengthen current work with PreK providers so that they can continue to improve children's learning environments in the key content areas of language, literacy, and math.
3. Expanded professional development and teacher training opportunities are keys to improving classroom quality, and simultaneously offer the potential to bolster child outcomes associated with PreK participation. Investments in high-quality staffing are a good solution to issues of classroom quality. One potentially valuable investment would be to ensure higher education has the capacity to enable every lead teacher in New Mexico PreK to obtain a bachelor's degree with strong specialized training in preschool education.

## STATE-FUNDED PRESCHOOL PROGRAMS IN CONTEXT

Most children in the U.S. now have their first school experiences in a preschool classroom rather than in kindergarten. State preschool programs have played a major role in the expansion of early education during the past 20 years. By 2008, state pre-K programs were operating in 38 states, and served more than 1.1 million children nationwide using \$4.6 billion in state dollars (Barnett, Epstein, Friedman, Stevenson Boyd, & Hustedt, 2008). At age 4, one in four American children now attends a program that can be classified as state pre-K. Some states have committed to making state pre-K available to all 4-year-olds whose parents would like them to attend. Oklahoma has come closest to meeting this goal, with 71% of its 4-year-olds enrolled.

Despite many years of overall growth in state pre-K initiatives, there have been few research studies evaluating the statewide effectiveness of these programs. Among studies that do exist, few have been methodologically rigorous (Gilliam & Zigler, 2004). However, studies of well-known model preschool initiatives including the High/Scope Perry Preschool program, the Abecedarian Early Childhood Intervention program, and the Chicago Child-Parent Centers show that these types of programs produce economic benefits greatly outweighing their costs (Barnett, 1996; Masse & Barnett, 2002; Reynolds, Temple, Robertson, & Mann, 2002). Benefits have included higher achievement test scores, lower rates of special education placements and grade repetition, improved high school graduation rates, and reduced crime and delinquency rates.

FIGURE 1: PERCENT OF 4-YEAR-OLDS SERVED IN STATE PRE-K



## NEW MEXICO PRE-K IN CONTEXT

Established in 2005 through the work of Governor Bill Richardson, Lieutenant Governor Diane Denish, and the New Mexico Legislature, New Mexico PreK is among the most recently started state prekindergarten initiatives nationwide. New Mexico PreK is designed to serve 4-year-olds during the year before kindergarten. PreK classrooms feature maximum class sizes of 20 with staff-child ratios of 1:10, and offer a variety of comprehensive and family support services in addition to their educational emphasis. Standards requiring lead teachers to have bachelor's degrees and licensure in early childhood education are being phased in, such that teachers not yet meeting the requirements must make ongoing progress toward meeting them within five years.

Administrative responsibility for New Mexico PreK is shared by the state Children, Youth and Families Department (CYFD) and the state Public Education Department (PED). Thus, while PED and CYFD sites participate in a single, unified PreK initiative, in any program evaluation it is important to provide state-level summary data as well as data disaggregated by each sponsoring agency.

### Growth in Funding and Number of New Mexico PreK Students Budgeted Since 2005

School Year	State Appropriation	Students Budgeted (% of New Mexico's 4-Year-Olds)
2005-2006	\$4,950,000	1,540 (5.8%)
2006-2007	\$7,990,000	2,194 (7.9%)
2007-2008	\$13,998,886	3,570 (12.8%)
2008-2009	\$19,290,300	4,745 (16.5%)
2009-2010 (anticipated)	\$19,842,400	4,963 (17.3%)

Note: Percentages of New Mexico's 4-year-olds were calculated based on U.S. Census Population Estimates for New Mexico, using data from the fall of each school year. As fall 2009 population estimates are not yet available, the percentage for the 2009-2010 school year was calculated based on the fall 2008 population estimate.

New Mexico PreK is one of a number of early childhood initiatives funded by the State of New Mexico. Other programs include a home visiting initiative; a state supplement to the federal Head Start program; and the K-3 Plus initiative, which offers participants 25 additional instructional days each year from kindergarten through third grade. These state initiatives are complementary efforts providing a variety of supports to young children and their families.

The New Mexico PreK initiative has grown quickly since it launched during the 2005-2006 school year, due to annual increases in state fiscal appropriations each year that have allowed for increases in enrollment. This growth in enrollment is particularly notable given that the western United States has tended to lag behind other regions of the country in making state prekindergarten programs available to children (Barnett, Hustedt, Hawkinson, & Robin, 2006). Among the 13 states designated as being in the West region by the U.S. Census, only seven currently offer a state prekindergarten program, and California, Colorado, and New Mexico are the only states where enrollment has exceeded 10 percent of the 4-year-old population in recent years.

Like the New Mexico PreK initiative itself, this research study began during the 2005-2006 school year. As a result, we are able to provide information about the effectiveness of New Mexico PreK in its initial years of operation, and during a period of rapid expansion. This study is one of several rigorous state preschool evaluations recently conducted by the National Institute for Early Education Research (NIEER) in states across the U.S. Each of these studies uses similar methodologies and measures to estimate the impacts of prekindergarten on young children's academic skills.

The comprehensive New Mexico PreK program evaluation has included four main components:

1. Examining the benefits received by children who participate in PreK
2. Investigating PreK classroom quality
3. Conducting an analysis of the economic impacts of the PreK program
4. Gathering information about parent and provider perceptions toward the PreK initiative through focus groups

Findings from each component are summarized in this final report on the initial four-year evaluation of the New Mexico PreK initiative.

## KEY RESEARCH QUESTIONS: CHILD AND CLASSROOM DATA

(b)(6)

The New Mexico PreK Evaluation was designed to provide information about the impacts of the PreK program on children, as well as information about the quality of PreK classrooms.

Specifically, the child and classroom components of the study addressed the following research questions.

- Compared to children who do not attend New Mexico PreK, how do PreK participants benefit in terms of:
  - \* Language development?
  - \* Math skills?
  - \* Literacy skills?
  
- What is the quality of New Mexico PreK classrooms in terms of:
  - \* Overall classroom quality?
  - \* Classroom support for early language and literacy?
  - \* Classroom support for mathematics?
  
- When data from CYFD and PED PreK programs are examined separately, what are the benefits to children and what is the quality of classrooms?

## CHILD AND CLASSROOM MEASUREMENT TOOLS

We gathered data using standard batteries of child assessment and classroom observation tools in PreK programs across the state of New Mexico. These instruments provide a breadth of information across key content areas and are regularly used in other research studies. Each child assessment instrument includes both English and Spanish versions so that children can be assessed in their best testing language.

Child assessment tools, and their areas of emphasis, include:

- The *Peabody Picture Vocabulary Test, 3<sup>rd</sup> Edition* (PPVT-III; Dunn & Dunn, 1997): vocabulary knowledge
- The *Woodcock-Johnson Tests of Achievement, 3<sup>rd</sup> Edition* (WJ-III; Woodcock, McGrew & Mather, 2001) Subtest 10 Applied Problems: mathematical skills
- The *Test of Preschool Early Literacy* (TOPEL; Lonigan, Wagner, Torgesen, & Rashotte, 2007) Print Knowledge subtest: early literacy. Prior to publication of the TOPEL, we used an earlier version of this instrument known as the Pre-CTOPPP (Lonigan, Wagner, Torgesen, & Rashotte, 2002).

Classroom observation tools, and their areas of emphasis, include:

- The *Early Childhood Environment Rating Scale – Revised* (ECERS-R; Harms, Clifford, & Cryer, 2005): overall classroom quality
- The *Support for Early Literacy Assessment* (SELA; Smith, Davidson, & Weisenfeld, 2001): practices that support early language and literacy
- The *Preschool Classroom Mathematics Inventory* (PCMI; Frede, Weber, Hornbeck, Stevenson Boyd, & Colon, 2005): materials and methods used to support math skills

All data for the New Mexico PreK Evaluation were collected by New Mexico-based child assessors and classroom observers who received in-depth instruction from expert trainers based at NIEER. Child assessment data were collected in fall of 2006, 2007, and 2008; classroom observation data were collected in the second half of each school year. Results specific to each content area investigated through our child assessment and classroom observation tools are presented on the pages that follow.

## ESTIMATING THE IMPACTS OF NEW MEXICO PRE-K

Estimates of the effects of the New Mexico PreK initiative on 4-year-old participants are based on a sophisticated statistical approach known as the regression-discontinuity design (RDD). A typical approach in state prekindergarten evaluations is to estimate the effects of an initiative by comparing test scores of children who attended the PreK program with scores of similar children who did not. However, as programs become more widely available, it is more difficult to find a comparable group of children who did not attend PreK. Even where programs target only a subset of children, such as those from low-income families, the issue of *selection bias* remains. Simply put, children who attend preschool are different from children who do not. Preschool programs targeting specific groups of children create these differences, but differences also come about because only some parents choose to enroll their children. In sum, children who attend state prekindergarten programs differ from those who do not because programs select children and families select programs.

Our estimates of the impacts of PreK address selection bias by comparing two groups of children, where children in both groups attended the New Mexico PreK initiative. The comparisons rely on New Mexico's use of a stringent cut-off date for eligibility for PreK and kindergarten (September 1). The eligibility cut-off date can be used to define two groups of children needed for this study: a group of children just beginning PreK and a group of children who already completed PreK. This concept is easier to understand by providing an extreme example: consider two children who differ only in that one was born the day before the age cut-off and the other the day after. When both are about to turn 5 years old the slightly younger child will enter PreK and the slightly older child will enter kindergarten having already completed PreK. If both children are tested at that time, the difference in their scores provides an unbiased estimate of effect of PreK. If only children with birthdays one day on either side of the age cut-off were included in a study, the potential sample size would be too small. However, the approach can be applied to wider age ranges around the cut-off. All children entering kindergarten having completed New Mexico PreK, and all children beginning New Mexico PreK the same year, can be included in our analyses.

During the past few years, the RDD approach has been used to estimate the impacts of state-funded prekindergarten programs in a number of states, most notably Oklahoma (Gormley, Gayer, Phillips, & Dawson, 2005). It was first possible to use this approach in New Mexico in fall 2006 – when children who participated in the initial year of New Mexico PreK entered kindergarten. The RDD approach was repeated again with new samples of New Mexico PreK participants in fall 2007 and fall 2008.

## DESCRIBING OUR SAMPLES

The table below provides information about children who participated in our study. These samples of children correspond to RDD analyses for the 2005-2006, 2006-2007, and 2007-2008 school years, respectively, and results from those analyses are presented immediately following the table. In each year of the study, ethnicity breakdowns for our sample closely mirrored those for the New Mexico PreK initiative as a whole.

### Demographic Information for Participants in This Study

	Year 1	Year 2	Year 3
Percentage female	48.8%	53.8%	53.7%
Home language			
English	80.4%	77.2%	80.5%
Spanish	14.1%	13.9%	13.3%
Both English and Spanish	3.5%	7.7%	5.5%
Other/Not specified	2.0%	1.2%	0.7%
Ethnicity			
Hispanic	56.3%	57.7%	58.0%
White	10.4%	18.4%	24.2%
Native American	27.5%	19.1%	14.0%
African American	1.4%	1.6%	1.6%
Other/Not specified	4.5%	3.3%	2.3%
Total sample size for analysis ( <i>N</i> )	856	893	1,299

Note: Year 1 data were used to estimate the impacts of New Mexico PreK during the 2005-2006 school year, Year 2 data were used to estimate the impacts of New Mexico PreK during the 2006-2007 school year, and Year 3 data were used to estimate the impacts of attending New Mexico PreK during the 2007-2008 school year. Some totals do not add to 100 percent due to rounding.

## IMPACTS OF PRE-K ON CHILDREN'S LANGUAGE SKILLS

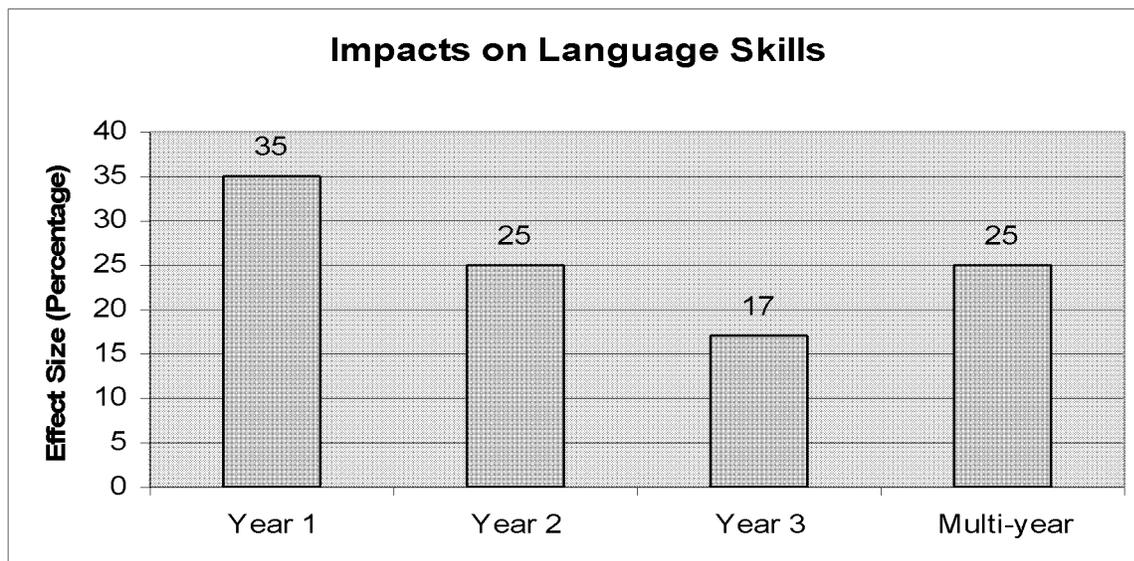
The PPVT-III was used in the New Mexico PreK Evaluation to gauge children's knowledge of spoken vocabulary words. All children in this study were initially administered the PPVT, regardless of their home language, to get a sense of their receptive vocabulary skills in English. Children who spoke some Spanish were also subsequently administered the *Test de Vocabulario en Imagenes Peabody* (TVIP; Dunn, Padilla, Lugo, & Dunn, 1986). We measured the impacts of PreK participation on children's skills at kindergarten entry in fall 2006, fall 2007, and fall 2008. Fall 2006 data help us understand the impacts of PreK participation in the 2005-2006 school year, fall 2007 data speak to the impacts of PreK participation in the 2006-2007 school year, and fall 2008 data speak to the impacts of PreK participation in the 2007-2008 school year. At the conclusion of this initial phase of the study, we also conducted multi-year analyses measuring the impacts of PreK participation across the first three years of the initiative. These multi-year analyses are more statistically powerful because they incorporate a larger sample.

(b)(6)

We found that:

- Children who participated in New Mexico PreK during the 2005-2006 school year scored 7.82 points higher on the vocabulary measure than children who did not participate. This increase was statistically significant.
- Children who participated in New Mexico PreK during the 2006-2007 school year scored 5.55 points higher on the vocabulary measure than children who did not participate. This increase was also statistically significant.
- Children who participated in New Mexico PreK during the 2007-2008 school year scored 3.42 points higher on the vocabulary measure than children who did not participate. This increase approached, but did not reach, statistical significance.
- Across the first three years of the PreK initiative, children who participated in New Mexico PreK scored an average of 5.44 points higher on the vocabulary measure than children who did not participate. This increase was statistically significant.

We also summarized our child outcome data from each year of the study using effect sizes, which help to standardize estimated effects of the PreK program across different types of measures and across successive years of the study. These figures represent percentage improvement, relative to the standard deviation for the control group. The chart below summarizes effect sizes for children’s early language (receptive vocabulary) skills, with estimates for each year of our data as well as an overall estimate encompassing data from all three years of the study.



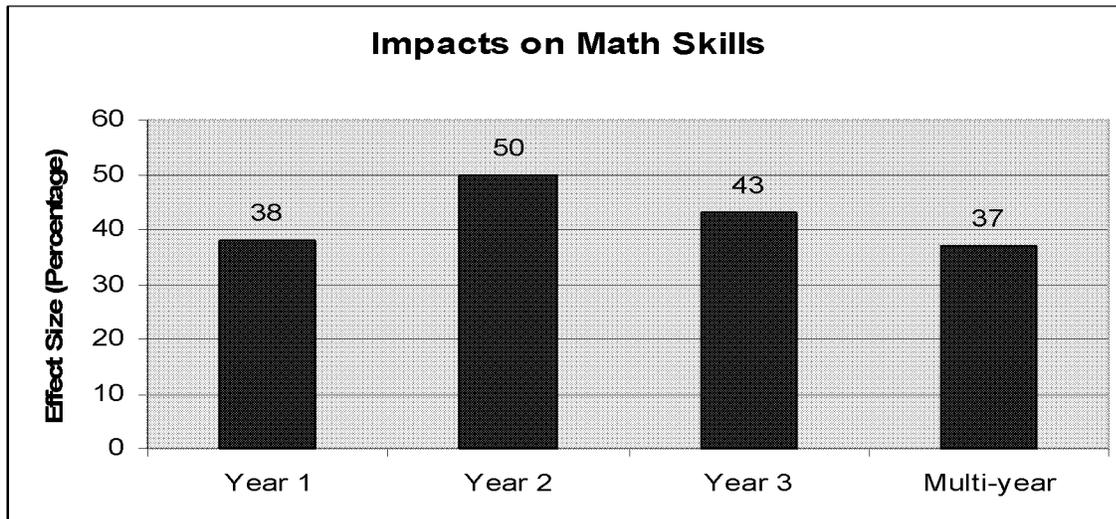
Note: Year 1 shows the impact of attending New Mexico PreK during the 2005-2006 school year, Year 2 shows the impact of attending New Mexico PreK during the 2006-2007 school year, and Year 3 shows the impact of attending New Mexico PreK during the 2007-2008 school year. All data are based on PPVT-III raw score results.

## IMPACTS OF PRE-K ON CHILDREN’S MATH SKILLS

The WJ-III was used to gauge children’s early math skills. For children whose best testing language was Spanish, the companion *Bateria Woodcock-Munoz Pruebas de Aprovechamiento – Revisado* (Woodcock & Munoz, 1990) *Prueba 25 Problemas Aplicados* was used instead. We found that:

- Children who participated in New Mexico PreK during the 2005-2006 school year scored 1.64 points higher on the mathematics measure than children who did not participate. This increase was statistically significant.
- Children who participated in New Mexico PreK during the 2006-2007 school year scored 2.26 points higher on the mathematics measure than children who did not participate. This increase was statistically significant.
- Children who participated in New Mexico PreK during the 2007-2008 school year scored 1.86 points higher on the mathematics measure than children who did not participate. This increase was statistically significant.
- Across the first three years of the PreK initiative, children who participated in New Mexico PreK scored an average of 1.63 points higher on the mathematics measure than children who did not participate. This increase was also statistically significant.

The chart below summarizes effect sizes for children’s math skills.



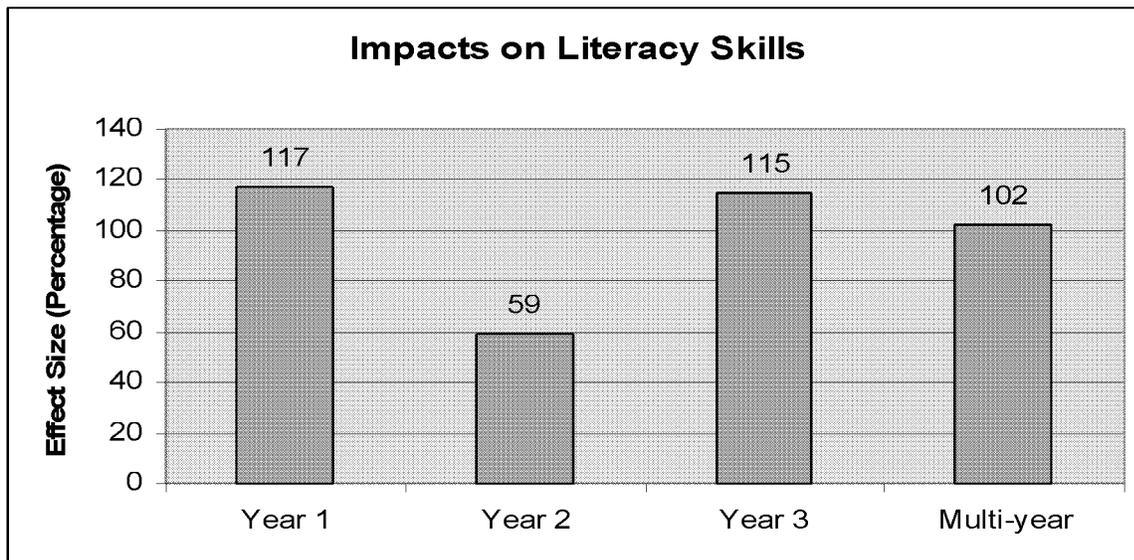
Note: Year 1 shows the impact of attending New Mexico PreK during the 2005-2006 school year, Year 2 shows the impact of attending PreK during 2006-2007, and Year 3 shows the impact of attending PreK during 2007-2008. The impacts on math skills using our multi-year data set are somewhat smaller than estimates for each individual year, due to variations in the statistical models selected as most appropriate for different years of the study. Data are based on raw scores from the WJ-III Applied Problems subtest.

## IMPACTS OF PRE-K ON CHILDREN’S LITERACY SKILLS

The TOPEL (or its forerunner, the Pre-CTOPPP) was used to gauge children’s early literacy skills. For children whose best testing language was Spanish, the appropriate companion version remains the Spanish version of the Pre-CTOPPP. We found that:

- Children who participated in New Mexico PreK during the 2005-2006 school year scored 26 percent higher on the early literacy measure than children who did not participate. This increase was statistically significant.
- Children who participated in New Mexico PreK during the 2006-2007 school year scored 14 percent higher on the early literacy measure than children who did not participate. This increase was statistically significant.
- Children who participated in New Mexico PreK during the 2007-2008 school year scored 28 percent higher on the early literacy measure than children who did not participate. This increase was statistically significant.
- Across the first three years of the PreK initiative, children who participated in New Mexico PreK scored an average of 24 percent higher on the early literacy measure than children who did not participate. This increase was statistically significant.

The chart below summarizes effect sizes for children’s early literacy skills.



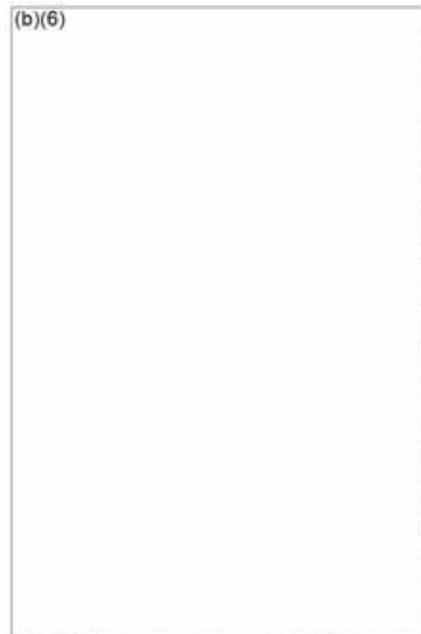
Note: Year 1 shows the impact of attending New Mexico PreK during the 2005-2006 school year, Year 2 shows the impact of attending New Mexico PreK during 2006-2007, and Year 3 shows the impact of attending New Mexico PreK during 2007-2008. Data are based on percentages of correct answers on the Pre-CTOPPP Print Awareness subtest (Year 1) or TOPEL Print Knowledge subtest (Years 2 and 3).

## IMPACTS OF PRE-K AT CYFD AND PED SITES

In the final year of this initial evaluation of New Mexico PreK, we increased our sample sizes to allow for separate statistical estimates of the impacts of PreK programs offered by CYFD and those offered by PED. It is important to view New Mexico PreK as a single statewide initiative regardless of the lead state agency responsible for any given classroom. However, these disaggregated data allow us to more closely examine the impacts of PreK sites administered by each agency.

Large samples are required in order to detect a statistical effect for these separate analyses, and the 2007-2008 school year was the first in which we had sufficiently large CYFD and PED samples. The table on the following page provides more demographic information about study participants attending PED and CYFD sites. As noted previously, our demographic breakdowns show that ethnicities of children in our overall, aggregated samples closely mirror those in the New Mexico PreK initiative as a whole. Based on demographic breakdowns for the CYFD and PED samples during the 2007-2008 school year, the two agencies appear to serve slightly different populations of children.

Also, although the 2007-2008 school year is the only school year where there were enough participants in the study to perform adequate disaggregated analyses, we conducted additional analyses using a multi-year data set that combines results across each of the first three years of New Mexico PreK. These analyses have more statistical power, due to the larger sample sizes.



### Demographic Information for PED and CYFD PreK Participants (2007-2008)

	PED	CYFD	Overall
Percentage female	54.7%	52.5%	53.7%
Home language			
English	78.1%	83.6%	80.5%
Spanish	16.2%	9.9%	13.3%
Both English and Spanish	5.1%	5.7%	5.5%
Other/Not specified	0.6%	0.8%	0.7%
Ethnicity			
Hispanic	58.8%	57.1%	58.0%
White	16.7%	32.3%	24.2%
Native American	21.1%	6.2%	14.0%
African American	1.5%	1.8%	1.6%
Other/Not specified	2.1%	2.4%	2.3%
Total sample size for analysis ( <i>N</i> )	684	609	1,299

Note: Some totals do not add to 100 percent due to rounding. The overall totals include all children in our sample in both PED and CYFD programs. For six children, insufficient information was recorded to allow children to be classified as attending a PED or CYFD site.

Findings for children's language skills show that:

- Children who participated in PED programs during the 2007-2008 school year scored 2.70 points higher on the vocabulary measure than children who did not participate. This increase was not statistically significant.
- Children who participated in CYFD programs during the 2007-2008 school year scored 5.38 points higher on the vocabulary measure than children who did not participate. This increase approached, but did not reach, statistical significance.

- Across the first three years of the PreK initiative, children who participated in PED programs scored an average of 5.38 points higher on the vocabulary measure than children who did not participate. Children who participated in CYFD programs scored an average of 6.27 points higher. The increases for both PED and CYFD programs approached statistical significance.

Findings for children's mathematics skills show that:

- Children who participated in PED programs during the 2007-2008 school year scored 1.39 points higher on the mathematics measure than children who did not participate. Children who participated in CYFD programs scored an average of 2.73 points higher. The increases for both PED and CYFD programs were statistically significant.
- Across the first three years of the PreK initiative, children who participated in PED programs scored an average of 1.44 points higher on the math measure than children who did not participate. Children who participated in CYFD programs scored an average of 1.91 points higher. The increases for both PED and CYFD programs were statistically significant.

Findings for children's early literacy skills show that:

- Children who participated in PED programs during the 2007-2008 school year scored 29 percent higher on the early literacy measure than children who did not participate. Children who participated in CYFD programs during the 2007-2008 school year scored 28 percent higher on the early literacy measure than children who did not participate. The increases for both PED and CYFD programs were statistically significant.
- Across the first three years of the PreK initiative, children who participated in PED programs scored an average of 26 percent higher on the early literacy measure than children who did not participate. Children who participated in CYFD programs scored an average of 23 percent higher. The increases for both PED and CYFD programs were statistically significant.

Overall, the impacts for CYFD and PED programs were very similar, both for the 2007-2008 school year and in analyses spanning the first three years of the New Mexico PreK initiative. This was the case across all three content areas examined in this study— young children's language, mathematics, and literacy skills.

## CHILDREN'S GAINS DURING THE 2008-2009 SCHOOL YEAR

As mentioned earlier, our RDD approach relies on having a group of children who have already completed PreK and are entering kindergarten. Due to this fact, it was not possible to estimate the impacts of participating in the New Mexico PreK initiative during the 2008-2009 school year before the completion of this evaluation cycle. Instead, we collected beginning- and end-of-school-year data on a sample of PreK children in fall 2008 and spring 2009. The results below provide some preliminary information about the gains made by children during the course of the 2008-2009 school year, although this methodology does not allow us to determine the degree to which those gains are attributable to PreK.

### Gains Made by Children During the 2008-2009 School Year

	Fall 2008 Scores	Spring 2009 Scores
Language (PPVT-III Raw Score)		
PED sites	42.99	57.12
CYFD sites	48.28	61.10
New Mexico PreK Overall	45.43	58.96
Math (WJ-III Applied Problems Raw Score)		
PED sites	9.03	12.91
CYFD sites	10.23	13.93
New Mexico PreK Overall	9.58	13.38
Literacy (TOPEL Print Knowledge % Correct)		
PED sites	26.66	53.61
CYFD sites	34.56	56.27
New Mexico PreK Overall	30.29	54.84

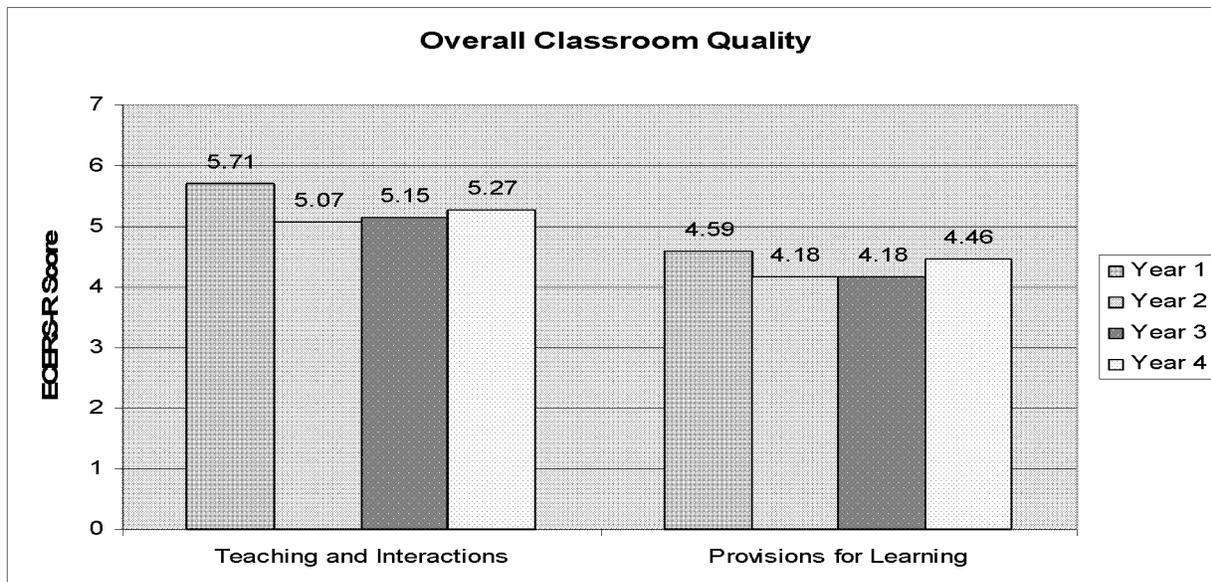
Note: All scores for each measure are estimated mean scores. Overall sample sizes ranged from 518 children to 526 children depending on the specific measure.

## OVERALL CLASSROOM QUALITY

Overall classroom quality was measured using the ECERS-R, a standardized measure that is commonly used in evaluation studies. The ECERS-R focuses on aspects of the classroom environment in the areas of space and furnishings, personal care, language and reasoning, activities, interaction, program structure, and parents and staff. Analyses of data from the ECERS-R frequently employ a two-factor model. Our analyses use the following factors established in previous research (Clifford et al., 2005).

- Factor 1 – *Teaching and Interactions* – aspects of the classroom environment such as general supervision, using language both to develop reasoning and more informally, and staff-child interactions and interactions among children
- Factor 2 – *Provisions for Learning* – aspects of the classroom environment such as room arrangement, schedule, gross motor equipment, and dramatic play

The ECERS-R is scored on a 7-point scale where “1” indicates inadequate quality, “3” indicates minimal quality, “5” indicates good quality, and “7” indicates excellent quality. We measured classroom quality in PreK programs across the state during the second half of each school year in 2006, 2007, 2008, and 2009. These data allow us to examine trends in program quality over time, as the PreK initiative tripled in size. Results for Factor 1 and Factor 2 across each year of the study are shown below. Scores for Factor 1 were above a “5” each year, with quality exceeding the “good” level. Scores for Factor 2 were above a “4” each year, with quality approaching the “good” level.



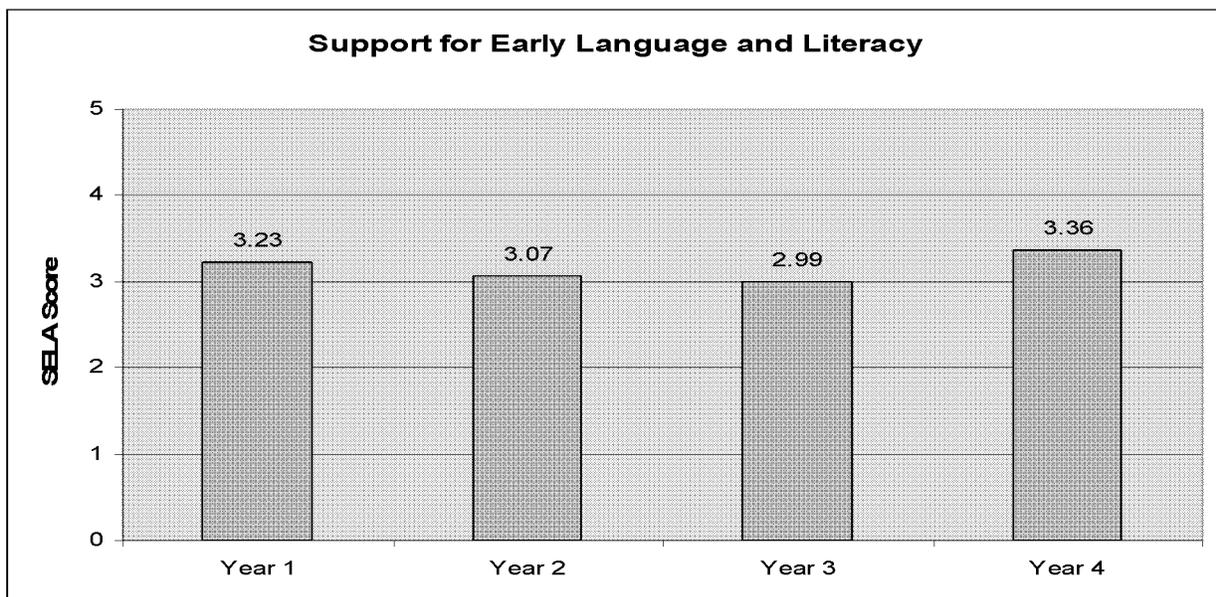
Note: Year 1 represents the 2005-2006 school year, Year 2 represents the 2006-2007 school year, Year 3 represents the 2007-2008 school year, and Year 4 represents the 2008-2009 school year.

## CLASSROOM SUPPORT FOR EARLY LANGUAGE AND LITERACY

Classroom support for early language and literacy was measured using the SELA, which examines the quality of the preschool literacy environment and instruction. The SELA provides a more detailed assessment of teacher practices supporting language and literacy than the more global ECERS-R measure. This tool has six subscales: The Literate Environment, Language Development, Knowledge of Print/Book Concepts, Phonological Awareness, Letters and Words, and Parent Involvement.

The SELA is scored on a 5-point scale, where “1” indicates very low quality, “2” indicates poor quality, “3” indicates fair or mediocre quality, “4” indicates good quality, and “5” represents the ideal.

The SELA was administered in New Mexico PreK programs across the state on the same dates that classroom observers administered the ECERS-R, during the second half of each school year. Average SELA scores from each year of the study are shown in the chart below. For each year of the study New Mexico PreK classrooms received SELA scores that were very near the midpoint of the 5-point scale, indicating fair to mediocre support for early language and literacy. However, if the Year 4 scores represent a trend, then the classrooms are heading into the good range.



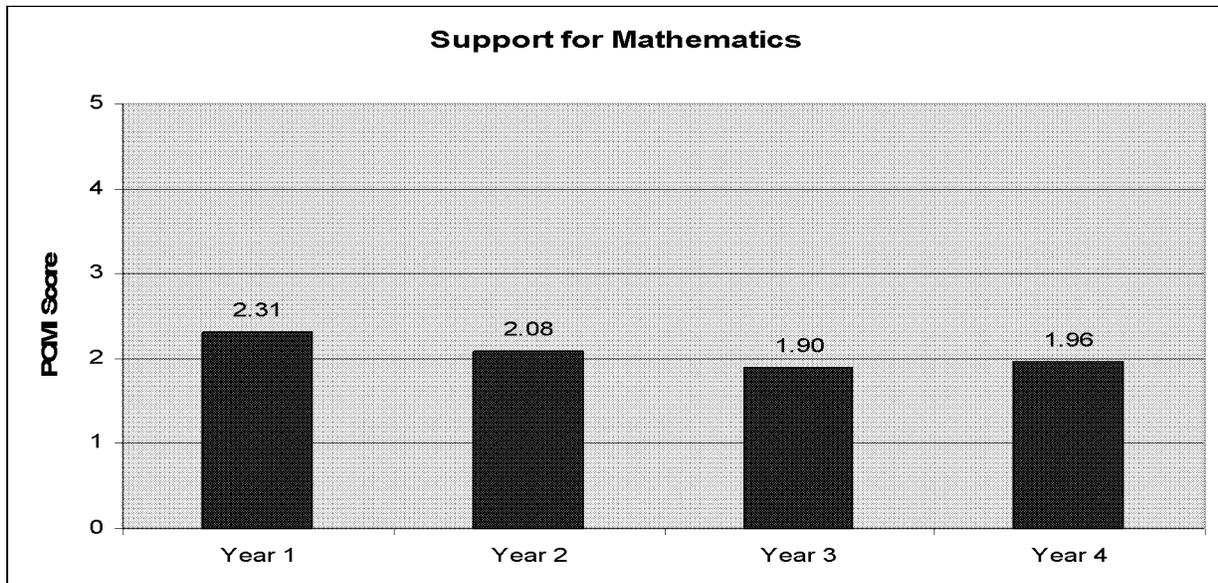
Note: Year 1 represents the 2005-2006 school year, Year 2 represents the 2006-2007 school year, Year 3 represents the 2007-2008 school year, and Year 4 represents the 2008-2009 school year.

## CLASSROOM SUPPORT FOR MATHEMATICS

Classroom support for the development of children’s early math skills was measured using the PCMI. This tool measures the materials and strategies used in the classroom to support children’s early mathematical concept development, including counting, comparing, estimating, recognizing number symbols, classifying, seriating, geometric shapes, and spatial relations.

Similar to the SELA, the PCMI is scored on a 5-point scale. On this scale, “1” indicates very low quality, “2” indicates poor quality, “3” indicates fair or adequate quality, “4” indicates good quality, and “5” represents the ideal.

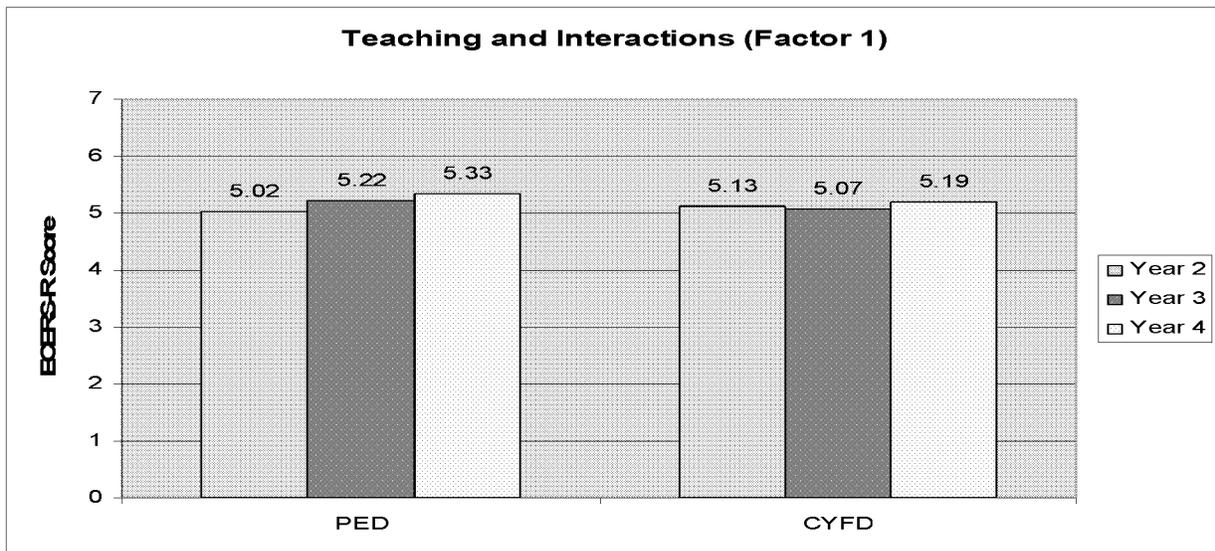
The PCMI was administered in New Mexico PreK programs across the state on the same dates that our classroom observers administered the ECERS-R and SELA, during the second half of each school year. Average PCMI scores from each year of the New Mexico PreK Evaluation are shown in the chart below. For each year of the study, New Mexico PreK classrooms received scores that were near “2” and indicative of poor quality on the 5-point PCMI scale.



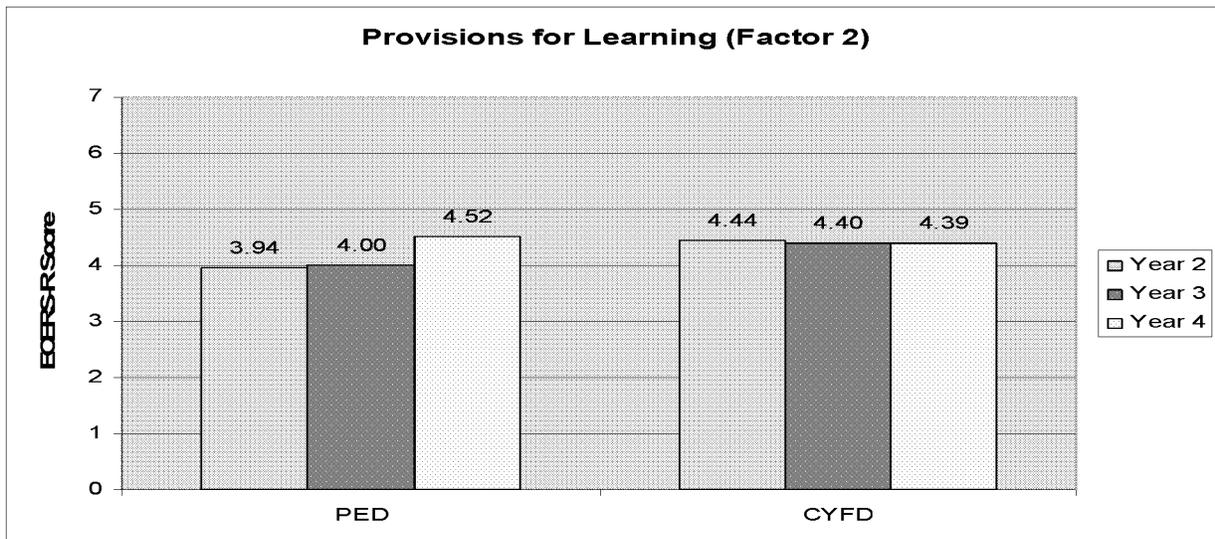
Note: Year 1 represents the 2005-2006 school year, Year 2 represents the 2006-2007 school year, Year 3 represents the 2007-2008 school year, and Year 4 represents the 2008-2009 school year.

## CLASSROOM QUALITY AT PED AND CYFD SITES

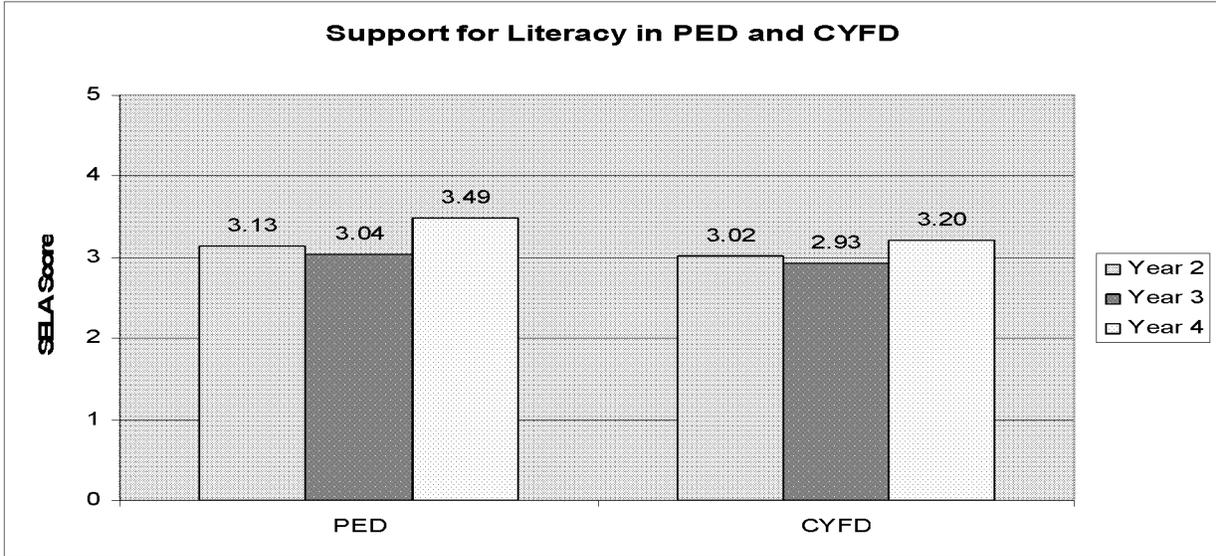
In Years 2 through 4 of the New Mexico PreK Evaluation, classroom quality was also examined separately for New Mexico PreK programs administered by CYFD and those administered by PED. Results for each of the classroom observation tools are shown in the figures in this section. In general, overall classroom quality, support for early language and literacy, and support for mathematics were fairly similar across both CYFD and PED programs.



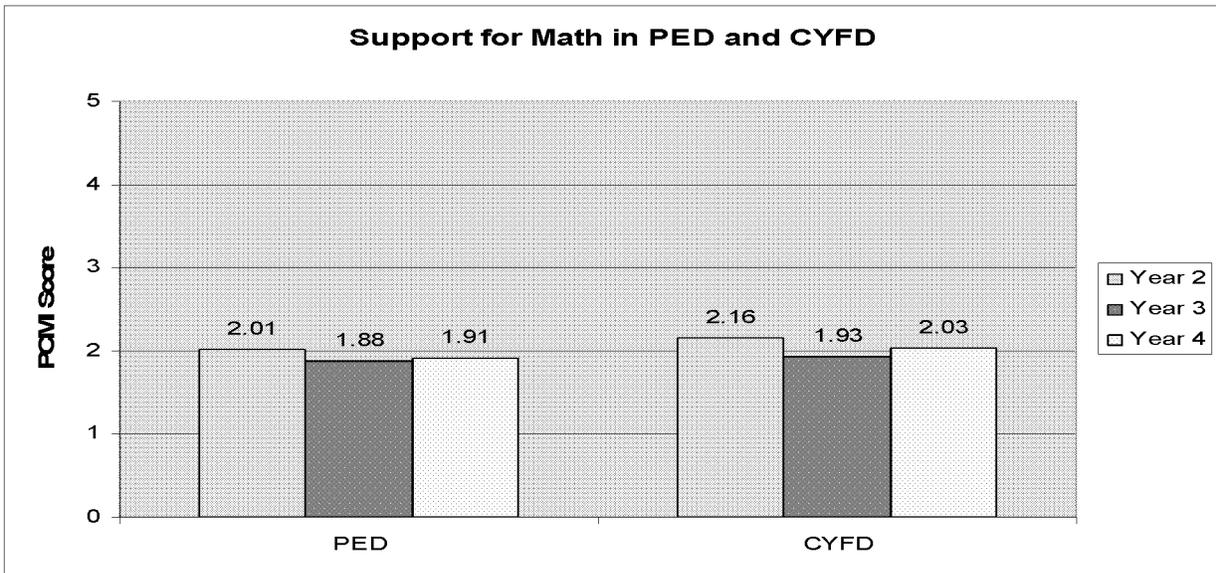
Note: Year 2 represents the 2006-2007 school year, Year 3 represents the 2007-2008 school year, and Year 4 represents the 2008-2009 school year.



Note: Year 2 represents the 2006-2007 school year, Year 3 represents the 2007-2008 school year, and Year 4 represents the 2008-2009 school year.



Note: Year 2 represents the 2006-2007 school year, Year 3 represents the 2007-2008 school year, and Year 4 represents the 2008-2009 school year.



Note: Year 2 represents the 2006-2007 school year, Year 3 represents the 2007-2008 school year, and Year 4 represents the 2008-2009 school year.

## TEACHERS IN THE NEW MEXICO PRE-K CLASSROOMS

Below, we provide additional information about the New Mexico PreK teachers who participated in our study. These data suggest that there were few changes to the average qualifications of New Mexico PreK teachers between the 2005-2006 school year and the 2008-2009 school year.

### New Mexico PreK Teacher Demographics

	Year 1	Year 2	Year 3	Year 4
Mean number years teaching preschool	5.76	7.47	6.15	5.31
Highest degree earned				
Less than Bachelor's degree	26.7%	20.2%	27.1%	27.4%
Bachelor's degree	42.7%	39.4%	45.8%	46.8%
Master's degree or higher	18.7%	19.1%	16.8%	15.1%
Not specified	12.0%	21.3%	10.3%	10.8%
Percentage certified in early childhood	22.7%	38.3%	43.9%	32.3%
Number of classrooms and teachers in sample (N)	75	94	107	139

Note: Year 1 represents the 2005-2006 school year, Year 2 represents the 2006-2007 school year, Year 3 represents the 2007-2008 school year, and Year 4 represents the 2008-2009 school year. Some totals do not add to 100 percent due to rounding.

## ECONOMIC IMPACTS OF UNIVERSAL PRE-K IN NEW MEXICO

In addition to examining impacts of New Mexico PreK on children and PreK classroom quality, this study also included an economic impact analysis. The economic impact analysis was conducted during the 2006-2007 school year, and was modeled on an economic impact analysis of state-funded preschool in California (Karoly & Bigelow, 2005). The approach was based on a participatory action research (PAR) approach to evaluate the costs and benefits of diverse longitudinal services and outcomes for children who participate in New Mexico PreK. Data were obtained for regular, special, and higher education costs as well as costs associated with juvenile detention and adult criminal behavior. The study also included estimates from child protective services related to the cost of services for foster care and other services associated with child abuse and neglect. Child care cost and wages were estimated based on New Mexico labor force data. Where data from New Mexico were unavailable, data were obtained from the literature and federal databases to estimate the benefits that accrue from investing in state-funded prekindergarten.

The distribution of benefits and costs to local, state, and federal government and to participants and society as a whole was analyzed to determine the cost-benefit ratio for New Mexico and for the U.S. In addition, adjustments were made for inflation and discounting so that the net present value of the investment in the program was estimated, along with the internal rate of return. The underlying effects or impacts were based on the Chicago Child Parent Center Study (CPC) and included a variety of educational attainment outcomes, juvenile delinquency, adult crime, health outcomes, and child welfare measures. Weights were calculated using New Mexico demographic data – particularly those reflecting New Mexico’s unique character – to adjust the CPC impacts to reflect the realities of New Mexico’s children and families. A sensitivity analysis was also completed to estimate the costs and benefits to New Mexico and to the U.S. under a variety of assumptions. These data provided a range of benefit-cost ratios that would be expected under more and less conservative analytical assumptions – such as the percentage of benefits that accrue for high- and low-risk students who participate in New Mexico PreK.

Results of this analysis are summarized in the table on the next page. The findings show strong support for the New Mexico PreK initiative.

**Present Value Costs and Benefits for Universal Preschool in New Mexico in the Baseline Model (In Dollars Per Child and Dollars Per Cohort of 4-Year-Olds)**

Source of Costs or Benefits	Benefits (Costs) to Society New Mexico Only		Benefits (Costs) to Society U.S. Total	
	Dollars Per Child	Dollars Per Cohort (Thousands)	Dollars Per Child	Dollars Per Cohort (Thousands)
Program costs	-2,961	-62,181	-2,961	-62,181
Program benefits				
Education outcomes	889	18,669	1,174	24,654
Child welfare outcomes	114	2,394	190	3,990
Juvenile crime outcomes	1,831	38,451	1,831	38,451
Value of child care	2,272	47,712	2,272	47,712
College attendance	-113	-2,373	-113	-2,373
Adult crime outcome	932	19,572	932	19,572
Labor market earnings	7,771	163,191	10,845	227,745
Health	1,115	23,415	1,137	23,877
Total benefits	14,811	311,031	18,268	383,628
Net benefits	11,850	248,850	15,307	321,447
Benefit-Cost Ratio (\$/\$1)		5.00		6.17
Internal Rate of Return (%)		18.1%		22.3%

SOURCE: Authors' calculations based on cost-benefit table.

Notes: All amounts are in 2005 dollars and the present value of amounts over time where future values are discounted to age 4 of the participating child, using a 3 percent annual real discount rate. Dollars-per-cohort figures assume a cohort of 30,000 4-year-olds and a 70 percent preschool participation rate. Numbers may not add because of rounding.

## FINDINGS FROM THE ECONOMIC IMPACT ANALYSIS

There are good economic reasons to invest in New Mexico PreK and the children it serves. The key findings of the economic impact analysis include:

1. **Prekindergarten services can improve educational outcomes.** For every year that PreK is provided to New Mexico's 4-year-olds there are:
  - 1,213 fewer children ever retained in grade
  - 803 fewer children ever using special education services
  - 5,513 fewer child years of special education service use
  - 882 more high school graduates
  - 2,599 more child years of education completed
  
2. **Prekindergarten services can be cost-beneficial.** If high-quality preschool services are delivered as outlined in the New Mexico service guidelines that were developed in collaboration among PED, CYFD, the Governor's Office, and the Department of Finance and Administration:
  - The return on a dollar investment is estimated to be at least \$3.72 and may be as high as \$10.53 in real dollars.
  - For every dollar spent on New Mexico PreK services we estimate, using the baseline assumptions, that there will be \$6.17 per child in benefits generated from the program.
  - Five dollars in benefits are estimated to be generated to New Mexico for every dollar invested in New Mexico PreK.
  - The net present value to society of a one-year high-quality preschool program in New Mexico is estimated at \$15,307.
  - New Mexico PreK generates an estimated \$11,850 in net present value benefits to New Mexico society (i.e., New Mexico participants and taxpayers), for each annual cohort of children, assuming 70 percent of those eligible will participate in PreK.
  - These data conclude that New Mexico PreK participants:
    - Have better educational outcomes that will produce higher earnings.
    - Are less likely to engage in juvenile and adult criminal behavior.
    - Are less likely to be victims of abuse and neglect.
    - Are less likely to use welfare services, along with their families.
  
3. **Prekindergarten services can increase economic development.**
  - The real rate of return to New Mexico's state-funded prekindergarten program is estimated at 18.1 percent to New Mexico and 22.3 percent as a whole.

**4. States recognize the strong evidence and have responded by increasing their investment in prekindergarten services.**

- As noted previously, 38 states invested \$4.6 billion to serve more than 1.1 million children in 2008. Both enrollment and total state spending have been increasing steadily this decade. Enrollment and state spending have increased rapidly in New Mexico since the PreK initiative began in 2005.

Even the most conservative assumptions used in the analysis showed positive net benefits from investing in New Mexico PreK services. The strength and magnitude of these economic impacts have led researchers to conclude it is a public policy failure not to see early childhood as a top economic development issue in the United States. The return on prekindergarten investment is greater than other public and private investments that states undertake.

The benefit estimates are necessarily incomplete since they only include benefits measured in dollars and omit intangible benefits that are attributable to PreK. For example, benefits from reducing child abuse and neglect omit many of the intangible benefits from improved child well-being of participants. They also omit many benefits that accrue to the next generation of children born to participants and their parents.

Findings similar to those presented for New Mexico have been documented in other states. The impetus for expansion in state efforts to fund preschool is in part due to the compelling case that prekindergarten services are a sound public investment. There is a large body of high-quality economic research concluding that there are many positive, quantifiable dollar benefits from investing in children during their preschool years. The findings in this economic impact study reveal the benefits to New Mexico from expanded investments in the PreK Program.

## PARENT AND PROVIDER COMMUNITY FOCUS GROUPS

A final component of the New Mexico PreK evaluation involved conducting focus groups. Ten focus groups were completed in five different communities in New Mexico in Year 1, and 10 more were completed in Year 3 of the study. Five of the focus groups held each year were with families who had children enrolled in PreK and the other five were with PreK providers in the state. Focus groups were held in Gallup, Gadsden (Anthony), Roswell, Espanola, and Las Vegas.

In the focus groups we found the following perceptions by New Mexico citizens toward the PreK initiative.

*What is the purpose of New Mexico PreK?*

- Prepare children for school
- Fill a need for a free program available to all New Mexico's children and families
- Involve families in their child's learning and educational experience
- Involve families and provide family support for child's learning
- Develop social skills and positive attitudes toward learning
- Improve New Mexico's education standing
- Insure that children enter kindergarten ready to learn
- Improve long-term educational outcomes for children

*What are the perceived outcomes of New Mexico PreK?*

- State-funded PreK provides a needed service without stigma.
- PreK serves children who would not get services elsewhere.
- Families report dramatic gains in social and pre-academic skills.
- Overall level of teacher quality, training opportunities, and classroom experiences is high.
- Multi-cultural opportunities are available.
- Parents learn early how to help children learn and support their child's educational experiences.
- Children are better prepared for kindergarten academically and socially.
- Co-location with other programs (Head Start, child care) provides more comprehensive services/supports.
- Good state/community relationship is established.
- A early stable learning environment is provided.
- Children's health and nutrition are improved.

*What are recommendations for improving PreK?*

- Increase the number of PreK slots and classrooms available.
- Improve transportation/integration with child care for working families.
- Increase per-child funding; do not spread dollars “too thin.”
- Maintain quality teachers and high staff-child ratios.
- Maintain and increase support for materials and supplies.
- Encourage coordination of PreK with other services for families.
- Provide more in-house resources for family assistance like social work, health, parent liaisons to keep parents involved.
- Explore whether age 3 or 4 is a better age to start PreK and about whether services should be half- or full-day.
- Make PreK available to all families at no charge.

*How did perceptions in 2008 differ from those in 2006? In 2008, families reported more consistently that:*

- PreK services result in positive academic outcomes.
- Parent involvement activities are very valuable.
- PreK services should begin at age 3.
- PreK does not currently serve all who want to enroll.
- PreK services improve child’s success in school.

*What issues were different for families and providers?*

Families said:

- Providers should involve parents more.
- Five days per week gives them and their children a consistent schedule.
- They would like more one-on-one support from teachers.

Providers said:

- Some prefer four days a week to have a day for preparation.
- Parents should focus less on academic goals.
- Parent attendance is poor when parent involvement focuses on parent education and high when the focus is on the children.
- They value professional development opportunities such as release time and increased compensation.

## KEY RESULTS FROM THE NEW MEXICO PRE-K EVALUATION

In this section, we summarize key results from the cycle of the New Mexico PreK Evaluation conducted between 2005 and 2009. It is important to note that our findings are specific to the New Mexico PreK initiative and do not have implications for components of New Mexico's wider early childhood system that have different areas of emphasis, such as K-3 Plus.

Results from our child assessments show consistent benefits to children who participated in New Mexico PreK, compared to those who did not. Positive impacts of PreK were found across three content areas important to early academic success – language, literacy, and math. The rigorous research design used in this study allows us to attribute these gains in children's skills to their participation in New Mexico PreK. These overall findings are both statistically significant and meaningful.

Results from the most recent year of our study signal a decrease in average vocabulary scores for children attending successive years of the PreK initiative. During the 2007-2008 school year, unlike in previous school years, the impact of PreK on children's language skills did not reach statistical significance. In order to determine whether this potential trend is meaningful, further analyses will be needed, using data from additional school years as a new cycle of the New Mexico PreK Evaluation begins. There are no apparent trends over time for our other measures of children's academic skills. The effects of PreK on children's early literacy and mathematics skills were statistically significant for each year of the study.

Our classroom observation results provide more details about the quality of educational services offered in PreK classrooms. Overall classroom quality in the New Mexico PreK initiative has been good. Our analyses show that classrooms score highest on a Teaching and Interactions factor that measures aspects of the classroom environment including: general supervision, using language both to develop reasoning and more informally, and staff-child interactions and interactions among children. Classrooms score slightly lower, but still approach good quality, on a Provisions for Learning factor that focuses on aspects of the classroom environment such as room arrangement, schedule, gross motor equipment, and dramatic play.

In addition to investigating overall quality, we also examined classroom supports for early language and literacy, and for mathematics. New Mexico PreK classrooms provided an average level of support for early language and literacy, based on a measure focusing on both the environment for literacy and teaching activities related to

(b)(6)

language and literacy. Levels of support for early math were poor, based on a measure focusing on classroom materials and teaching activities related to mathematics.

Classroom quality scores on each of our three observation tools – covering overall classroom environment, language and literacy support, and mathematics support – were relatively stable across the four years of this study. However, in the first year of the study (2005-2006), scores for the mathematics tool and for the Teaching and Interactions factor of the overall quality measure reached levels that were not attained

in any other year of the study. This may be due to the smaller number of classrooms observed that year. In each successive year of the study, larger numbers of classrooms have been observed, allowing for more precise estimates of classroom quality and reducing the potential for error in our estimates.

Separate analyses conducted for programs operating in CYFD settings and programs operating in PED settings show that PreK programs operating in the two types of settings had similar types of impacts on children's language, literacy, and math skills. Likewise, classroom quality was similar regardless of whether programs were operating in CYFD or PED settings.

The economic impact analysis conducted as part of this evaluation suggests that there are good economic reasons to invest in New Mexico PreK and the children it serves. The benefits identified for New Mexico are based on the unique demographic characteristics of New Mexico's citizens and cost data that are specific to New Mexico. The New Mexico economic impact analysis shows that PreK can improve short- and long-term educational outcomes by reducing the numbers of children retained in grade, lowering the number of children eligible for special education, and increasing graduation rates. The economic impact analysis finds that an estimated \$5.00 in benefits is generated in New Mexico for every dollar invested in New Mexico PreK. The benefit to U.S. society is estimated at \$6.17 for every dollar invested in New Mexico PreK. It is estimated that New Mexico PreK participants will have better educational outcomes that produce higher earnings. They will be less likely to engage in criminal behavior, to be victims of abuse and neglect, and to use welfare services. The real rate of return to New Mexico's state-funded prekindergarten program is estimated at 18.1 percent to New Mexico and 22.3 percent as a whole.

Finally, results from our focus group research suggest that:

- Families and providers appreciated the focus groups as a way to have their voices heard.
- Participants are very supportive of PreK and want to see the program expanded.
- Families and providers reported seeing specific, tangible improvements in child academic and social outcomes for those who attend.
- Providers and families would like to see more funding for PreK to "fine tune" the program.
- Funding priorities for PreK included providing funds for more slots, improved teacher salaries and benefits, transportation services, and increased family involvement activities.
- Focus group members appreciated the resources already available for teacher and staff training, materials and supplies, and staff-child ratios.

## POLICY RECOMMENDATIONS

Based on evaluation data gathered during the first four years of operation for the New Mexico PreK initiative, we offer the following policy recommendations:

1. Continued expansion of the New Mexico PreK initiative is warranted. New Mexico PreK produces meaningful and statistically significant positive impacts on children's early language, literacy, and math skills, but fewer than 5,000 (roughly 17 percent) of the approximately 29,000 4-year-olds in New Mexico are currently enrolled. By further increasing enrollment in its PreK initiative, New Mexico has a clear opportunity to show leadership in the western U.S., where state preschool enrollment levels have traditionally been low.
2. Some aspects of classroom quality in the New Mexico PreK program are in need of improvement. Measures of general classroom quality show that New Mexico PreK classrooms are above average. However, more specialized measures show that support for early language and literacy is fair and support for early mathematics is poor. As New Mexico PreK continues to expand, it is important for the state to maintain and possibly strengthen current work with PreK providers so that they can continue to improve children's learning environments in the key content areas of language, literacy, and math.
3. Expanded professional development and teacher training opportunities are keys to improving classroom quality, and simultaneously offer the potential to bolster child outcomes associated with PreK participation. Investments in high-quality staffing are a good solution to issues of classroom quality. One potentially valuable investment would be to ensure higher education has the capacity to enable every lead teacher in New Mexico PreK to obtain a bachelor's degree with strong specialized training in preschool education.

## FURTHER READING

For more information about the research summarized in this document, please consult the technical reports listed below, which were released earlier during the course of the New Mexico PreK Evaluation.

### *Information About Impacts of New Mexico PreK on Children's Language, Literacy, and Mathematics Skills*

Hustedt, J. T., Barnett, W. S., Jung, K., & Figueras-Daniel, A. (2009). *Continued impacts of New Mexico PreK on children's readiness for kindergarten: Results from the third year of implementation*. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University. Available at: <http://nieer.org/pdf/NewMexicoRDD0909.pdf>.

Hustedt, J. T., Barnett, W. S., Jung, K., & Figueras, A. (2008). *Impacts of New Mexico PreK on children's school readiness at kindergarten entry: Results from the second year of a growing initiative*. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University. Available at: <http://nieer.org/resources/research/NewMexicoRDD0608.pdf>.

Hustedt, J. T., Barnett, W. S., & Jung, K. (2007). *The effects of the New Mexico PreK initiative on young children's school readiness*. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University. Available at: <http://nieer.org/resources/research/NewMexicoReport0507.pdf>.

### *Cost-Benefit Study*

Goetze, L. D., Li, T., & Hustedt, J.T. (2007). *The economics of investing in New Mexico's state-funded pre-K program. Final report*. Logan, UT: Early Intervention Research Institute, Utah State University.

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# Letter from New Mexico Secretary of Education Dr. Veronica C. García

Fellow Champions for Education:

When Governor Richardson selected me for Cabinet Secretary in 2003, parents, community, and business leaders demanded better education outcomes for the money and energy invested in New Mexico's public schools. One of my goals has been to set high expectations for students and educators. It has been a privilege and an honor to carry out an agenda of public school reform, and it has been heartening to see real results.

The overall school improvement effort is centered around the *Making Schools Work* agenda which includes:

- Academic Rigor and Accountability
- Closing New Mexico's Achievement Gap
- School Readiness
- Quality Teachers
- Parent and Community Involvement
- 21st Century Classrooms
- College and Workforce Readiness

New Mexico has invested responsibly in public schools over the last five years, and these investments are paying off. In 2008, the Public Education Department followed through on several major policy initiatives that have brought change where it matters, in the classrooms. Students overall are showing steady improvements on our standards-based tests. I am especially pleased to report meaningful progress among Native American students and English language learners.

Parents, teachers and school employees should be acknowledged for their hard work to help make these advances a reality. New Mexico has also received many national recognitions in 2008, from innovative online learning polices to high standards and exemplary schools.

A legislative study group presented a new funding formula during the 2008 Legislature. More study was needed, and in the fall of 2008, Governor Richardson supported changing New Mexico's school funding formula, and allowing voters to decide how to fund the measure. The formula would be tied to new accountability measures for school budgets and instructional time.

New Mexico students have made progress, but there is still room for much-needed improvement. Our expectations will remain high in 2009 and beyond, and our students can meet the challenge. Please join me as I continue to set high expectations for New Mexico's children. We must all remind our children that they have the ability to perform among the best students in the world. We must also find creative ways to engage parents, families and community. Schools can't do it alone. Keep the faith. Together, we will build on our success and continue our quest to a world-class educational system.

Truly,

Veronica C. García, Ed.D.  
Secretary of Education

**Appendix A-3-4**  
**New Mexico Graduation Rates by Gender and Ethnicity, 2008-09**

<b>New Mexico</b>	<b>Student Records (N)</b>	<b>4 Year Rate (%)</b>	<b>5 Year Rate (%)</b>	<b>Difference</b>
<b>All Students</b>	31,140	60.3	66.2	5.9
Female	15,113	64.9	70.5	5.6
Male	16,027	55.9	62.1	6.2
Caucasian	9,422	71.3	75.7	4.4
African American	778	60.9	67.6	6.7
Hispanic	15,921	56.2	61.9	5.7
Asian	400	80.1	83.1	3.0
American Indian	4,617	49.8	59.7	9.9
Economically Disadvantaged	12,735	64.8	71.1	6.3
Students w Disabilities	6,784	53.1	59.6	6.5
English Language Learners	10,058	61.1	67.1	6.0



NGA Center for  
BEST PRACTICES



CCSSO  
Council of Chief State School Officers



Council of the  
Great City Schools



A Union of Professionals

## **Common Core State Standards in English Language Arts and Mathematics: A Teacher-City-State Collaboration to Pilot Test Their Viability and Effects on Student Achievement**

### *The Common Core State Standards Initiative*

A set of core common core standards in math and English language arts is now being developed under the guidance of the Center on Best Practices at the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO). Other organizations directly involved are ACT, the College Board, Achieve and a series of subject area consultants. Past efforts to implement standards have failed due to the absence of the supports needed to bring the standards to life in the classroom. The Council of Great City Schools (CGCS) and the American Federation of Teachers (AFT) understand that the ultimate success of the standards at the ground level will depend on involvement and buy-in from their memberships and proposed to NGA and CCSSO a joint effort to pilot the implementation of the standards to evaluate their viability and effects on student achievement. The four organizations identified cities that would likely provide the standards the greatest chance for success based on the alignment of leadership from the local union, district, chief and the governor's office. Proposed sites include: Albuquerque, Atlanta, Boston, Cleveland, Philadelphia, and St. Paul.

The project will involve adopting the new standards, developing initial curriculum and materials, providing extensive professional development aligned to the standards, and evaluating the implementation and the effectiveness of the standards over a period of time.

### *Contributions Already Made*

The AFT and the CGCS have been actively advocating for the involvement of teachers in the development and implementation of the standards and all other aspects of a comprehensive standards-based system. AFT and CGCS members met with representatives of NGA, CCSSO and the standards writing teams to provide suggestions for improving early drafts of the standards. The drafts released on March 10, revealed that the recommendations were given serious consideration.

### *Upcoming Work*

On April 19<sup>th</sup>, AFT, CGCS, CCSSO and NGA will convene representatives from the proposed pilot districts including union leaders, superintendents and district officials, representatives from the state school officers and governors' offices to begin the discussion about what is needed to ensure the successful implementation of the standards. Consideration will be given to the curriculum, instructional materials, model lesson plans, labor/management relationships that are focused on improving student achievement, time for teacher collaboration and other tools necessary for teachers to teach to the standards.

Following the meeting, the partnering organizations will develop grant proposals to be submitted to the U.S. Department of Education and other funders to support the work. The work will be done by an outside contractor under the direction of the partnership. Work will commence in May of 2010. In addition, the partnership has agreed that a careful evaluation of the pilot site implementation project will greatly assist in bringing the project to scale so a contractor has been identified to track and analyze the work of the pilot sites during implementation.

The Common Core State Standards Initiative presents a significant opportunity for states to collectively develop and adopt a core set of academic standards. Yet, without meaningful alignment of curriculum, instructional resources, professional development and other components of a comprehensive standards-based system we will not meet our goal of ensuring that all students are prepared for college and careers.

**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:

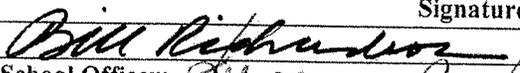
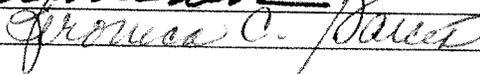
- Fewer, clearer, and higher, to best drive effective policy and practice;
  - Aligned with college and work expectations, so that all students are prepared for success upon graduating from high school;
  - Inclusive of rigorous content and application of knowledge through high-order skills, so that all students are prepared for the 21<sup>st</sup> century;
  - Internationally benchmarked, so that all students are prepared for succeeding in our global economy and society; and
  - Research and evidence-based.
- **National Validation Committee.** CCSSO and the NGA Center will create an expert validation group that will serve a several purposes, including validating end-of-course expectations, providing leadership for the development of K-12 standards, and certifying state adoption of the common core. 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:	



## News Release

09/01/2009

### **Fifty-One States And Territories Join Common Core State Standards Initiative**

#### **NGA Center, CCSSO Convene State-led Process to Develop Common English-language arts and Mathematics Standards**

Contact: Jodi Omeear, 202-624-5346  
Office of Communications

**WASHINGTON**—The National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO) today released the names of the states and territories that have joined the Common Core State Standards Initiative: **Alabama; Arizona; Arkansas; California; Colorado; Connecticut; Delaware; District of Columbia; Florida; Georgia; Hawaii; Idaho; Illinois; Indiana; Iowa; Kansas; Kentucky; Louisiana; Maine; Maryland; Massachusetts; Michigan; Minnesota; Mississippi; Missouri; Montana; Nebraska; Nevada; New Hampshire; New Jersey; New Mexico; New York; North Carolina; North Dakota; Ohio; Oklahoma; Oregon; Pennsylvania; Puerto Rico; Rhode Island; South Carolina; South Dakota; Tennessee; Utah; Vermont; Virgin Islands; Virginia; Washington; West Virginia; Wisconsin; Wyoming.**

In the twenty-six years since the release of *A Nation at Risk*, states have made great strides in increasing the academic rigor of education standards. Yet, America's children still remain behind other nations in terms of academic achievement and preparedness to succeed.

By signing on to the common core state standards initiative, governors and state commissioners of education across the country are committing to joining a state-led process to develop a common core of state standards in English language arts and mathematics for grades K-12. These standards will be research and evidence-based, internationally benchmarked, aligned with college and work expectations and include rigorous content and skills.

"To maintain America's competitive edge, we need all of our students to be prepared and ready to compete with students from around the world," said **NGA Vice Chair Vermont Gov. Jim Douglas**. "Common standards that allow us to internationally benchmark our students' performance with other top countries have the potential to bring about a real and meaningful transformation of our education system to the benefit of all Americans."

"As state school chiefs, we have been discussing and building momentum for state-led, voluntary common standards that are both rigorous and internationally benchmarked for the past two years," stated **CCSSO President and Arkansas Commissioner of Education Ken James**. "The broad level of commitment we have received from states across the nation for this unprecedented

effort is both gratifying and exciting. It also clearly illustrates that this is an idea whose time has arrived."

The Common Core State Standards Initiative is being jointly led by the NGA Center and CCSSO in partnership with Achieve, Inc; ACT and the College Board. It builds directly on recent efforts of leading organizations and states that have focused on developing college- and career-ready standards and ensures that these standards can be internationally benchmarked to top-performing countries around the world. The goal is to have a common core of state standards that states can voluntarily adopt. States may choose to include additional standards beyond the common core as long as the common core represents at least 85 percent of the state's standards in English language arts and mathematics.

"Measuring our students against international benchmarks is an important step," said **Virginia Gov. Timothy Kaine**. "Today, we live in a world without borders. It not only matters how Virginia students compare to those in surrounding states – it matters how we compete with countries across the world."

"Only when we agree about what all high school graduates need to be successful will we be able to tackle the most significant challenge ahead of us: transforming instruction for every child," said **CCSSO President-Elect and Maine Education Commissioner Sue Gendron**. "Common standards will provide educators clarity and direction about what all children need to succeed in college and the workplace and allow states to more readily share best practices that dramatically improve teaching and learning. Our graduates and frankly, the future of our economy, cannot wait any longer for our educational practices to give equal opportunity for success to every student."

The NGA Center and CCSSO are coordinating the process to develop these standards and have created an expert validation committee to provide an independent review of the common core state standards, as well as the grade-by-grade standards. This committee will be composed of nationally and internationally recognized and trusted education experts who are neutral to – and independent of – the process. The college- and career-ready standards are expected to be completed in September 2009. The grade-by-grade standards work is expected to be completed in January 2010.

###

*Founded in 1908, the National Governors Association (NGA) is the collective voice of the nation's governors and one of Washington, D.C.'s most respected public policy organizations. Its members are the governors of the 50 states, three territories and two commonwealths. NGA provides governors and their senior staff members with services that range from representing states on Capitol Hill and before the Administration on key federal issues to developing and implementing innovative solutions to public policy challenges through the NGA Center for Best Practices. For more information, visit [www.nga.org](http://www.nga.org).*

*The Council of Chief State School Officers (CCSSO) is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, and five U.S. extra-state jurisdictions. CCSSO provides leadership, advocacy, and technical assistance on major educational issues. The Council seeks member consensus on major educational issues and expresses their views to civic and professional organizations, federal agencies, Congress, and the public. [www.ccsso.org](http://www.ccsso.org).*

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**Please note that this printable version may not contain the full text of any PDF files or other attachments.**

Dear State Partners:

Thank you so much for taking a look at this *unproofed, unformatted* final version of the Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects.

This final version is built on your excellent and thorough feedback. We want to begin by thanking you again for your work and that of your teams and the educators in your state. As you may know, we were also in receipt of ten thousand comments from the public Web site, so this draft reflects those comments as well. Finally, of course, several teacher organizations and other leading educational organizations and experts have continued to give us detailed feedback, so our work reflects this as well.

So thank you, thank you, thank you for your constructive feedback, conversation, and joint problem solving throughout the process. We never would have gotten to this final version without so much help and input from you. We hope you can now consider it your own work as well as ours.

In this note, we wanted to outline briefly themes from the feedback, how we incorporated the feedback, and what will be in the appendices and glossary that are not being sent now but will be in the published version.

**Themes from the feedback and how we revised the Standards:**

1. *Attending more fully to technical reading and writing:* Several states felt we had not adequately addressed technical reading and writing, and the Standards are substantially enhanced in this regard. You will notice the change in the title to make technical texts explicit. Also, we have threaded the demands of technical reading and writing throughout the grade-specific standards. Additional samples of technical reading will be added to Appendix B, and samples of student technical writing will be included in Appendix C.
2. *Ensuring text complexity is treated as a goal that does not overly constrain student reading throughout the year:* States were concerned that the way we had framed the text complexity requirements of the Standards seemed to limit attention to individual student needs during the year. We have substantially revised standard 10 on reading complex texts to ensure it is clear that it is an end-of-year expectation.
3. *Clarifying the grade-by-grade progressions, rendering them smoother and clearer to support high-quality instruction and assessment.* All of the progressions have been reviewed repeatedly and with care; we think you will find them far clearer as grade-specific standards year to year.
4. *Making sure the K–2 material is developmentally appropriate:* We have revised the K–2 standards to ensure that they are developmentally appropriate and that key skills such as fluency are extended to grade 5. In a similar vein, we have made standards pertaining to such areas as media and research applicable at the earliest grades in response to overwhelming feedback to do so.

5. *Expanding the richness of multimedia literacy and global diversity:* We have enhanced the Standards to address a fuller range of media and electronic text. We have also added clearer language on the need to study world literature and works from diverse cultures.

There are many other changes, based, as always, on our understanding of the feedback as well as the evidence for college and career readiness. We have made several clarifications that have been requested. We consider all of the changes we have made refinements, not radical revisions.

**The appendices and glossary that will be published with the final Standards:**

As requested, we will be adding a glossary of key terms. We are also refining Appendices A, B, and C in accord with your feedback.

Now that this is the final version, we are asking whether there are inadvertent errors that remain. Please let us know of any such errors by May 18<sup>th</sup>. We will not have the capacity to add significant new material or to make significant changes. However, we ask that states keep in mind their flexibility to add 15 percent to the Standards if they believe there is essential material that needs greater attention.

We have made every effort to listen closely and act with care and judgment. Thanks again for all your help and collaboration.

Best regards,

The ELA/Literacy Writing Team (Sue, David, and Jim)

COMMON CORE  
STATE STANDARDS FOR

English Language Arts

&

Literacy in History/Social Studies,  
Science, and Technical Subjects

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## Introduction

The Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects (“the Standards”) 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 in order to help ensure that all students are college and career ready in literacy no later than the end of high school.

The present work, led by the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA), builds on the foundation laid by states in their decades-long work on crafting high-quality education standards. The Standards also draw on the most important international models as well as research and input from numerous sources, including state departments of education, scholars, assessment developers, professional organizations, educators from kindergarten through college, and parents, students, and other members of the public. In their design and content, refined through successive drafts and numerous rounds of feedback, 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 college and career readiness in a twenty-first-century, globally competitive society. The Standards are intended to be a living work: 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 for the present document. 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.

The Standards set requirements for English language arts (ELA) but also for literacy in history/social studies, science, and technical subjects. Just as students must learn to read, write, speak, listen, and use language effectively in a variety of content areas, so too must the Standards specify the literacy skills and understandings required for college and career readiness in multiple disciplines. Literacy standards for grade 6 and above are predicated on teachers of ELA, history/social studies, science, and technical subjects using their content area expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language in their respective fields. It is important to note that the 6–12 literacy standards in history/social studies, science, and technical subjects are not meant to replace content standards in those areas but rather to supplement them. States may incorporate the standards into their standards for these subjects or adopt them as content area literacy standards.

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 digitally. 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 meet the Standards develop the skills in reading, writing, speaking, and listening that are the foundation for any creative and purposeful expression in language.

*May 2010*

## Key Design Considerations

### *CCR and grade-specific standards*

The CCR standards anchor the document and define general, cross-disciplinary literacy expectations that must be met for students to be prepared to enter college and workforce training programs ready to succeed. The K–12 grade-specific standards define end-of-year expectations and a cumulative progression designed to enable students to meet college- and career-readiness expectations no later than the end of high school. The CCR and high school grade-specific standards work in tandem to define the college- and career-readiness line—the former providing broad standards, the latter providing additional specificity. Hence, both should be considered when developing college- and career-readiness assessments.

Students advancing through the grades are expected to meet each year's grade-specific standards, retain or further develop skills and understandings mastered in preceding grades, and work steadily toward meeting the more general expectations described by the CCR standards.

### *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.

### *A focus on results rather than means*

By emphasizing 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 the full range of metacognitive strategies that students may need 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.

### *Research and media skills blended 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, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and nonprint texts in media forms old and new. The need to conduct research and to produce and consume media is embedded into every aspect of today's curriculum. In like fashion, research and media skills and understandings are embedded throughout the Standards rather than treated in a separate section.

### *Shared responsibility for students' literacy development*

The Standards insist that instruction in reading, writing, speaking, listening, and language be a shared responsibility within the school. The K–5 standards include expectations for reading, writing, speaking, listening, and language applicable to a range of subjects, including but not limited to ELA. The grades 6–12 standards are divided into two sections, one for ELA and the other for history/social studies, science, and technical subjects. This division reflects the unique, time-honored place of ELA teachers in developing students' literacy skills while at the same time recognizing that teachers in other areas must have a role in this development as well.

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 than at present can meet the requirements of college and career readiness. In K–5, the Standards follow NAEP’s lead in balancing the reading of literature with the reading of informational texts, including texts in history/social studies, science, and technical subjects. In accord with NAEP’s growing emphasis on informational texts in the higher grades, the Standards demand that a significant amount of reading of informational texts take place in and outside of the ELA classroom. Fulfilling the standards for 6–12 ELA requires much greater attention to a specific category of informational text—literary nonfiction—than has been traditional. Because the ELA classroom must focus on literature (stories, drama, and poetry) as well as literary nonfiction, a great deal of informational reading in grades 6–12 must take place in other classes if the NAEP assessment framework is to be matched instructionally.<sup>1</sup> 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.

NAEP likewise outlines a distribution across the grades of the core purposes and types of student writing. Similar to the Standards, the 2011 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: standards for grades 9–12 describe writing in all three forms, but, consistent with NAEP, the overwhelming focus of writing

<sup>1</sup> The percentages on the table reflect the sum of student reading, not just reading in ELA settings. Teachers of senior English classes, for example, are not required to devote 70 percent of reading to informational texts. Rather, 70 percent of student reading across the grade should be informational.

throughout high school should be on writing to argue and to inform or explain.<sup>2</sup>

**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.

***What is not covered by the Standards***

The Standards should be recognized for what they are *not* as well as what they are. 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, 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 do not define the nature of advanced work for students who meet the Standards prior to the end of high school. For those students, advanced work in such areas as literature, composition, language, and journalism should be available. This

<sup>2</sup> As with reading, the percentages in the table reflect the sum of student writing, not just writing in ELA settings.

work should provide the next logical step up from the college and career readiness baseline established here.

- 4) The Standards set grade-specific standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations. It is also beyond the scope of the Standards to define the full range of supports appropriate for English language learners and for students with special needs. At the same time, all students must have the opportunity to learn and meet the same high standards if they are to access the knowledge and skills necessary in their post-school lives. The Standards should be read as allowing for the widest possible range of students to participate fully from the outset, along with appropriate accommodations to ensure maximum participation of students with special education needs. For example, for students with disabilities *reading* should allow for use of Braille, screen reader technology, or other assistive devices, while *writing* should include the use of a scribe, computer, or speech-to-text technology. In a similar vein, speaking and *listening* should be interpreted broadly to include sign language. No set of grade-specific standards can fully reflect the great variety in abilities, needs, learning rates, and 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.
- 5) While the ELA and content area literacy components described herein are critical to college and career readiness, they do not define the whole of such readiness. Students require a wide-ranging, rigorous academic preparation and, particularly in the early grades, attention to such matters as social, emotional, and physical development and approaches to learning. Similarly, the Standards define literacy expectations in history/social studies, science, and technical subjects, but literacy standards in other areas, such as mathematics and health education, modeled on those herein are strongly encouraged to allow for a comprehensive, schoolwide literacy program.

## 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 for ELA and one for history/social studies, science, and technical subjects. Three appendices (lettered A, B, and C) accompany the main document.

Each section is divided into *strands*. K–5 and 6–12 ELA have Reading, Writing, Speaking and Listening, and Language strands; the 6–12 history/social studies, science, and technical subjects section focuses on Reading and Writing. Each strand is headed by a strand-specific set of *College and Career Readiness Anchor Standards* that is identical across all grades and content areas.

Standards for each grade within K–8 and for grades 9–10 and 11–12 follow the CCR standards in each strand. Each *grade-specific standard* (as these standards are collectively referred to) corresponds to the same-numbered CCR standard. Put another way, each CCR standard has an accompanying grade-specific standard translating the broader CCR statement into grade-appropriate end-of-year expectations.

Individual CCR standards can be identified by their strand, CCR status, and number (R.CCR.6, for example). Individual grade-specific standards can be identified by their strand, grade, and number or number and letter so that RI.4.3, for example, stands for Reading, Informational Text, grade 4, standard 3. Likewise, W.5.1a stands for Writing, grade 5, standard 1a. Strand designations can be found in brackets alongside the full strand title.

### *Who is responsible for which portion of the Standards*

A single K–5 section lists 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 in these grades receive comes from one teacher. Grades 6–12 are covered in two content area–specific sections, the first for the English language arts teacher and the second for teachers of history/social studies, science, and technical subjects. Each section uses the same CCR standards but also includes grade-specific standards tuned to the literacy requirements of the particular discipline(s).

## Key Features of the Standards

### *Reading: Text complexity and the growth of comprehension*

The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Standard 10 defines a grade-by-grade “staircase” of increasing text complexity that rises from beginning reading to the college- and career-readiness level. Whatever they are reading, students must also show a steadily growing 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 reading, and research*

The Standards acknowledge the fact that whereas some writing skills, such as the ability to plan, revise, edit, and publish, are applicable to many types of writing, other skills are more properly defined in terms of specific writing types: arguments, informative/explanatory texts, and narratives. Standard 9 stresses the importance of the writing-reading connection by requiring students to draw and write about evidence from literary and informational texts. Because of the centrality of writing to most forms of inquiry, research standards are prominently included in this strand, though skills important to research are infused throughout the document.

### *Speaking and Listening:*

#### *Flexible communication and collaboration*

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 work together, express and listen to ideas, integrate information from oral, visual, and multimodal sources, evaluate what they hear, use digital media and visual displays strategically to help achieve communicative purposes, and adapt speech to context and task.

### *Language: Conventions and vocabulary*

The standards on conventions and effective language use 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 understanding words, their relationships, and

their nuances and on acquiring new words and phrases, particularly general academic and domain-specific vocabulary.

*Appendices A, B, and C*

Appendix A contains supplementary material on reading, writing, speaking and listening, and language as well as a glossary of key terms. Appendix B consists of text exemplars illustrating the complexity, quality, and range of reading appropriate for various grade levels. Appendix C includes annotated samples demonstrating at least adequate performance in student writing at various grade levels.

DRAFT

**Standards for English Language Arts  
&  
Literacy in History/Social Studies,  
Science, and Technical Subjects**

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**K-5**

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## College and Career Readiness Anchor Standards for Reading

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They relate to their College and Career Readiness (CCR) counterparts by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### 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 how and why individuals, events, and ideas 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, chapter, scene, or stanza) 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. Integrate and evaluate content presented graphically, visually, orally, and multimodally as well as in words within and across print and digital sources.\*
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
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 of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

\*Please see “Research to Build and Present 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.

### 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

[RL]

The following standards 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. Students advancing through the grades are expected to meet each year’s grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

Kindergartners:	Grade 1 students:	Grade 2 students:
<b>Key Ideas and Details</b>		
1. With prompting and support, ask and answer questions about key details in a text.	1. Ask and answer questions about key details in a text.	1. Ask and answer such questions as <i>who</i> , <i>what</i> , <i>where</i> , <i>when</i> , <i>why</i> , and <i>how</i> to demonstrate understanding of key details in a text.
2. With prompting and support, retell familiar stories, including key details.	2. Retell stories, including key details, and demonstrate understanding of their central message or lesson.	2. Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
3. With prompting and support, identify characters, settings, and major events in a story.	3. Describe characters, settings, and major events in a story, using key details.	3. Describe how characters in a story respond to major events and challenges.
<b>Craft and Structure</b>		
4. Ask and answer 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. Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
5. Recognize common types of texts (e.g., storybooks, poems).	5. Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.	5. Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
6. With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.	6. Identify who is telling the story at various points in a text.	6. Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.
<b>Integration of Knowledge and Ideas</b>		
7. With prompting and support, describe the connection between pictures or other illustrations and the overall story in which they appear.	7. Refer to pictures, illustrations, and details in a story to describe characters, setting, or events.	7. Use information from illustrations, other visual elements (e.g., maps), and the words in a print or digital text to demonstrate understanding of the characters, setting, or plot.
8. (Not applicable to literature)	8. (Not applicable to literature)	8. (Not applicable to literature)
9. With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.	9. Compare and contrast the adventures and experiences of characters in stories.	9. Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.
<b>Range of Reading and Level of Text Complexity</b>		
10. Actively engage in group reading activities with purpose and understanding.	10. With prompting and support, read appropriately complex prose and poetry for grade 1.	10. By the end of the year, read literature, including stories, poetry, and drama, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Grade 3 students:	Grade 4 students:	Grade 5 students:
<b>Key Ideas and Details</b>		
<p>1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>2. Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.</p> <p>3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.</p>	<p>1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.</p> <p>2. Determine a theme of a story, drama, or poem from details in the text; summarize the text.</p> <p>3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character’s thoughts, words, or actions).</p>	<p>1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.</p> <p>2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.</p> <p>3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).</p>
<b>Craft and Structure</b>		
<p>4. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.</p> <p>5. Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as <i>chapter</i>, <i>scene</i>, and <i>stanza</i>; describe how each successive part builds on earlier sections.</p> <p>6. Distinguish their own point of view from that of the narrator or those of the characters.</p>	<p>4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., <i>Herculean</i>), drawing on a wide reading of classic myths from a variety of cultures and periods.</p> <p>5. Explain major differences between poems, drama, and prose and refer to the core structural elements of poems (e.g., stanza, verse, rhythm, meter) and drama (e.g., casts of characters, setting descriptions, dialogue, acts, scenes, stage directions) when writing or speaking about a text.</p> <p>6. Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.</p>	<p>4. Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.</p> <p>5. Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.</p> <p>6. Describe how a narrator’s or speaker’s point of view influences how events are described.</p>
<b>Integration of Knowledge and Ideas</b>		
<p>7. Explain how specific images and illustrations contribute to or clarify a story (e.g., create mood, emphasize particular aspects of characters or settings).</p> <p>8. (Not applicable to literature)</p> <p>9. Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).</p>	<p>7. Integrate information gained from illustrations and other visual elements in a text with the words to demonstrate understanding of how the characters, setting, and plot interact and develop.</p> <p>8. (Not applicable to literature)</p> <p>9. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.</p>	<p>7. Analyze how visual and multimedia elements in conjunction with words contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction).</p> <p>8. (Not applicable to literature)</p> <p>9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.</p>

Grade 3 students:	Grade 4 students:	Grade 5 students:
<i>Range of Reading and Level of Text Complexity</i>		
<b>10.</b> By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 2–3 text complexity band independently and proficiently.	<b>10.</b> By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	<b>10.</b> By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band independently and proficiently.

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Reading Standards for Informational Text K–5

[RI]

Kindergartners:	Grade 1 students:	Grade 2 students:
<b>Key Ideas and Details</b>		
1. With prompting and support, ask and answer questions about key details in a text.	1. Ask and answer questions about key details in a text.	1. Ask and answer such questions as <i>who</i> , <i>what</i> , <i>where</i> , <i>when</i> , <i>why</i> , and <i>how</i> to demonstrate understanding of key details in a text.
2. With prompting and support, identify the main topic and retell key details of a text.	2. Identify the main topic and retell key details of a text.	2. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.
3. With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.	3. Describe the connection between two individuals, events, ideas, or pieces of information in a text.	3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
<b>Craft and Structure</b>		
4. With prompting and support, ask and answer questions about unknown words in a text.	4. Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	4. Determine the meaning of words and phrases in a text relevant to a <i>grade 2 topic or subject area</i> .
5. Identify the front cover, back cover, and title page of a book.	5. Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.	5. Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text quickly and efficiently.
6. Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.	6. Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.	6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe.
<b>Integration of Knowledge and Ideas</b>		
7. With prompting and support, describe the connection between pictures or other illustrations and the overall text in which they appear.	7. Use pictures, illustrations, and details in a text to describe its key ideas.	7. Explain how specific images and other illustrations contribute to and clarify a text (e.g., show how something works).
8. With prompting and support, identify the reasons an author gives to support points in a text.	8. Identify the reasons an author gives to support points in a text.	8. Describe how reasons support specific points the author makes in a text.
9. With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	9. Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	9. Compare and contrast the most important points presented by two texts on the same topic.
<b>Range of Reading and Level of Text Complexity</b>		
10. Actively engage in group reading activities with purpose and understanding.	10. With prompting and support, read appropriately complex informational texts for grade 1.	10. By the end of year, read and comprehend informational texts, including historical, scientific and technical texts, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range

Grade 3 students:	Grade 4 students:	Grade 5 students:
<b>Key Ideas and Details</b>		
<p>1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.</p> <p>2. Determine the main idea of a text; recount the key details and explain how they support the main idea.</p> <p>3. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</p>	<p>1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.</p> <p>2. Determine the main idea of a text and explain how it is supported by key details; summarize the text.</p> <p>3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.</p>	<p>1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.</p> <p>2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.</p> <p>3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.</p>
<b>Craft and Structure</b>		
<p>4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a <i>grade 3 topic or subject area</i>.</p> <p>5. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic quickly and efficiently.</p> <p>6. Distinguish their own point of view from that of the author of a text.</p>	<p>4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a <i>grade 4 topic or subject area</i>.</p> <p>5. Describe the overall structure of events, ideas, concepts, or information (e.g., chronology, comparison, cause/effect) in a text or part of a text.</p> <p>6. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.</p>	<p>4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a <i>grade 5 topic or subject area</i>.</p> <p>6. Compare and contrast the organizational structure of events, ideas, concepts, or information (e.g., chronology, comparison, cause/effect, problem/solution) in two or more texts.</p> <p>7. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.</p>
<b>Integration of Knowledge and Ideas</b>		
<p>7. Use information gained from illustrations, other visual elements (e.g., maps, photographs), and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).</p> <p>8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).</p> <p>9. Compare and contrast the most important points and key details presented in two texts on the same topic.</p>	<p>7. Interpret factual information presented graphically or visually (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to understanding the text in which they appear.</p> <p>8. Explain how an author uses reasons and evidence to support particular points in a text.</p> <p>9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.</p>	<p>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.</p> <p>8. Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence supports which point(s).</p> <p>9. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.</p>

**Grade 3 students:**

**Grade 4 students:**

**Grade 5 students:**

*Range of Reading and Level of Text Complexity*

**10.** By the end of the year, read and comprehend informational texts, including historical, scientific, and technical texts, in the grades 2–3 text complexity band independently and proficiently.

**10.** By the end of year, read and comprehend informational texts, including historical, scientific, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as necessary at the high end of the range.

**10.** By the end of the year, read and comprehend informational text, including historical, scientific, and technical texts, in the grades 4–5 text complexity band level independently and proficiently.

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## Reading Standards: Foundational Skills (K–5)

[RF]

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. Instruction should be differentiated: Good readers will need much less practice with these concepts than struggling readers. The point is to teach students what they need to learn and not what they already know—to discern when particular children or activities warrant more or less attention.

*\* In Kindergarten children are expected to demonstrate increasing awareness and competence in the areas that follow.*

Kindergartners:	Grade 1 students:
<p><b>Print Concepts</b></p> <ol style="list-style-type: none"><li>Demonstrate understanding of the organization and basic features of print.<ol style="list-style-type: none"><li>Follow words from left to right, top to bottom, and page-by-page.</li><li>Recognize that spoken words are represented in written language by specific sequences of letters.</li><li>Understand that words are separated by spaces in print.</li><li>Recognize and name all upper- and lowercase letters of the alphabet.</li></ol></li></ol>	<ol style="list-style-type: none"><li>Demonstrate understanding of the organization and basic features of print.<ol style="list-style-type: none"><li>Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).</li></ol></li></ol>
<p><b>Phonological Awareness</b></p> <ol style="list-style-type: none"><li>Demonstrate understanding of spoken words, syllables, and sounds (phonemes).<ol style="list-style-type: none"><li>Recognize and produce rhyming words.</li><li>Count, pronounce, blend, and segment syllables in spoken words.</li><li>Blend and segment onsets and rimes of single-syllable spoken words.</li><li>Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (CVC) words.<sup>1</sup> (This does not include CVCs ending with /l/, /r/, or /x/.)</li><li>Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.</li></ol></li></ol>	<ol style="list-style-type: none"><li>Demonstrate understanding of spoken words, syllables, and sounds (phonemes).<ol style="list-style-type: none"><li>Distinguish long from short vowel sounds in spoken single-syllable words.</li><li>Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.</li><li>Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words.</li><li>Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).</li></ol></li></ol>

<sup>1</sup>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–5)

[RF]

*\* In Kindergarten children are expected to demonstrate increasing awareness and competence in the areas that follow.*

Kindergartners:*	Grade 1 students:	Grade 2 students:
<i>Phonics and Word Recognition</i>		
<p><b>3.</b> Know and apply grade-level phonics and word analysis skills in decoding words.</p> <ul style="list-style-type: none"> <li>a. Demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant.</li> <li>b. Associate the long and short sounds with the common spellings (graphemes) for the five major vowels.</li> <li>c. Read common high-frequency words by sight. (e.g., <i>the, of, to, you, she, my, is, are, do, does</i>).</li> <li>d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.</li> </ul>	<p><b>3.</b> Know and apply grade-level phonics and word analysis skills in decoding words.</p> <ul style="list-style-type: none"> <li>a. Know the spelling-sound correspondences for common consonant digraphs. (two letters that represent one sound).</li> <li>b. Decode regularly spelled one-syllable words.</li> <li>c. Know final <i>-e</i> and common vowel team conventions for representing long vowel sounds.</li> <li>d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.</li> <li>e. Decode two-syllable words following basic patterns by breaking the words into syllables.</li> <li>f. Read words with inflectional endings.</li> <li>g. Recognize and read grade-appropriate irregularly spelled words.</li> </ul>	<p><b>3.</b> Know and apply grade-level phonics and word analysis skills in decoding words.</p> <ul style="list-style-type: none"> <li>a. Distinguish long and short vowels when reading regularly spelled one-syllable words.</li> <li>b. Know spelling-sound correspondences for additional common vowel teams.</li> <li>c. Decode regularly spelled two-syllable words with long vowels.</li> <li>d. Decode words with common prefixes and suffixes.</li> <li>e. Identify words with inconsistent but common spelling-sound correspondences.</li> <li>f. Recognize and read grade-appropriate irregularly spelled words.</li> </ul>
<p><b>4.</b> Read emergent-reader texts with purpose and understanding.</p>	<p><b>4.</b> Read with sufficient accuracy and fluency to support comprehension.</p> <ul style="list-style-type: none"> <li>a. Read on-level text with purpose and understanding.</li> <li>b. Read on-level text orally with accuracy, appropriate rate, and expression.</li> <li>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</li> </ul>	<p><b>4.</b> Read with sufficient accuracy and fluency to support comprehension.</p> <ul style="list-style-type: none"> <li>a. Read on-level text with purpose and understanding.</li> <li>b. Read on-level text orally with accuracy, appropriate rate, and expression.</li> <li>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</li> </ul>

Grade 3 students:	Grade 4 students:	Grade 5 students:
<i>Phonics and Word Recognition</i>		
<p><b>3.</b> Know and apply grade-level phonics and word analysis skills in decoding words.</p> <ul style="list-style-type: none"> <li>a. Identify and know the meaning of the most common prefixes and derivational suffixes.</li> <li>b. Decode words with common Latin suffixes.</li> <li>c. Decode multisyllable words.</li> <li>d. Read grade-appropriate irregularly spelled words.</li> </ul>	<p><b>3.</b> Know and apply grade-level phonics and word analysis skills in decoding words.</p> <ul style="list-style-type: none"> <li>a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multi-syllabic words in context and out of context.</li> </ul>	<p><b>3.</b> Know and apply grade-level phonics and word analysis skills in decoding words.</p> <ul style="list-style-type: none"> <li>a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multi-syllabic words in context and out of context.</li> </ul>
<i>Fluency</i>		
<p><b>4.</b> Read with sufficient accuracy and fluency to support comprehension.</p> <ul style="list-style-type: none"> <li>a. Read on-level text with purpose and understanding.</li> <li>b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression.</li> <li>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</li> </ul>	<p><b>4.</b> Read with sufficient accuracy and fluency to support comprehension.</p> <ul style="list-style-type: none"> <li>a. Read on-level text with purpose and understanding.</li> <li>b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression.</li> <li>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</li> </ul>	<p><b>4.</b> Read with sufficient accuracy and fluency to support comprehension.</p> <ul style="list-style-type: none"> <li>a. Read on-level text with purpose and understanding.</li> <li>b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression.</li> <li>c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.</li> </ul>

## College and Career Readiness Anchor Standards for Writing

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They relate to their College and Career Readiness (CCR) counterparts by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### Text Types and Purposes<sup>1</sup>

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

### Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.<sup>2</sup>
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

### Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

### 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.

<sup>1</sup>These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.

<sup>2</sup>See standards 1–3 in Language, pages 26–31, for specific editing expectations.

### 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 real and imagined experiences and events. 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 and content of their writing to accomplish a particular task and purpose. 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 extended time frames throughout the year.

## Writing Standards K–5

[W]

The following standards for K–5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Each year in their writing, students should demonstrate increasing sophistication in all aspects of language use, from vocabulary and syntax to the development and organization of ideas, and they should address increasingly demanding content and sources. Students advancing through the grades are expected to meet each year’s grade-specific standards and retain or further develop skills and understandings mastered in preceding grades. The expected growth in student writing ability is reflected both in the standards themselves and in the collection of annotated student writing samples in Appendix C.

Kindergartners:	Grade 1 students:	Grade 2 students:
<b>Text Types and Purposes</b>		
1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., <i>My favorite book is . . .</i> ).	1. Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.	1. Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., <i>because</i> , <i>and</i> , <i>also</i> ) to connect opinion and reasons, and provide a concluding statement or section.
2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.	2. Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	2. Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement 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 in which they occurred, and provide a reaction to what happened.	3. Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.	3. Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.
<b>Production and Distribution of Writing</b>		
4. (Begins in grade 3)	4. (Begins in grade 3)	4. (Begins in grade 3)
5. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.	5. With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.	5. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.
6. With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.	6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.	6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.
<b>Research to Build and Present Knowledge</b>		
7. Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).	7. Participate in shared research and writing projects (e.g., explore a number of “how-to” books on a given topic and use them to write a sequence of instructions).	7. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).
8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	8. Recall information from experiences or gather information from provided sources to answer a question.
9. (Begins in grade 4)	9. (Begins in grade 4)	9. (Begins in grade 4)
<b>Range of Writing</b>		
10. (Begins in grade 3)	10. (Begins in grade 3)	10. (Begins in grade 3)

Grade 3 students:	Grade 4 students:	Grade 5 students:
<b>Text Types and Purposes</b>		
<p>1. Write opinion pieces on familiar topics or texts, supporting a point of view with reasons.</p> <ul style="list-style-type: none"> <li>a. Introduce the topic or book they are writing about, state an opinion, and create an organizational structure that lists reasons.</li> <li>b. Provide reasons that support the opinion.</li> <li>c. Use linking words and phrases (e.g., <i>because, therefore, since, for example</i>) to connect opinion and reasons.</li> <li>d. Provide a concluding statement or section.</li> </ul>	<p>1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.</p> <ul style="list-style-type: none"> <li>a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer’s purpose.</li> <li>b. Provide reasons that are supported by facts and details.</li> <li>c. Link opinion and reasons using words and phrases (e.g., <i>for instance, in order to, in addition</i>).</li> <li>d. Provide a concluding statement or section related to the opinion presented.</li> </ul>	<p>1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.</p> <ul style="list-style-type: none"> <li>a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer’s purpose.</li> <li>b. Provide logically ordered reasons that are supported by facts and details.</li> <li>c. Link opinion and reasons using words, phrases, and clauses (e.g., <i>consequently, specifically</i>).</li> <li>d. Provide a concluding statement or section related to the opinion presented.</li> </ul>
<p>2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <ul style="list-style-type: none"> <li>a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, and details.</li> <li>c. Use linking words and phrases (e.g., <i>also, another, and, more, but</i>) to connect ideas within categories of information.</li> <li>d. Provide a concluding statement or section.</li> </ul>	<p>2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <ul style="list-style-type: none"> <li>a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within categories of information using words and phrases (e.g., <i>another, for example, also, because</i>).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>	<p>2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.</p> <ul style="list-style-type: none"> <li>a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.</li> <li>c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., <i>in contrast, especially</i>).</li> <li>d. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>e. Provide a concluding statement or section related to the information or explanation presented.</li> </ul>
<p>3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <ul style="list-style-type: none"> <li>a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.</li> <li>b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.</li> <li>c. Use temporal words and phrases to signal event order.</li> <li>d. Provide a sense of closure.</li> </ul>	<p>3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <ul style="list-style-type: none"> <li>a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.</li> <li>b. Use dialogue and description to develop experiences and events or show the responses of characters to situations.</li> <li>c. Use a variety of transitional words and phrases to manage the sequence of events.</li> <li>d. Use concrete words and phrases and sensory details to convey experiences and events precisely.</li> <li>e. Provide a conclusion that follows from the narrated experiences or events.</li> </ul>	<p>3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.</p> <ul style="list-style-type: none"> <li>a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.</li> <li>b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.</li> <li>c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.</li> <li>d. Use concrete words and phrases and sensory details to convey experiences and events precisely.</li> <li>e. Provide a conclusion that follows from the narrated experiences or events.</li> </ul>

Grade 3 students:	Grade 4 students:	Grade 5 students:
<i>Production and Distribution of Writing</i>		
<p>4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p>	<p>4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p>	<p>4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p>
<p>5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.</p>	<p>5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.</p>	<p>5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.</p>
<p>6. With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.</p>	<p>6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing (using the keyboard) as well as to interact and collaborate with others.</p>	<p>6. With some guidance and support from adults, use technology, including the Internet, to produce and publish a minimum of two pages of writing (using the keyboard) as well as to interact and collaborate with others.</p>
<i>Research to Build Knowledge</i>		
<p>7. Conduct short research projects that build knowledge about a topic.</p>	<p>7. Conduct short research projects that build knowledge through investigation of different aspects of a topic.</p>	<p>7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.</p>
<p>8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.</p>	<p>8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.</p>	<p>8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.</p>
<p>9. (Begins in grade 4)</p>	<p>9. Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply <i>grade 4 Reading standards</i> to literature (e.g., “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text”).</p> <p>b. Apply <i>grade 4 Reading standards</i> to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text”).</p>	<p>9. Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply <i>grade 5 Reading standards</i> to literature (e.g., “Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text”).</p> <p>b. Apply <i>grade 5 Reading standards</i> to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence supports which point[s]”).</p>
<i>Range of Writing</i>		
<p>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 discipline-specific tasks, purposes, and audiences.</p>	<p>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 discipline-specific tasks, purposes, and audiences.</p>	<p>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 discipline-specific tasks, purposes, and audiences.</p>

## College and Career Readiness Anchor Standards for Speaking and Listening

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They relate to their College and Career Readiness (CCR) counterparts by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### *Comprehension and Collaboration*

1. Prepare for and participate effectively in a range of conversations and collaborations, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate content from multiple graphical, visual, oral, or multimodal sources.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

### *Presentation of Knowledge and Ideas*

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating 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—as part of a whole class, in small groups, 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

[SL]

The following standards for K–5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Students advancing through the grades are expected to meet each year’s grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

Kindergartners:	Grade 1 students:	Grade 2 students:
<b>Comprehension and Collaboration</b>		
<p><b>1.</b> Participate in collaborative conversations about <i>kindergarten topics and texts</i> with peers and adults in small and larger groups.</p> <p>a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).</p> <p>b. Continue a conversation through multiple exchanges.</p>	<p><b>1.</b> Participate in collaborative conversations about <i>grade 1 topics and texts</i> with peers and adults in small and larger groups.</p> <p>a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).</p> <p>b. Build on others’ talk in conversations by responding to the comments of others through multiple exchanges.</p> <p>c. Ask questions to clear up any confusion about the topics and texts under discussion.</p>	<p><b>1.</b> Participate in collaborative conversations about <i>grade 2 topics and texts</i> with peers and adults in small and larger groups.</p> <p>a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</p> <p>b. Build on others’ talk in conversations by linking their comments to the remarks of others.</p> <p>c. Ask for clarification and further explanation as needed about the topics and texts under discussion.</p>
<p><b>2.</b> Confirm understanding of written texts read aloud or information presented orally or through media by asking and answering questions about key details.</p>	<p><b>2.</b> Demonstrate understanding of written texts read aloud or information presented orally or through media by asking and answering questions about key details and restating key elements.</p>	<p><b>2.</b> Recount or describe key ideas or details from written texts read aloud or information presented orally or through media.</p>
<p><b>3.</b> Ask and answer questions in order to seek help, get information, or clarify something that is not understood.</p>	<p><b>3.</b> Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.</p>	<p><b>3.</b> Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.</p>
<b>Presentation of Knowledge and Ideas</b>		
<p><b>4.</b> Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.</p>	<p><b>4.</b> Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.</p>	<p><b>4.</b> Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.</p>
<p><b>5.</b> Add drawings or other visual displays to descriptions as desired to provide additional detail.</p>	<p><b>5.</b> Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.</p>	<p><b>5.</b> Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.</p>
<p><b>6.</b> Speak audibly and express thoughts, feelings, and ideas clearly.</p>	<p><b>6.</b> Produce complete sentences when appropriate to task and situation. (See standards 1–3 in Language, pages 26–31, for specific expectations.)</p>	<p><b>6.</b> Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See standards 1–3 in Language, pages 26–31, for specific expectations.)</p>

Grade 3 students:	Grade 4 students:	Grade 5 students:
<b>Comprehension and Collaboration</b>		
<p><b>1.</b> Engage effectively in a range of collaborative discussions (one-on-one and in groups) on <i>grade 3 topics and texts</i>, building on others' ideas and expressing their own clearly.</p> <p>a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).</p> <p>b. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.</p> <p>c. Explain their own ideas and understanding in light of the discussion.</p>	<p><b>1.</b> Engage effectively in range of collaborative discussions (one-on-one and in groups) on <i>grade 4 topics and texts</i>, building on others' ideas and expressing their own clearly.</p> <p>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussions.</p> <p>b. Follow agreed-upon rules for discussions and carry out assigned roles.</p> <p>c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.</p> <p>d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.</p>	<p><b>1.</b> Engage effectively in a range of collaborative discussions (one-on-one and in groups) on <i>grade 5 topics and texts</i>, building on others' ideas and expressing their own clearly.</p> <p>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.</p> <p>b. Follow agreed-upon rules for discussions and carry out assigned roles.</p> <p>c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.</p> <p>d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.</p>
<p><b>2.</b> Identify the main ideas and supporting details of written texts read aloud or information presented graphically, orally, visually, or multimodally.</p>	<p><b>2.</b> Paraphrase portions of written texts read aloud or information presented graphically, orally, visually, or multimodally.</p>	<p><b>2.</b> Summarize written texts read aloud or information presented graphically, orally, visually, or multimodally.</p>
<p><b>3.</b> Ask and answer questions about information from a speaker's, offering appropriate elaboration and detail.</p>	<p><b>3.</b> Identify the reasons and evidence a speaker provides to support particular points.</p>	<p><b>3.</b> Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.</p>
<b>Presentation of Knowledge and Ideas</b>		
<p><b>4.</b> Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.</p>	<p><b>4.</b> Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p>	<p><b>4.</b> Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.</p>
<p><b>5.</b> Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.</p>	<p><b>5.</b> Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.</p>	<p><b>5.</b> Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.</p>
<p><b>6.</b> Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See standards 1–3 in Language, pages 26–31, for specific expectations.)</p>	<p><b>6.</b> 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 standards 1–3 in Language, pages 26–31, for specific expectations.)</p>	<p><b>6.</b> Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See standards 1–3 in Language, pages 26–31, for specific expectations.)</p>

## College and Career Readiness Anchor Standards for Language

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They relate to their College and Career Readiness (CCR) counterparts by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### Conventions

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of capitalization, punctuation, and spelling when writing.

### Effective Language Use

3. Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking.

### Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of word relationships and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific vocabulary sufficient for reading, writing, speaking, and listening at the college and career readiness level.

### 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 grammar, usage, and mechanics as well as learn ways to use language to enhance meaning. They must also be able to determine or clarify the meaning of grade-appropriate words encountered through listening, reading, and media use, come to appreciate that words have nonliteral meanings, shadings of meaning, and relationships to other words, and expand their vocabulary in the course of studying content. The inclusion of Language standards in their own strand should not be taken as an indication that skills related to conventions, effective language use, and vocabulary are unimportant to reading, writing, speaking, and listening; indeed, they are inseparable from such contexts.

## Language Standards K–5

[L]

The following standards for grades K–5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Students advancing through the grades are expected to meet each year’s grade-specific standards and retain or further develop skills and understandings mastered in preceding grades. Beginning in grade 3, skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (\*). See the table on page 31 for a complete list and Appendix A for an example of how these skills develop in sophistication.

Kindergartners:	Grade 1 students:	Grade 2 students:
<b>Conventions</b>		
<p><b>1.</b> Observe conventions of grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> <li>a. Print many upper- and lowercase letters.</li> <li>b. Use frequently occurring nouns and verbs.</li> <li>c. Form regular plural nouns orally by adding /s/ or /es/ (e.g., <i>dog, dogs; wish, wishes</i>).</li> <li>d. Understand and use question words (interrogatives) (e.g., <i>who, what, where, when, why, how</i>).</li> <li>e. Use the most frequently occurring prepositions (e.g., <i>to, from, in, out, on, off, for, of, by, with</i>).</li> <li>f. Produce and expand complete sentences in shared language activities.</li> </ul>	<p><b>1.</b> Observe conventions of grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> <li>a. Print all upper- and lowercase letters.</li> <li>b. Use common, proper, and possessive nouns.</li> <li>c. Use singular and plural nouns with matching verbs in basic sentences (e.g., <i>He hops; We hop</i>).</li> <li>d. Use personal, possessive, and indefinite pronouns (e.g., <i>I, me, my; they, them, their, anyone, everything</i>).</li> <li>e. Use verbs to convey a sense of past, present, and future (e.g., <i>Yesterday I walked home; Today I walk home; Tomorrow I will walk home</i>).</li> <li>f. Use frequently occurring adjectives.</li> <li>g. Use frequently occurring conjunctions (e.g., <i>and, but, or, so, because</i>).</li> <li>g. Use determiners (e.g., articles, demonstratives).</li> <li>h. Use frequently occurring prepositions (e.g., <i>during, beyond, toward</i>).</li> <li>i. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to questions and prompts.</li> </ul>	<p><b>1.</b> Observe conventions of grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> <li>a. Use collective nouns (e.g., <i>group</i>).</li> <li>b. Form and use frequently occurring irregular plural nouns (e.g., <i>feet, children, teeth, mice, fish</i>).</li> <li>c. Use reflexive pronouns (e.g., <i>myself, ourselves</i>).</li> <li>d. Form and use the past tense of frequently occurring irregular verbs (e.g., <i>sat, hid, told</i>).</li> <li>e. Use adjectives and adverbs, and choose between them depending on what is to be modified.</li> <li>f. Produce, expand, and rearrange complete simple and compound sentences (e.g., <i>The boy watched the movie; The little boy watched the movie; The action movie was watched by the little boy</i>).</li> </ul>
<p><b>2.</b> Observe conventions of capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> <li>a. Capitalize the first word in a sentence and the pronoun <i>I</i>.</li> <li>b. Recognize and name end punctuation.</li> <li>c. Write a letter or letters for most consonant and short-vowel sounds (phonemes).</li> <li>d. Spell simple words phonetically, drawing on knowledge of sound-letter relationships.</li> </ul>	<p><b>2.</b> Observe conventions of capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> <li>a. Capitalize dates and names of people.</li> <li>b. Use end punctuation for sentences.</li> <li>c. Use commas in dates and to separate single words in a series.</li> <li>d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.</li> <li>e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.</li> </ul>	<p><b>2.</b> Observe conventions of capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> <li>a. Capitalize holidays, product names, and geographic names.</li> <li>b. Use commas in greetings and closings of letters.</li> <li>c. Use an apostrophe to form contractions and frequently occurring possessives.</li> <li>d. Generalize learned spelling patterns when writing words (e.g., <i>cage → badge; boy → boil</i>).</li> <li>e. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.</li> </ul>
<b>Effective Language Use</b>		
<p><b>3.</b> (Begins in grade 3)</p>	<p><b>3.</b> (Begins in grade 3)</p>	<p><b>3.</b> (Begins in grade 3)</p>

Kindergartners:	Grade 1 students:	Grade 2 students:
<b>Vocabulary Acquisition and Use</b>		
<p>4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>kindergarten reading and content</i>.</p> <ul style="list-style-type: none"> <li>a. Identify new meanings for familiar words and apply them accurately (e.g., knowing <i>duck</i> as a bird and learning the verb <i>to duck</i>).</li> <li>b. Use the most frequently occurring inflections and affixes (e.g., <i>-ed</i>, <i>-s</i>, <i>re-</i>, <i>un-</i>, <i>pre-</i>, <i>-ful</i>, <i>-less</i>) as a clue to the meaning of an unknown word.</li> </ul>	<p>4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 1 reading and content</i>, choosing flexibly from an array of strategies.</p> <ul style="list-style-type: none"> <li>a. Use sentence-level context as a clue to the meaning of a word or phrase.</li> <li>b. Use frequently occurring affixes as a clue to the meaning of a word.</li> <li>c. Identify frequently occurring root words (e.g., <i>look</i>) and their inflectional forms (e.g., <i>looks</i>, <i>looked</i>, <i>looking</i>).</li> </ul>	<p>4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 2 reading and content</i>, choosing flexibly from an array of strategies.</p> <ul style="list-style-type: none"> <li>a. Use sentence-level context as a clue to the meaning of a word or phrase.</li> <li>b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., <i>happy/unhappy</i>, <i>tell/retell</i>).</li> <li>c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., <i>addition</i>, <i>additional</i>).</li> <li>d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., <i>birdhouse</i>, <i>lighthouse</i>, <i>housefly</i>; <i>bookshelf</i>, <i>notebook</i>, <i>bookmark</i>).</li> <li>e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.</li> </ul>
<p>5. With guidance and support from adults, explore word relationships and nuances in word meanings.</p> <ul style="list-style-type: none"> <li>a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.</li> <li>b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms).</li> <li>c. Identify real-life connections between words and their use (e.g., note places at school that are <i>colorful</i>).</li> <li>d. Distinguish shades of meaning among verbs describing the same general action (e.g., <i>walk</i>, <i>march</i>, <i>strut</i>, <i>prance</i>) by acting out the meanings.</li> </ul>	<p>5. With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.</p> <ul style="list-style-type: none"> <li>a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.</li> <li>b. Define words by category and by one or more key attributes (e.g., a <i>duck</i> is a bird that swims; a <i>tiger</i> is a large cat with stripes).</li> <li>c. Identify real-life connections between words and their use (e.g., note places at home that are <i>cozy</i>).</li> <li>d. Distinguish shades of meaning among verbs differing in manner (e.g., <i>look</i>, <i>peek</i>, <i>glance</i>, <i>stare</i>, <i>glare</i>, <i>scowl</i>) and adjectives differing in intensity (e.g., <i>large</i>, <i>gigantic</i>) by defining or choosing them or by acting out the meanings.</li> </ul>	<p>5. Demonstrate understanding of word relationships and nuances in word meanings.</p> <ul style="list-style-type: none"> <li>a. Identify real-life connections between words and their use (e.g., describe foods that are <i>spicy</i> or <i>juicy</i>).</li> <li>b. Distinguish shades of meaning among closely related verbs (e.g., <i>toss</i>, <i>throw</i>, <i>hurl</i>) and closely related adjectives (e.g., <i>thin</i>, <i>slender</i>, <i>skinny</i>, <i>scrawny</i>).</li> </ul>
<p>6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.</p>	<p>6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., <i>I named my hamster Nibblet because she nibbles too much because she likes that</i>).</p>	<p>6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe (e.g., <i>When other kids are happy that makes me happy</i>).</p>

## Grade 3 students:

## Grade 4 students:

## Grade 5 students:

## Conventions

- |   |   |  |
|---|---|--|
| <p><b>1.</b> Observe conventions of grammar and usage when writing or speaking.</p> <ol style="list-style-type: none"> <li>a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.</li> <li>b. Form and use regular and irregular plural nouns.</li> <li>c. Use abstract nouns (e.g., <i>childhood</i>).</li> <li>d. Form and use regular and irregular verbs.</li> <li>e. Form and use the simple (e.g., <i>I walked; I walk; I will walk</i>) verb tenses.</li> <li>f. Ensure subject-verb and pronoun-antecedent agreement.*</li> <li>g. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.</li> <li>h. Use coordinating and subordinating conjunctions.</li> <li>i. Produce simple, compound, and complex sentences.</li> </ol> | <p><b>1.</b> Observe conventions of grammar and usage when writing or speaking.</p> <ol style="list-style-type: none"> <li>a. Use relative pronouns (<i>who, whose, whom, which, that</i>) and relative adverbs (<i>where, when, why</i>).</li> <li>b. Form and use the progressive (e.g., <i>I was walking; I am walking; I will be walking</i>) verb aspects.</li> <li>c. Use modal auxiliaries (e.g., <i>can, may, must</i>) to convey various conditions.</li> <li>d. Order adjectives within sentences according to conventional patterns (e.g., <i>a small red bag</i> rather than <i>a red small bag</i>).</li> <li>e. Form and use prepositional phrases.</li> <li>f. Produce complete sentences, recognizing and correcting rhetorically poor fragments and run-ons.*</li> <li>g. Correctly use frequently confused words (e.g., <i>to, too, two; there, their</i>).*</li> </ol> | <p><b>1.</b> Observe conventions of grammar and usage when writing or speaking.</p> <ol style="list-style-type: none"> <li>a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.</li> <li>b. Form and use the perfect (e.g., <i>I had walked; I have walked; I will have walked</i>) verb aspects.</li> <li>c. Use verb tense and aspect to convey various times, sequences, states, and conditions.</li> <li>d. Recognize and correct inappropriate shifts in verb tense and aspect.*</li> <li>e. Use correlative conjunctions.</li> </ol>  |
| <p><b>2.</b> Observe conventions of capitalization, punctuation, and spelling when writing.</p> <ol style="list-style-type: none"> <li>a. Capitalize important words in titles.</li> <li>b. Use commas in addresses.</li> <li>c. Use commas and quotation marks in dialogue.</li> <li>d. Form and use possessives.</li> <li>e. Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., <i>sitting, smiled, cries, happiness</i>).</li> <li>f. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.</li> <li>g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.</li> </ol>   | <p><b>2.</b> Observe conventions of capitalization, punctuation, and spelling when writing.</p> <ol style="list-style-type: none"> <li>a. Use correct capitalization.</li> <li>b. Use commas and quotation marks to mark direct speech and quotations from a text.</li> <li>c. Use a comma before a coordinating conjunction in a compound sentence.</li> <li>d. Spell grade-appropriate words correctly, consulting references as needed.</li> </ol>   | <p><b>2.</b> Observe conventions of capitalization, punctuation, and spelling when writing.</p> <ol style="list-style-type: none"> <li>a. Use punctuation to separate items in a series.*</li> <li>b. Use a comma to separate an introductory element from the rest of the sentence.</li> <li>c. Use a comma to set off the words <i>yes</i> and <i>no</i> (e.g., <i>Yes, thank you</i>), to set off a tag question from the rest of the sentence (e.g., <i>It's true, isn't it?</i>), and to indicate direct address (e.g., <i>Is that you, Steve?</i>).</li> <li>d. Use underlining, quotation marks, or italics to indicate titles of works.</li> <li>e. Spell grade-appropriate words correctly, consulting references as needed.</li> </ol> |

## Effective Language Use

- |  |  |   |
|--|--|---|
| <p><b>3.</b> Use language to achieve particular effects when writing or speaking.</p> <ol style="list-style-type: none"> <li>a. Choose words and phrases for effect.*</li> </ol> | <p><b>3.</b> Use language to enhance meaning and achieve particular effects when writing or speaking.</p> <ol style="list-style-type: none"> <li>a. Choose words and phrases to convey ideas precisely.*</li> <li>b. Use punctuation for effect.*</li> </ol> | <p><b>3.</b> Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking.</p> <ol style="list-style-type: none"> <li>a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.</li> </ol> |
|--|--|---|

Grade 3 students:	Grade 4 students:	Grade 5 students:
<b>Vocabulary Acquisition and Use</b>		
<p>4. Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on <i>grade 3 reading and content</i>, choosing flexibly from a range of strategies.</p> <ol style="list-style-type: none"> <li>Use sentence-level context as a clue to the meaning of a word or phrase.</li> <li>Determine the meaning of the new word formed when a known affix is added to a known word (e.g., <i>agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat</i>).</li> <li>Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., <i>company, companion</i>).</li> <li>Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases.</li> </ol>	<p>4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 4 reading and content</i>, choosing flexibly from a range of strategies.</p> <ol style="list-style-type: none"> <li>Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.</li> <li>Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., <i>telegraph, photograph, autograph</i>).</li> <li>Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.</li> </ol>	<p>4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 5 reading and content</i>, choosing flexibly from a range of strategies.</p> <ol style="list-style-type: none"> <li>Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.</li> <li>Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., <i>photograph, photosynthesis</i>).</li> <li>Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.</li> </ol>
<p>5. Demonstrate understanding of word relationships and nuances in word meanings.</p> <ol style="list-style-type: none"> <li>Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., <i>take steps</i>).</li> <li>Identify real-life connections between words and their use (e.g., describe people who are <i>friendly</i> or <i>helpful</i>).</li> <li>Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., <i>knew, believed, suspected, heard, wondered</i>).</li> </ol>	<p>5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ol style="list-style-type: none"> <li>Explain the meaning of simple similes and metaphors (e.g., <i>as pretty as a picture</i>) in context.</li> <li>Recognize and explain the meaning of common idioms, adages, and proverbs.</li> <li>Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).</li> </ol>	<p>5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ol style="list-style-type: none"> <li>Interpret figurative language, including similes and metaphors, in context.</li> <li>Recognize and explain the meaning of common idioms, adages, and proverbs.</li> <li>Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.</li> </ol>
<p>6. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific vocabulary, including words and phrases that signal spatial and temporal relationships (e.g., <i>After dinner that night we went looking for them</i>).</p>	<p>6. Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary, including words and phrases that signal precise actions, emotions, or states of being (e.g., <i>quizzed, whined, stammered</i>) and words and phrases basic to a particular topic (e.g., <i>wildlife, conservation, and endangered</i> when discussing animal preservation).</p>	<p>6. Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary, including words and phrases that signal contrast, addition, and other logical relationships (e.g., <i>however, although, nevertheless, similarly, moreover, in addition</i>).</p>

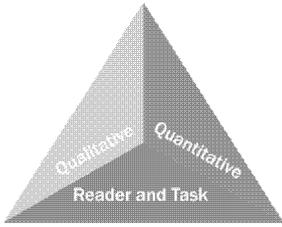
## Language Progressive Skills, by Grade

The following skills, marked with an asterisk (\*) in Language standards 1–3, are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking.

Skill	3	4	5	6	7	8	9–10	11–12
Ensure subject-verb and pronoun-antecedent agreement.								
Choose words and phrases for effect.								
Produce complete sentences, recognizing and correcting rhetorically poor fragments and run-ons.								
Correctly use frequently confused words (e.g., <i>to/too/two</i> ; <i>there/their</i> ).								
Choose words and phrases to convey ideas precisely.								
Use punctuation for effect.								
Recognize and correct inappropriate shifts in verb tense and aspect.								
Use punctuation to separate items in a series.								
Recognize and correct inappropriate shifts in pronoun number and person.								
Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).								
Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.								
Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.								
Vary sentence patterns for meaning, reader/listener interest, and style.								
Maintain consistency in style and tone.								
Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
Choose language that expresses ideas precisely and concisely, eliminating wordiness and redundancy.								
Recognize and correct inappropriate shifts in verb voice and mood.								
Use parallel structure.								

## Standard 10: Range, Quality, and Complexity of Student Reading K–5

### 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 assigned and the questions 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	Dramas	Poetry	Literary Nonfiction and Historical, Scientific, 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; technical texts, including directions, forms, and information displayed in graphs, charts, or maps; and digital sources on a range of topics

Texts Illustrating the Complexity, Quality, and Range of Student Reading K–5

\* Read-aloud  
\*\* Read-along

	Literature: Stories, Drama, Poetry	Informational Texts: Literary Nonfiction and Historical, Scientific, and Technical Texts
K <sup>1</sup>	<ul style="list-style-type: none"> <li>▪ <i>Over in the Meadow</i> by John Langstaff (traditional) (c1800)*</li> <li>▪ <i>A Boy, a Dog, and a Frog</i> by Mercer Mayer (1967)</li> <li>▪ <i>Pancakes for Breakfast</i> by Tomie DePaola (1978)</li> <li>▪ <i>A Story A Story</i> by Gail E. Haley (1970)*</li> <li>▪ <i>Kitten’s First Full Moon</i> by Kevin Henkes (2004)*</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>My Five Senses</i> by Alike (1962)*</li> <li>▪ <i>Truck</i> by Donald Crews (1980)</li> <li>▪ <i>I Read Signs</i> by Tana Hoban (1987)</li> <li>▪ <i>What Do You Do With a Tail Like This?</i> by Steve Jenkins and Robin Page (2003)*</li> <li>▪ <i>Amazing Whales!</i> by Sarah L. Thomson (2005)*</li> </ul>
1 <sup>1</sup>	<ul style="list-style-type: none"> <li>▪ “Mix a Pancake” by Christina G. Rossetti (1893)**</li> <li>▪ <i>Mr. Popper’s Penguins</i> by Richard Atwater (1938)*</li> <li>▪ <i>Little Bear</i> by Else Holmelund Minarik, illustrated by Maurice Sendak (1957)**</li> <li>▪ <i>Frog and Toad Together</i> by Arnold Lobel (1971)**</li> <li>▪ <i>Hi! Fly Guy</i> by Tedd Arnold (2006)</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>A Tree Is a Plant</i> by Clyde Robert Bulla, illustrated by Stacey Schuett (1960)**</li> <li>▪ <i>My Five Senses</i> by Alike (1962)**</li> <li>▪ <i>Follow the Water from Brook to Ocean</i> by Arthur Dorros (1991)**</li> <li>▪ <i>From Seed to Pumpkin</i> by Wendy Pfeffer, illustrated by James Graham Hale (2004)*</li> <li>▪ <i>How People Learned to Fly</i> by Fran Hodgkins and True Kelley (2007)*</li> </ul>
2–3	<ul style="list-style-type: none"> <li>▪ “Who Has Seen the Wind?” by Christina G. Rossetti (1893)</li> <li>▪ <i>Charlotte’s Web</i> by E. B. White (1952)*</li> <li>▪ <i>Sarah, Plain and Tall</i> by Patricia MacLachlan (1985)</li> <li>▪ <i>Tops and Bottoms</i> by Janet Stevens (1995)</li> <li>▪ <i>Poppleton in Winter</i> by Cynthia Rylant, illustrated by Mark Teague (2001)</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>A Medieval Feast</i> by Alike (1983)</li> <li>▪ <i>From Seed to Plant</i> by Gail Gibbons (1991)</li> <li>▪ <i>The Story of Ruby Bridges</i> by Robert Coles (1995)*</li> <li>▪ <i>A Drop of Water: A Book of Science and Wonder</i> by Walter Wick (1997)</li> <li>▪ <i>Moonshot: The Flight of Apollo 11</i> by Brian Floca (2009)</li> </ul>
4–5	<ul style="list-style-type: none"> <li>• <i>Alice’s Adventures in Wonderland</i> by Lewis Carroll (1865)</li> <li>• “Casey at the Bat” by Ernest Lawrence Thayer (1888)</li> <li>• <i>The Black Stallion</i> by Walter Farley (1941)</li> <li>• “Zlateh the Goat” by Isaac Bashevis Singer (1984)</li> <li>• <i>Bud, Not Buddy</i> by Christopher Paul Curtis (1999)</li> <li>• <i>The Birchbark House</i> by Louise Erdrich (1999)</li> <li>• <i>Where the Mountain Meets the Moon</i> by Grace Lin (2009)</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>Discovering Mars</i> by Melvin Berger (1992)</li> <li>▪ <i>Hurricanes: Earth’s Mightiest Storms</i> by Patricia Lauber (1996)</li> <li>▪ <i>A History of US</i> by Joy Hakim (2005)</li> <li>▪ <i>Horses</i> by Seymour Simon (2006)</li> <li>▪ <i>Quest for the Tree Kangaroo: An Expedition to the Cloud Forest of New Guinea</i> by Sy Montgomery (2006)</li> </ul>

**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, quality, and range.) 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 those topics or themes in depth. On the next page is an example of progressions of texts building knowledge across grade levels.

<sup>1</sup>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
<p><b>The Human Body</b></p> <p>Students can begin learning about the human body starting in kindergarten and then review and extend their learning during each subsequent grade.</p>	<p>The five senses and associated body parts</p> <ul style="list-style-type: none"> <li>▪ <i>My Five Senses</i> by Alikei (1989)</li> <li>▪ <i>Hearing</i> by Maria Rius (1985)</li> <li>▪ <i>Sight</i> by Maria Rius (1985)</li> <li>▪ <i>Smell</i> by Maria Rius (1985)</li> <li>▪ <i>Taste</i> by Maria Rius (1985)</li> <li>▪ <i>Touch</i> by Maria Rius (1985)</li> </ul> <p>Taking care of your body: Overview (hygiene, diet, exercise, rest)</p> <ul style="list-style-type: none"> <li>▪ <i>My Amazing Body: A First Look at Health &amp; Fitness</i> by Pat Thomas (2001)</li> <li>▪ <i>Get Up and Go!</i> by Nancy Carlson (2008)</li> <li>▪ <i>Go Wash Up</i> by Doering Tourville (2008)</li> <li>▪ <i>Sleep</i> by Paul Showers (1997)</li> <li>▪ <i>Fuel the Body</i> by Doering Tourville (2008)</li> </ul>	<p>Introduction to the systems of the human body and associated body parts</p> <ul style="list-style-type: none"> <li>▪ <i>Under Your Skin: Your Amazing Body</i> by Mick Manning (2007)</li> <li>▪ <i>Me and My Amazing Body</i> by Joan Sweency (1999)</li> <li>▪ <i>The Human Body</i> by Gallimard Jeunesse (2007)</li> <li>▪ <i>The Busy Body Book</i> by Lizzy Rockwell (2008)</li> <li>▪ <i>First Encyclopedia of the Human Body</i> by Fiona Chandler (2004)</li> </ul> <p>Taking care of your body: Germs, diseases, and preventing illness</p> <ul style="list-style-type: none"> <li>▪ <i>Germs Make Me Sick</i> by Marilyn Berger (1995)</li> <li>▪ <i>Tiny Life on Your Body</i> by Christine Taylor-Butler (2005)</li> <li>▪ <i>Germ Stories</i> by Arthur Kornberg (2007)</li> <li>▪ <i>All About Scabs</i> by Genichiro Yagu (1998)</li> </ul>	<p>Digestive and excretory systems</p> <ul style="list-style-type: none"> <li>▪ <i>What Happens to a Hamburger</i> by Paul Showers (1985)</li> <li>▪ <i>The Digestive System</i> by Christine Taylor-Butler (2008)</li> <li>▪ <i>The Digestive System</i> by Rebecca L. Johnson (2006)</li> <li>▪ <i>The Digestive System</i> by Kristin Petrie (2007)</li> </ul> <p>Taking care of your body: healthy eating and nutrition</p> <ul style="list-style-type: none"> <li>▪ <i>Good Enough to Eat</i> by Lizzy Rockwell (1999)</li> <li>▪ <i>Showdown at the Food Pyramid</i> by Rex Barron (2004)</li> </ul> <p>Muscular, skeletal, and nervous systems</p> <ul style="list-style-type: none"> <li>▪ <i>The Mighty Muscular and Skeletal Systems</i> Crabtree Publishing (2009)</li> <li>▪ <i>Muscles</i> by Seymour Simon (1998)</li> <li>▪ <i>Bones</i> by Seymour Simon (1998)</li> <li>▪ <i>The Astounding Nervous System</i> Crabtree Publishing (2009)</li> <li>▪ <i>The Nervous System</i> by Joelle Riley (2004)</li> </ul>	<p>Circulatory system</p> <ul style="list-style-type: none"> <li>▪ <i>The Heart</i> by Seymour Simon (2006)</li> <li>▪ <i>The Heart and Circulation</i> by Carol Ballard (2005)</li> <li>▪ <i>The Circulatory System</i> by Kristin Petrie (2007)</li> <li>▪ <i>The Amazing Circulatory System</i> by John Burstein (2009)</li> </ul> <p>Respiratory system</p> <ul style="list-style-type: none"> <li>▪ <i>The Lungs</i> by Seymour Simon (2007)</li> <li>▪ <i>The Respiratory System</i> by Susan Glass (2004)</li> <li>▪ <i>The Respiratory System</i> by Kristin Petrie (2007)</li> <li>▪ <i>The Remarkable Respiratory System</i> by John Burstein (2009)</li> </ul> <p>Endocrine system</p> <ul style="list-style-type: none"> <li>▪ <i>The Endocrine System</i> by Rebecca Olien (2006)</li> <li>▪ <i>The Exciting Endocrine System</i> by John Burstein (2009)</li> </ul>

# Standards for English Language Arts

6-12

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DRAFT

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## College and Career Readiness Anchor Standards for Reading

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade. They relate to their College and Career Readiness (CCR) counterparts by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### 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 how and why individuals, events, and ideas 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 analyze 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, chapter, scene, or stanza) 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. Integrate and evaluate content presented graphically, visually, orally, and multimodally as well as in words within and across print and digital sources.
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
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 of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

\*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.

### 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 seminal 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

[RL]

The following standards 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. Students advancing through the grades are expected to meet each year’s grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

Grade 6 students:	Grade 7 students:	Grade 8 students:
<b>Key Ideas and Details</b>		
1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
2. Determine a theme or central idea of a text and analyze its development over the course of the text; summarize the text.	2. Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; summarize the text.	2. Determine a theme or central idea of a text and analyze its development over the course of the text, including how it is conveyed through particular details; provide an accurate summary of the text distinct from personal opinions or judgments.
3. Describe how a particular story’s or drama’s plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.	3. Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).	3. Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.
<b>Craft and Structure</b>		
4. Determine the meaning of words and phrases as they are used in a text, including figures of speech and the connotations (associations) of particular words and phrases; analyze the impact of a specific word choice on meaning and tone.	4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.	4. Determine the meaning of words and phrases as they are used in a text, including analogies or allusions to other texts; analyze the impact of specific word choices on meaning and tone.
5. Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.	5. Analyze how a drama’s or poem’s form or structure (e.g., sonnet, soliloquy) contributes to its meaning.	5. Compare and contrast the structure of two or more texts and analyze how the differing structure of each text contributes to its meaning and style.
6. Explain how an author establishes and develops the point of view of the narrator or speaker in a text.	6. Analyze how an author establishes and contrasts the points of view of different characters or narrators in a text.	6. Explain how differences in the point of view of characters and the audience or reader (e.g., created through the use of dramatic irony) creates such effects as suspense or humor.
<b>Integration of Knowledge and Ideas</b>		
7. Compare and contrast the experience of reading a story, poem, or drama to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch.	7. Compare and contrast a story, poem, or drama to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, camera focus and angles).	7. Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors.
8. (Not applicable to literature)	8. (Not applicable to literature)	8. (Not applicable to literature)

Grade 6 students:	Grade 7 students:	Grade 8 students:
<i>Integration of Knowledge and Ideas</i>		
<p><b>9.</b> Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.</p>	<p><b>9.</b> Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.</p>	<p><b>9.</b> Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new.</p>
<i>Range of Reading and Level of Text Complexity</i>		
<p><b>10.</b> By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</p>	<p><b>10.</b> By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as necessary at the high end of the range.</p>	<p><b>10.</b> By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band independently and proficiently.</p>

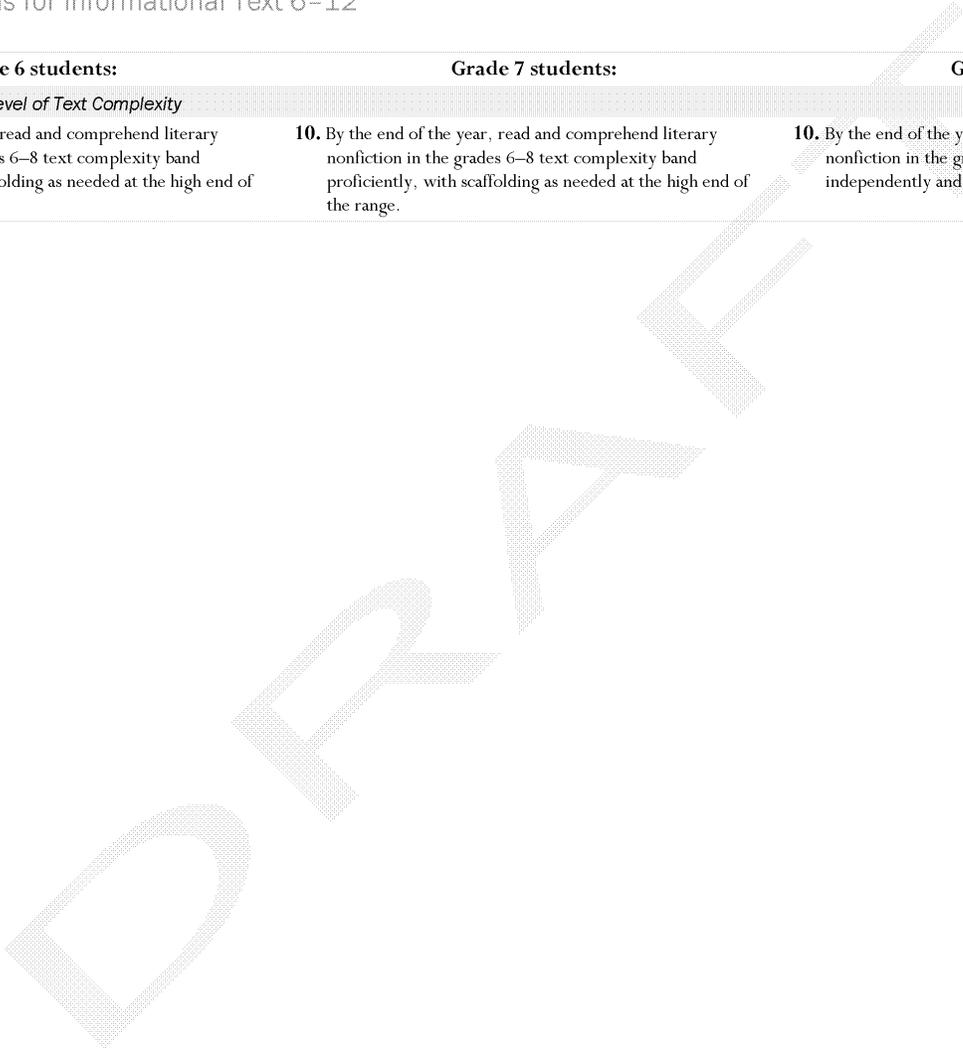
Grades 9–10 students:	Grades 11–12 students:
<b>Key Ideas and Details</b>	
<p>1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p>	<p>1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.</p>
<p>2. Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.</p>	<p>2. Determine two or more themes or central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to produce a complex account; provide an objective summary of the text.</p>
<p>3. Analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.</p>	<p>3. Evaluate various explanations for characters' actions or for events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.</p>
<b>Craft and Structure</b>	
<p>4. Determine the meaning of words and phrases as they are used in the text and analyze the cumulative impact of several word choices on meaning and tone (e.g., how the language evokes a sense of time and place; how it sets a formal or informal tone).</p>	<p>4. Determine the meaning of words and phrases as they are used in the text and analyze the impact of specific word choices on meaning and tone, including words with multiple meanings or language that is particularly fresh, engaging, or beautiful. (Include Shakespeare as well as other authors.)</p>
<p>5. Analyze how an author's choices concerning how to structure a text, order events within it (e.g., parallel plots), and manipulate time (e.g., pacing, flashbacks) create such effects as mystery, tension, or surprise.</p>	<p>5. Analyze how an author's choices concerning how to structure specific parts of a text (e.g., the choice at what point to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact.</p>
<p>6. Analyze a case in which grasping point of view requires distinguishing what is directly stated from what is implied (e.g., through the use of satire, sarcasm, irony, or understatement).</p>	<p>6. Analyze differences and similarities in points of view or cultural experience as reflected in various works from different countries, drawing on a wide reading of world literature.</p>
<b>Integration of Knowledge and Ideas</b>	
<p>7. Analyze the representation of a subject or a key scene in two different artistic mediums, including what is emphasized or absent in each treatment (e.g., Auden's "Musée des Beaux Arts" and Breughel's <i>Landscape with the Fall of Icarus</i>).</p>	<p>7. Analyze multiple interpretations of a story or drama (e.g., recorded or live production of a play or novel), evaluating how each version interprets the source text. (Include at least one play by Shakespeare as well as one play by an American dramatist.)</p>
<p>8. (Not applicable to literature)</p>	<p>8. (Not applicable to literature)</p>
<p>9. Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, drawing on how two or more texts from the same period treat similar themes or topics.</p>	<p>9. Analyze how an author draws on and transforms source material in a specific work (e.g., how Shakespeare draws on Ovid or the Bible or how a later author draws on a play by Shakespeare) in order to evaluate how the texts treat similar themes or topics.</p>
<b>Range of Reading and Level of Text Complexity</b>	
<p>10. By the end of grade 9, read and comprehend literature, including stories, dramas, and poems, in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range.  By the end of grade 10, read and comprehend literature, including stories, dramas, and poems, in the grades 9–10 text complexity band independently and proficiently.</p>	<p>10. By the end of grade 11, read and comprehend literature, including stories, dramas, and poems, in the grades 11–CCR text complexity band proficiently, with scaffolding as needed at the high end of the range.  By the end of grade 12, read and comprehend literature, including stories, dramas, and poems, in the grades 11–CCR text complexity band independently and proficiently.</p>

Reading Standards for Informational Text 6–12

[RI]

Grade 6 students:	Grade 7 students:	Grade 8 students:
<b>Key Ideas and Details</b>		
1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1. Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
2. Determine a central idea of a text and analyze its development over the course of the text; summarize the text.	2. Determine two or more central ideas in a text and analyze their development over the course of the text and their relationship to one another; summarize the text.	2. Determine a central idea of a text and analyze its development over the course of the text, including how it is conveyed through particular details; provide an accurate summary of the text distinct from personal opinions or judgments.
3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).	3. Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).	3. Analyze how a text makes connections among and distinctions between key individuals, ideas, or events (e.g., through comparisons, analogies, or categories).
<b>Craft and Structure</b>		
4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.	4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.	4. Determine the meaning of words and phrases as they are used in a text, including analogies or allusions to other texts; analyze the impact of specific word choices on meaning and tone.
5. Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.	5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and 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. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.	6. Determine 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. Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.
<b>Integration of Knowledge and Ideas</b>		
7. Integrate information presented in different formats (e.g., print or digital text, video, multimedia) to develop a coherent understanding of a topic or issue.	7. Compare and contrast the experience of reading a text to experiencing an audio, video, or multimedia version of it, analyzing the text's portrayal in each medium (e.g., how the delivery of a speech affects the impact of the words).	7. Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.
8. Delineate and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.	8. Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is sufficient to support the claims.	8. Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient and identifying when irrelevant evidence is introduced.
9. Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person).	9. Analyze 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.	9. Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.

Grade 6 students:	Grade 7 students:	Grade 8 students:
<i>Range of Reading and Level of Text Complexity</i>		
<b>10.</b> By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	<b>10.</b> By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	<b>10.</b> By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band independently and proficiently.



**Grades 9–10 students:**

**Grades 11–12 students:**

*Key Ideas and Details*

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</li> <li>2. Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.</li> <li>3. Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.</li> </ol> | <ol style="list-style-type: none"> <li>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 matters uncertain.</li> <li>2. Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis; provide an objective summary of the text.</li> <li>3. Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.</li> </ol> |
|---|--|

*Craft and Structure*

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>4. Determine the meaning of words and phrases as they are used in a text and analyze the cumulative impact of several word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).</li> <li>5. Analyze in detail how an author’s ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).</li> <li>6. Analyze documents of historical and literary significance, including seminal U.S. documents (e.g., the Declaration of Independence, the Preamble to the Constitution, the Bill of Rights), for their premises and purposes.</li> </ol> | <ol style="list-style-type: none"> <li>4. Determine the meaning of words and phrases as they are used in a text and analyze 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 <i>faction</i> in <i>Federalist</i> No. 10).</li> <li>5. Analyze and 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.</li> <li>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., <i>The Federalist</i>, landmark U.S. Supreme Court majority opinions and dissents).</li> </ol> |
|--|---|

*Integration of Knowledge and Ideas*

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|---|--|
| <ol style="list-style-type: none"> <li>7. Evaluate the accounts of a subject in different mediums (e.g., a person’s life story told in print or digital text, film, or multimedia), analyzing each version for which details are emphasized and how the account unfolds.</li> <li>8. Delineate and evaluate the argument and claims in a text, assessing the relevance and sufficiency of the evidence and the validity of the reasoning and identifying false statements and fallacious reasoning.</li> <li>9. Analyze a case in which authors disagree with or otherwise respond to one another’s ideas or accounts of events, evaluating the strength of each author’s evidence, reasoning, and interpretation.</li> </ol> | <ol style="list-style-type: none"> <li>7. Integrate and evaluate multiple sources of information presented in different formats (e.g., print or digital text, video, multimedia) in order to address a question or solve a problem, resolving conflicting information when possible.</li> <li>8. Delineate and evaluate the argument and claims in a text, assessing the relevance and sufficiency of the evidence and the validity of the reasoning, identifying and evaluating stated and unstated premises and assumptions.</li> <li>9. Synthesize information, explanations, and arguments from a range of sources to provide a coherent account of events or ideas, resolving conflicting information when possible.</li> </ol> |
|---|--|

*Range of Reading and Level of Text Complexity*

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>10. By the end of grade 9, read and comprehend literary nonfiction in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range.<br/>By the end of grade 10, read and comprehend literary nonfiction in the grades 9–10 text complexity band independently and proficiently.</li> </ol> | <ol style="list-style-type: none"> <li>10. By the end of grade 11, read and comprehend literary nonfiction in the grades 11–CCR text complexity band proficiently, with scaffolding as needed at the high end of the range.<br/>By the end of grade 12, read and comprehend literary nonfiction in the grades 11–CCR text complexity band independently and proficiently.</li> </ol> |
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## College and Career Readiness Anchor Standards for Writing

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade. They relate to their College and Career Readiness (CCR) counterparts by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### Text Types and Purposes<sup>1</sup>

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

### Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.<sup>2</sup>
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

### Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

### 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.

<sup>1</sup>These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.

<sup>2</sup>See standards 1–3 in Language, pages 53–57, for specific editing expectations.

### 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 know how to combine elements of different kinds of writing—for example, to use narrative strategies within argument and explanation within narrative—to produce complex and nuanced writing. 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.*

## Writing Standards 6–12

[W]

The following standards for grades 6–12 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Each year in their writing, students should demonstrate increasing sophistication in all aspects of language use, from vocabulary and syntax to the development and organization of ideas, and they should address increasingly demanding content and sources. Students advancing through the grades are expected to meet each year’s grade-specific standards and retain or further develop skills and understandings mastered in preceding grades. The expected growth in student writing ability is reflected both in the standards themselves and in the collection of annotated student writing samples in Appendix C.

### Grade 6 students:

### Grade 7 students:

### Grade 8 students:

#### Text Types and Purposes

- | Grade 6 students:  | Grade 7 students:   | Grade 8 students:   |
|--|---|---|
| <p>1. Write arguments to support claims with clear reasons and relevant evidence.</p> <ol style="list-style-type: none"><li>Introduce claim(s) and organize the reasons and evidence clearly.</li><li>Support claim(s) with clear reasons and relevant evidence, demonstrating an understanding of the topic or text.</li><li>Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.</li><li>Establish and maintain a formal style.</li><li>Provide a concluding statement or section that follows from the argument presented.</li></ol>  | <p>1. Write arguments to support claims with clear reasons and relevant evidence.</p> <ol style="list-style-type: none"><li>Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.</li><li>Support claim(s) with logical reasoning and relevant evidence, demonstrating an understanding of the topic or text.</li><li>Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.</li><li>Establish and maintain a formal style.</li><li>Provide a concluding statement or section that follows from and supports the argument presented.</li></ol>  | <p>1. Write arguments to support claims with clear reasons and relevant evidence.</p> <ol style="list-style-type: none"><li>Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.</li><li>Support claim(s) with logical reasoning and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.</li><li>Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.</li><li>Establish and maintain a formal style.</li><li>Provide a concluding statement or section that follows from and supports the argument presented.</li></ol>  |
| <p>2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <ol style="list-style-type: none"><li>Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li><li>Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li><li>Use appropriate transitions to clarify the relationships among ideas and concepts.</li><li>Use precise language and domain-specific vocabulary to inform about or explain the topic.</li><li>Establish and maintain a formal style.</li><li>Provide a concluding statement or section that follows from the information or explanation presented.</li></ol> | <p>2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <ol style="list-style-type: none"><li>Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li><li>Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.</li><li>Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.</li><li>Use precise language and domain-specific vocabulary to inform about or explain the topic.</li><li>Establish and maintain a formal style.</li><li>Provide a concluding statement or section that follows from and supports the information or explanation presented.</li></ol> | <p>2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <ol style="list-style-type: none"><li>Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li><li>Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</li><li>Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</li><li>Use precise language and domain-specific vocabulary to inform about or explain the topic.</li><li>Establish and maintain a formal style.</li><li>Provide a concluding statement or section that follows from and supports the information or explanation presented.</li></ol> |

**Grade 6 students:**

**Grade 7 students:**

**Grade 8 students:**

*Text Types and Purposes (continued)*

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| <p><b>3.</b> Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</p> <ul style="list-style-type: none"> <li>a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.</li> <li>b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.</li> <li>c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.</li> <li>d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.</li> <li>e. Provide a conclusion that follows from the narrated experiences or events.</li> </ul> | <p><b>3.</b> Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</p> <ul style="list-style-type: none"> <li>a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.</li> <li>b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.</li> <li>c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.</li> <li>d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.</li> <li>e. Provide a conclusion that follows from and reflects on the narrated experiences or events.</li> </ul> | <p><b>3.</b> Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.</p> <ul style="list-style-type: none"> <li>a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.</li> <li>b. Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters.</li> <li>c. Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events.</li> <li>d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.</li> <li>e. Provide a conclusion that follows from and reflects on the narrated experiences or events.</li> </ul> |
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*Production and Distribution of Writing*

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|---|---|---|
| <p><b>4.</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p> | <p><b>4.</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p>           | <p><b>4.</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p>           |
| <p><b>5.</b> With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.</p>  | <p><b>5.</b> With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.</p> | <p><b>5.</b> With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.</p> |
| <p><b>6.</b> Use technology, including the Internet, to produce and publish a minimum of three pages of writing as well as to interact and collaborate with others.</p>   | <p><b>6.</b> Use technology, including the Internet, to produce and publish a minimum of four pages of writing as well as to interact and collaborate with others.</p>  | <p><b>6.</b> Use technology, including the Internet, to produce and publish a minimum of five pages of writing as well as to interact and collaborate with others.</p>  |

Grade 6 students:	Grade 7 students:	Grade 8 students:
<i>Research to Build and Present Knowledge</i>		
<p>7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.</p>	<p>7. Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.</p>	<p>7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.</p>
<p>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 providing basic bibliographic information for sources.</p>	<p>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 while avoiding plagiarism and following a standard format for citation.</p>	<p>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 while avoiding plagiarism and following a standard format for citation.</p>
<p>9. Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply <i>grade 6 Reading standards</i> to literature (e.g., “Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.”).</p> <p>b. Apply <i>grade 6 Reading standards</i> to literary nonfiction (e.g., “Delineate and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not”).</p>	<p>9. Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply <i>grade 7 Reading standards</i> to literature (e.g., “Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history”).</p> <p>b. Apply <i>grade 7 Reading standards</i> to literary nonfiction (e.g., “Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is sufficient to support the claims”).</p>	<p>9. Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply <i>grade 8 Reading standards</i> to literature (e.g., “Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new”).</p> <p>b. Apply <i>grade 8 Reading standards</i> to literary nonfiction (e.g., “Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient and identifying when irrelevant evidence is introduced”).</p>
<i>Range of Writing</i>		
<p>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 discipline-specific tasks, purposes, and audiences.</p>	<p>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 discipline-specific tasks, purposes, and audiences.</p>	<p>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 discipline-specific tasks, purposes, and audiences.</p>

**Grades 9–10 students:**

**Grades 11–12 students:**

*Text Types and Purposes*

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
  - a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.
  - b. Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience’s knowledge level and concerns.
  - c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
  - d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
  - e. Provide a concluding statement or section that follows from and supports the argument presented.
  
2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
  - a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience’s knowledge of the topic.
  - c. Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
  - d. Use precise language and domain-specific vocabulary to manage the complexity of the topic.
  - e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
  - f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
  - a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.
  - b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience’s knowledge level, concerns, values, and possible biases.
  - c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
  - d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
  - e. Provide a concluding statement or section that follows from and supports the argument presented.
  
2. Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
  - a. Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
  - b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience’s knowledge of the topic.
  - c. Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
  - d. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic.
  - e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
  - f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

**Grades 9–10 students:**

**Grades 11–12 students:**

*Text Types and Purposes (continued)*

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|---|---|
| <p><b>3.</b> Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.</p> <ul style="list-style-type: none"> <li>a. Engage and orient the reader by setting out a problem, situation, or observation, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.</li> <li>b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.</li> <li>c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole.</li> <li>d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.</li> <li>e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.</li> </ul> | <p><b>3.</b> Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.</p> <ul style="list-style-type: none"> <li>a. Engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.</li> <li>b. Use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.</li> <li>c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution).</li> <li>d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.</li> <li>e. Provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.</li> </ul> |
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*Production and Distribution of Writing*

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| <p><b>4.</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p>                   | <p><b>4.</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)</p> |
| <p><b>5.</b> Develop and 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.</p>   | <p><b>5.</b> Develop and 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.</p>                       |
| <p><b>6.</b> Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology’s capacity to link to other information and to display information flexibly and dynamically.</p> | <p><b>6.</b> Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.</p>                                   |

*Research to Build and Present Knowledge*

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| <p><b>7.</b> Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>  | <p><b>7.</b> Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>   |
| <p><b>8.</b> Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.</p> | <p><b>8.</b> Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> |

**Grades 9–10 students:****Grades 11–12 students:***Research to Build and Present Knowledge (continued)*

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| <p><b>9.</b> Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply <i>grades 9–10 Reading standards</i> to literature (e.g., “Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, drawing on how two or more texts from the same period treat similar themes or topics”).</p> <p>b. Apply <i>grades 9–10 Reading standards</i> to literary nonfiction (e.g., “Delineate and evaluate the argument and claims in a text, assessing the relevance and sufficiency of the evidence and the validity of the reasoning and identifying false statements and fallacious reasoning”).</p> | <p><b>9.</b> Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p>a. Apply <i>grades 11–12 Reading standards</i> to literature (e.g., “Analyze how an author draws on and transforms source material in a specific work (e.g., how Shakespeare draws on Ovid or the Bible or how a later author draws on a play by Shakespeare) in order to evaluate how the texts treat similar themes or topics”).</p> <p>b. Apply <i>grades 11–12 Reading standards</i> to literary nonfiction (e.g., “Delineate and evaluate the argument and claims in a text, assessing the relevance and sufficiency of the evidence and the validity of the reasoning, identifying and evaluating stated and unstated premises and assumptions”).</p> |
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*Range of Writing*

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| <p><b>10.</b> 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.</p> | <p><b>10.</b> 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.</p> |
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## College and Career Readiness Anchor Standards for Speaking and Listening

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade. They relate to their College and Career Readiness (CCR) counterparts by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### *Comprehension and Collaboration*

1. Prepare for and participate effectively in a range of conversations and collaborations, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate content from multiple graphical, visual, oral, or multimodal sources.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

### *Presentation of Knowledge and Ideas*

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating 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—as part of a whole class, in small groups, 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

[SL]

The following standards for grades 6–12 offer a focus for instruction in each year to help ensure that students gain adequate mastery of a range of skills and applications. Students advancing through the grades are expected to meet each year’s grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

Grade 6 students:	Grade 7 students:	Grade 8 students:
<b>Comprehension and Collaboration</b>		
<p><b>1.</b> Engage effectively in a range of collaborative discussions (one-on-one and in groups) on <i>grade 6 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly.</p> <p>a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</p> <p>b. With guidance and support from adults, work with peers to set rules for collegial discussions, clear goals and deadlines, and individual roles as needed.</p> <p>c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.</p> <p>d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.</p>	<p><b>1.</b> Engage effectively in a range of collaborative discussions (one-on-one and in groups) on <i>grade 7 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly.</p> <p>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</p> <p>b. Work with peers to set rules for collegial discussions, clear goals and deadlines, and individual roles as needed.</p> <p>c. Pose questions that elicit elaboration and respond to others’ questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.</p> <p>d. Acknowledge new information expressed by others and, when warranted, modify their own views and understanding.</p>	<p><b>1.</b> Engage effectively in a range of collaborative discussions (one-on-one and in groups) on <i>grade 8 topics, texts, and issues</i>, building on others’ ideas and expressing their own clearly.</p> <p>a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.</p> <p>b. Work with peers to set rules for collegial discussions, clear goals and deadlines, and individual roles as needed.</p> <p>c. Pose questions that connect the ideas of several speakers and elicit elaboration, and respond to others’ questions and comments with relevant evidence, observations, and ideas.</p> <p>d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views and understanding in light of the evidence presented.</p>
<p><b>2.</b> Interpret information presented in graphical, oral, visual or multimodal formats and explain how it contributes to a topic, text, or issue under study.</p>	<p><b>2.</b> Analyze the main ideas and supporting details presented in graphical, oral, visual, or multimodal formats and explain how the ideas clarify a topic, text, or issue under study.</p>	<p><b>2.</b> Determine the purpose of information in graphical, oral, visual, or multimodal formats and evaluate the motives (e.g., social, commercial, political) behind its presentation.</p>
<p><b>3.</b> Delineate a speaker’s argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.</p>	<p><b>3.</b> Delineate a speaker’s argument and specific claims, evaluating the soundness of the reasoning and the relevance of the evidence.</p>	<p><b>3.</b> Delineate a speaker’s argument and specific claims, evaluating the validity of the reasoning and sufficiency of the evidence.</p>
<b>Presentation of Knowledge and Ideas</b>		
<p><b>4.</b> Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.</p>	<p><b>4.</b> Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.</p>	<p><b>4.</b> Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.</p>
<p><b>5.</b> Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.</p>	<p><b>5.</b> Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.</p>	<p><b>5.</b> Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.</p>
<p><b>6.</b> Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See standards 1–3 in Language, pages 53–57, for specific expectations.)</p>	<p><b>6.</b> Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See standards 1–3 in Language, pages 53–57, for specific expectations.)</p>	<p><b>6.</b> Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See standards 1–3 in Language, pages 53–57, for specific expectations.)</p>

**Grades 9–10 students:****Grades 11–12 students:****Comprehension and Collaboration**

1. Initiate and participate effectively in a range of collaborative discussions (one-on-one and in groups) on *grades 9–10 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively.
  - a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
  - b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.
  - c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.
  - d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.
2. Synthesize information from multiple graphical, visual, or multimodal sources with other information presented orally, noting any discrepancies among the data.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.

1. Initiate and participate effectively in a range of collaborative discussions (one-on-one and in groups) on *grades 11–12 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively.
  - a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
  - b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.
  - c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.
  - d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.
2. Integrate information from multiple graphical, oral, visual, or multimodal sources in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and resolving conflicting information when possible.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.

**Presentation of Knowledge and Ideas**

4. Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
5. Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See standards 1–3 in Language, pages 53–57, for specific expectations.)

4. Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.
5. Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
6. Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate. (See standards 1–3 in Language, pages 53–57, for specific expectations.)

## College and Career Readiness Anchor Standards for Language

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade. They relate to their College and Career Readiness (CCR) counterparts by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### Conventions

1. Demonstrate command of the conventions of standard English grammar and usage.
2. Demonstrate command of the conventions of capitalization, punctuation, and spelling.

### Effective Language Use

3. Use language to enhance meaning, convey style, and achieve particular effects when writing and speaking.

### Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of word relationships and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific vocabulary sufficient for reading, writing, speaking, and listening at the college and career readiness level.

### 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 grammar, usage, and mechanics. At the same time, they must come to appreciate that language is as at least as much a matter of craft as of rules and be able to use words, syntax, and punctuation to achieve particular rhetorical effects. They must also have extensive vocabularies, built through reading and study, enabling them to comprehend complex texts and engage in purposeful writing about and conversations around content. They need to become skilled in determining or clarifying the meaning of words and phrases 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, effective language use, and vocabulary are unimportant to reading, writing, speaking, and listening; indeed, they are inseparable from such contexts.*

## Language Standards 6–12

[L]

The following standards for grades 6–12 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Students advancing through the grades are expected to meet each year’s grade-specific standards and retain or further develop skills and understandings mastered in preceding grades. Beginning in grade 3, skills and understandings that are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking are marked with an asterisk (\*). See the table on page 57 for a complete listing and Appendix A for an example of how these skills develop in sophistication.

Grade 6 students:	Grade 7 students:	Grade 8 students:
<b>Conventions</b>		
<p><b>1.</b> Observe conventions of grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"><li>a. Ensure that pronouns are in the proper case (subjective, objective, possessive).</li><li>b. Use intensive pronouns (e.g., <i>myself</i>, <i>ourselves</i>).</li><li>c. Recognize and correct inappropriate shifts in pronoun number and person.*</li><li>d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).*</li><li>e. Recognize variations from standard English in their own and others’ writing and speaking, and identify and use strategies to improve expression in conventional language.*</li></ul>	<p><b>1.</b> Observe conventions of grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"><li>a. Explain the function of phrases and clauses in general and their function in specific sentences.</li><li>b. Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.</li><li>c. Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.*</li></ul>	<p><b>1.</b> Observe conventions of grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"><li>a. Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences.</li><li>b. Form and use verbs in the active and passive voice.</li><li>c. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.</li><li>d. Recognize and correct inappropriate shifts in verb voice and mood.*</li></ul>
<p><b>2.</b> Observe conventions of capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"><li>a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.*</li><li>b. Spell correctly.</li></ul>	<p><b>2.</b> Observe conventions of capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"><li>a. Use a comma to separate coordinate adjectives (e.g., <i>It was a fascinating, enjoyable movie</i> but not <i>He wore an old[, ] green shirt</i>).</li><li>b. Spell correctly.</li></ul>	<p><b>2.</b> Observe conventions of capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"><li>a. Use punctuation (comma, ellipsis, dash) to indicate a pause or break.</li><li>b. Use an ellipsis to indicate an omission.</li><li>c. Spell correctly.</li></ul>
<b>Effective Language Use</b>		
<p><b>3.</b> Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking.</p> <ul style="list-style-type: none"><li>a. Vary sentence patterns for meaning, reader/listener interest, and style.*</li><li>b. Maintain consistency in style and tone.*</li></ul>	<p><b>3.</b> Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking.</p> <ul style="list-style-type: none"><li>a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.*</li></ul>	<p><b>3.</b> Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking.</p> <ul style="list-style-type: none"><li>a. Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).</li></ul>

Grade 6 students:	Grade 7 students:	Grade 8 students:
<b>Vocabulary Acquisition and Use</b>		
<p>4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 6 reading and content</i>, choosing flexibly from a range of strategies.</p> <ol style="list-style-type: none"> <li>Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.</li> <li>Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>audience, auditory, audible</i>).</li> <li>Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</li> <li>Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</li> </ol> <p>5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ol style="list-style-type: none"> <li>Interpret figures of speech (e.g., personification) in context.</li> <li>Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.</li> <li>Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>stingy, scrimping, economical, unwasteful, thrifty</i>).</li> </ol> <p>6. Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary.</p>	<p>4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 7 reading and content</i>, choosing flexibly from a range of strategies.</p> <ol style="list-style-type: none"> <li>Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.</li> <li>Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>belligerent, bellicose, rebel</i>).</li> <li>Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</li> <li>Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</li> </ol> <p>5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ol style="list-style-type: none"> <li>Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.</li> <li>Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words.</li> <li>Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>refined, respectful, polite, diplomatic, condescending</i>).</li> </ol> <p>6. Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary.</p>	<p>4. Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on <i>grade 8 reading and content</i>, choosing flexibly from a range of strategies.</p> <ol style="list-style-type: none"> <li>Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.</li> <li>Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., <i>precede, recede, secede</i>).</li> <li>Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.</li> <li>Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</li> </ol> <p>5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ol style="list-style-type: none"> <li>Interpret figures of speech (e.g. verbal irony, puns) in context.</li> <li>Use the relationship between particular words to better understand each of the words.</li> <li>Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., <i>bullheaded, willful, firm, persistent, resolute</i>).</li> </ol> <p>6. Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary.</p>

Grades 9–10 students:	Grades 11–12 students:
<b>Conventions</b>	
<p>1. Observe conventions of grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> <li>a. Use parallel structure.*</li> <li>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.</li> </ul> <p>2. Observe conventions of capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> <li>a. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.</li> <li>b. Use a colon to introduce a list or quotation.</li> <li>c. Spell correctly.</li> </ul>	<p>1. Observe conventions of grammar and usage when writing or speaking.</p> <ul style="list-style-type: none"> <li>a. Apply the understanding that usage is a matter of convention, can change over time, and is sometimes contested.</li> <li>b. Resolve issues of complex or contested usage, consulting references (e.g., <i>Merriam-Webster's Dictionary of English Usage</i>, <i>Garner's Modern American English</i>) as needed.</li> </ul> <p>2. Observe conventions of capitalization, punctuation, and spelling when writing.</p> <ul style="list-style-type: none"> <li>a. Observe hyphenation conventions.</li> <li>b. Spell correctly.</li> </ul>
<b>Effective Language Use</b>	
<p>3. Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking.</p> <ul style="list-style-type: none"> <li>a. Write and edit work so that it conforms to the guidelines in a style manual (e.g., <i>MLA Handbook</i>, <i>Turabian's Manual for Writers</i>) appropriate for the discipline and writing type.</li> </ul>	<p>3. Use language to enhance meaning, convey style, and achieve particular effects when writing or speaking.</p> <ul style="list-style-type: none"> <li>a. Vary syntax for effect, consulting references (e.g., Tufte's <i>Artful Sentences</i>) for guidance as needed; apply an understanding of syntax to the study of complex texts when reading.</li> </ul>
<b>Vocabulary Acquisition and Use</b>	
<p>4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grades 9–10 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> <li>a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.</li> <li>b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., <i>analyze, analysis, analytical; advocate, advocacy</i>).</li> <li>c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, or its etymology.</li> <li>d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</li> </ul> <p>5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ul style="list-style-type: none"> <li>a. Interpret figures of speech (e.g., satire, sarcasm) in context and analyze their role in the text.</li> <li>b. Analyze nuances in the meaning of words with similar denotations.</li> </ul> <p>6. Acquire and use accurately general academic and domain-specific vocabulary sufficient for reading, writing, speaking, and listening at the college and career readiness level.</p>	<p>4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grades 11–12 reading and content</i>, choosing flexibly from a range of strategies.</p> <ul style="list-style-type: none"> <li>a. Use context (e.g., the overall meaning of a sentence, paragraph, or text; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.</li> <li>b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., <i>conceive, conception, conceivable</i>).</li> <li>c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning, its part of speech, its etymology, or its standard usage.</li> <li>d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).</li> </ul> <p>5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.</p> <ul style="list-style-type: none"> <li>a. Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in the text.</li> <li>b. Analyze nuances in the meaning of words with similar denotations.</li> </ul> <p>6. Acquire and use accurately general academic and domain-specific vocabulary sufficient for reading, writing, speaking, and listening at the college and career readiness level.</p>

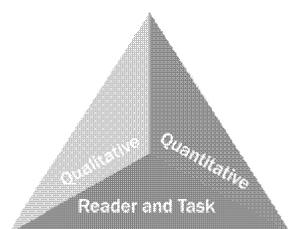
## Language Progressive Skills, by Grade

The following skills, marked with an asterisk (\*) in Language standards 1–3, are particularly likely to require continued attention in higher grades as they are applied to increasingly sophisticated writing and speaking.

Skill	3	4	5	6	7	8	9–10	11–12
Ensure subject-verb and pronoun-antecedent agreement.								
Choose words and phrases for effect.								
Produce complete sentences, recognizing and correcting rhetorically poor fragments and run-ons.								
Correctly use frequently confused words (e.g., <i>to/too/two; there/their</i> ).								
Choose words and phrases to convey ideas precisely.								
Use punctuation for effect.								
Recognize and correct inappropriate shifts in verb tense and aspect.								
Use punctuation to separate items in a series.								
Recognize and correct inappropriate shifts in pronoun number and person.								
Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).								
Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.								
Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.								
Vary sentence patterns for meaning, reader/listener interest, and style.								
Maintain consistency in style and tone.								
Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
Choose language that expresses ideas precisely and concisely, eliminating wordiness and redundancy.								
Recognize and correct inappropriate shifts in verb voice and mood.								
Use parallel structure.								

## Standard 10: Range, Quality, and Complexity of Student Reading 6–12

### 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 assigned and the questions posed

**Note:** More detailed information on text complexity and how it is measured is contained in Appendix A.

### 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, argument, and functional text 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 sources) written for a broad audience

## Texts Illustrating the Complexity, Quality, and Range of Student Reading 6–12

	Literature: Stories, Dramas, Poetry	Informational Texts: Literary Nonfiction
6–8	<ul style="list-style-type: none"> <li>▪ <i>Little Women</i> by Louisa May Alcott (1869)</li> <li>▪ <i>The Adventures of Tom Sawyer</i> by Mark Twain (1876)</li> <li>▪ “The Road Not Taken” by Robert Frost (1915)</li> <li>▪ <i>The Dark Is Rising</i> by Susan Cooper (1973)</li> <li>▪ <i>Dragonwings</i> by Laurence Yep (1975)</li> <li>▪ <i>Roll of Thunder, Hear My Cry</i> by Mildred Taylor (1976)</li> </ul>	<ul style="list-style-type: none"> <li>▪ “Letter on Thomas Jefferson” by John Adams (1776)</li> <li>▪ <i>Narrative of the Life of Frederick Douglass, an American Slave</i> by Frederick Douglass (1845)</li> <li>▪ <i>Harriet Tubman: Conductor on the Underground Railroad</i> by Ann Petry (1955)</li> <li>▪ <i>Travels with Charley: In Search of America</i> by John Steinbeck (1962)</li> <li>▪ <i>The Great Fire</i> by Jim Murphy (1995)</li> <li>▪ <i>This Land Was Made for You and Me: The Life and Songs of Woody Guthrie</i> by Elizabeth Partridge (2002)</li> </ul>
9–10	<ul style="list-style-type: none"> <li>▪ <i>The Tragedy of Romeo and Juliet</i> by William Shakespeare (1592)</li> <li>▪ “Ozymandias” by Percy Bysshe Shelley (1817)</li> <li>▪ “The Raven” by Edgar Allan Poe (1845)</li> <li>▪ “The Gift of the Magi” by O. Henry (1906)</li> <li>▪ <i>The Grapes of Wrath</i> by John Steinbeck (1939)</li> <li>▪ <i>Fahrenheit 451</i> by Ray Bradbury (1953)</li> <li>▪ <i>The Killer Angels</i> by Michael Shaara (1975)</li> </ul>	<ul style="list-style-type: none"> <li>▪ “Speech to the Second Virginia Convention” by Patrick Henry (1775)</li> <li>▪ The Declaration of Independence by Thomas Jefferson (1776)</li> <li>▪ “Second Inaugural Address” by Abraham Lincoln (1865)</li> <li>▪ “State of the Union Address” by Franklin Delano Roosevelt (1941)</li> <li>▪ <i>Cod: A Biography of the Fish That Changed the World</i> by Mark Kurlansky (1997)</li> <li>▪ <i>The Race to Save Lord God Bird</i> by Phillip Hoose (2004)</li> </ul>
11–CCR	<ul style="list-style-type: none"> <li>▪ “Ode on a Grecian Urn” by John Keats (1820)</li> <li>▪ <i>Jane Eyre</i> by Charlotte Brontë (1848)</li> <li>▪ “Because I Could Not Stop for Death” by Emily Dickinson (1890)</li> <li>▪ <i>The Great Gatsby</i> by F. Scott Fitzgerald (1925)</li> <li>▪ <i>Their Eyes Were Watching God</i> by Zora Neale Hurston (1937)</li> <li>▪ <i>A Raisin in the Sun</i> by Lorraine Hansberry (1959)</li> <li>▪ <i>The Namesake</i> by Jhumpa Lahiri (2003)</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>The Crisis</i> by Thomas Paine (1776)</li> <li>▪ <i>Walden</i> by Henry David Thoreau (1854)</li> <li>▪ “Society and Solitude” by Ralph Waldo Emerson (1857)</li> <li>▪ “Gettysburg Address” by Abraham Lincoln (1863)</li> <li>▪ “Letter from Birmingham Jail” by Martin Luther King, Jr. (1964)</li> <li>▪ <i>Google Hacks: Tips &amp; Tools for Smarter Searching</i> by Tara Calishain and Rael Dornfest (2004)</li> <li>▪ <i>America’s Constitution: A Biography</i> by Akhil Reed Amar (2005)</li> </ul>

**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, quality, and range.) 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 those topics or themes in depth.

**Standards for Literacy  
in History/Social Studies,  
Science, and Technical Subjects**

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**6-12**

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## College and Career Readiness Anchor Standards for Reading

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade. They relate to their College and Career Readiness (CCR) counterparts by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### 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 how and why individuals, events, or ideas 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 analyze 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, chapter, scene, or stanza) 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. Integrate and evaluate content presented graphically, visually, orally, and multimodally as well as in words within and across print and digital sources.\*
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
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 Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

\*Please see “Research to Build and Present Knowledge” in Writing for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

### Note on range and content of student reading

Reading is critical to building knowledge in history/social studies as well as in science and technical subjects. 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 texts 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 Literacy in History/Social Studies 6–12

[RH]

The standards below begin at grade 6; standards for K–5 reading in history/social studies, science, and technical subjects are integrated into the K–5 Reading standards.

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
<b>Key Ideas and Details</b>		
<ol style="list-style-type: none"> <li>1. Cite specific textual evidence to support analysis of primary and secondary sources.</li> <li>2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.</li> <li>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).</li> </ol>	<ol style="list-style-type: none"> <li>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.</li> <li>2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.</li> <li>3. Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them.</li> </ol>	<ol style="list-style-type: none"> <li>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.</li> <li>2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.</li> <li>3. Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.</li> </ol>
<b>Craft and Structure</b>		
<ol style="list-style-type: none"> <li>4. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.</li> <li>5. Describe how a text presents information (e.g., sequentially, comparatively, causally).</li> <li>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).</li> </ol>	<ol style="list-style-type: none"> <li>4. Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.</li> <li>5. Analyze how a text uses structure to emphasize key points or advance a point of view.</li> <li>6. Compare the point of view of two or more authors by comparing how they treat the same or similar history/social science topics, including which details they include and emphasize in their respective accounts.</li> </ol>	<ol style="list-style-type: none"> <li>4. Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines <i>faction</i> in <i>Federalist</i> No. 10).</li> <li>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.</li> <li>6. Evaluate authors’ differing points of view on the same historical event or issue by assessing the authors’ claims, reasoning, and evidence.</li> </ol>
<b>Integration of Knowledge and Ideas</b>		
<ol style="list-style-type: none"> <li>7. Integrate visual information (e.g., pictures, videos, maps) with other information within or across print or digital texts.</li> <li>8. Distinguish among fact, opinion, and reasoned judgment in a text.</li> <li>9. Analyze the relationship between a primary and secondary source on the same topic.</li> </ol>	<ol style="list-style-type: none"> <li>7. Integrate quantitative or technical information (e.g., charts, research data) with other information within or across print or digital texts.</li> <li>8. Assess the extent to which the evidence in a text supports the author’s claims.</li> <li>9. Compare and contrast treatments of the same topic in several primary and secondary sources.</li> </ol>	<ol style="list-style-type: none"> <li>7. Integrate and evaluate multiple sources of information presented in different formats (e.g., print or digital text, video, multimedia) in order to address a question, resolving conflicting information when possible.</li> <li>8. Evaluate an author’s premises, claims, and evidence by corroborating or challenging them with other sources of information.</li> <li>9. Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.</li> </ol>
<b>Range of Reading and Level of Text Complexity</b>		
<ol style="list-style-type: none"> <li>10. By the end of grade 8, read and comprehend history/social studies texts in the grades 6–8 text complexity band independently and proficiently.</li> </ol>	<ol style="list-style-type: none"> <li>10. By the end of grade 10, read and comprehend history/social studies texts in the grades 9–10 text complexity band independently and proficiently.</li> </ol>	<ol style="list-style-type: none"> <li>10. By the end of grade 12, read and comprehend history/social studies texts in the grades 11–12 text complexity band independently and proficiently.</li> </ol>

Reading Standards for Literacy in Science and Technical Subjects 6–12

[RST]

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
<b>Key Ideas and Details</b>		
<ol style="list-style-type: none"> <li>1. Cite specific textual evidence to support analysis of science and technical texts.</li> <li>2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.</li> <li>3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.</li> </ol>	<ol style="list-style-type: none"> <li>1. Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</li> <li>2. Determine the central ideas or conclusions of a text; trace the text’s explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.</li> <li>3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks attending to special cases or exceptions defined in the text.</li> </ol>	<ol style="list-style-type: none"> <li>1. Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.</li> <li>2. Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.</li> <li>3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.</li> </ol>
<b>Craft and Structure</b>		
<ol style="list-style-type: none"> <li>4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 6–8 texts and topics</i>.</li> <li>5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.</li> <li>6. Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.</li> </ol>	<ol style="list-style-type: none"> <li>4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 9–10 texts and topics</i>.</li> <li>5. Analyze the structure of the relationships among concepts in a text, including relationships among key terms pertaining to important ideas and processes (e.g., <i>force, friction, reaction force, energy</i>).</li> <li>6. Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.</li> </ol>	<ol style="list-style-type: none"> <li>4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 11–12 texts and topics</i>.</li> <li>5. Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</li> <li>6. Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved or uncertain.</li> </ol>
<b>Integration of Knowledge and Ideas</b>		
<ol style="list-style-type: none"> <li>7. Integrate quantitative or technical 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).</li> <li>8. Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.</li> <li>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.</li> </ol>	<ol style="list-style-type: none"> <li>7. Demonstrate understanding of quantitative or technical information by translating information provided by the words in a text into graphical form (e.g., a table or chart) or translating information expressed graphically or mathematically (e.g., in an equation) into words.</li> <li>8. Assess the extent to which the evidence in a text supports a claim or a recommendation for solving a scientific or technical problem.</li> <li>9. Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.</li> </ol>	<ol style="list-style-type: none"> <li>7. Integrate and evaluate multiple sources of information presented in different formats (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem, resolving conflicting information when possible.</li> <li>8. Evaluate the hypotheses, data, and conclusions in a science or technical text, verifying data and corroborating or challenging conclusions when possible by using other sources of information.</li> <li>9. Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.</li> </ol>
<b>Range and Level of Text Complexity</b>		
<ol style="list-style-type: none"> <li>10. By the end of grade 8, read and comprehend</li> </ol>	<ol style="list-style-type: none"> <li>10. By the end of grade 10, read and comprehend</li> </ol>	<ol style="list-style-type: none"> <li>10. By the end of grade 12, read and comprehend</li> </ol>

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science/technical texts in the grades 6–8 text complexity band independently and proficiently.

science/technical texts in the grades 9–10 text complexity band independently and proficiently.

science/technical texts in the grades 11–12 text complexity band independently and proficiently.

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DRAFT

## College and Career Readiness Anchor Standards for Writing

The grades 6–12 standards on the following pages define what students should understand and be able to do by the end of each grade. They relate to their College and Career Readiness (CCR) counterparts by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

### *Text Types and Purposes<sup>1</sup>*

1. Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.

### *Production and Distribution of Writing*

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.<sup>2</sup>
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

### *Research to Build and Present Knowledge*

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

### *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.

<sup>1</sup>These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.

### **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.*

The standards below begin at grade 6; standards for K–5 writing in history/social studies, science, and technical subjects are integrated into the K–5 Writing standards.

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
<i>Text Types and Purposes</i>		
<p>2. Write arguments focused on <i>discipline-specific content</i>.</p> <ul style="list-style-type: none"> <li>a. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.</li> <li>b. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.</li> <li>f. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.</li> <li>g. Establish and maintain a formal style.</li> <li>c. Provide a concluding statement or section that follows from and supports the argument presented.</li> </ul>	<p>1. Write arguments focused on <i>discipline-specific content</i>.</p> <ul style="list-style-type: none"> <li>f. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</li> <li>g. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience’s knowledge level and concerns.</li> <li>h. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</li> <li>i. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</li> <li>j. Provide a concluding statement or section that follows from or supports the argument presented.</li> </ul>	<p>1. Write arguments focused on <i>discipline-specific content</i>.</p> <ul style="list-style-type: none"> <li>f. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.</li> <li>g. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience’s knowledge level, concerns, values, and possible biases.</li> <li>h. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.</li> <li>i. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</li> <li>j. Provide a concluding statement or section that follows from or supports the argument presented.</li> </ul>

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
<i>Text Types and Purposes (continued)</i>		
<p><b>4.</b> Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <ul style="list-style-type: none"> <li>g. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.</li> <li>h. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.</li> <li>i. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.</li> <li>j. Use precise language and domain-specific vocabulary to inform about or explain the topic.</li> <li>k. Establish and maintain a formal style and objective tone.</li> <li>l. Provide a concluding statement or section that follows from and supports the information or explanation presented.</li> </ul>	<p><b>3.</b> Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <ul style="list-style-type: none"> <li>g. Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</li> <li>h. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience’s knowledge of the topic.</li> <li>i. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.</li> <li>j. Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.</li> <li>k. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</li> <li>l. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</li> </ul>	<p><b>3.</b> Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.</p> <ul style="list-style-type: none"> <li>a. Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</li> <li>b. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience’s knowledge of the topic.</li> <li>c. Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</li> <li>d. Use precise language, domain-specific vocabulary 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 discipline and context as well as to the expertise of likely readers.</li> <li>e. Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).</li> </ul>
<p><b>3.</b> 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 incorporate narrative accounts into their analyses of 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.</p>	<p><b>3.</b> 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 incorporate narrative accounts into their analyses of 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.</p>	<p><b>3.</b> 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 incorporate narrative accounts into their analyses of 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.</p>

Grades 6–8 students:	Grades 9–10 students:	Grades 11–12 students:
<b>Production and Distribution of Writing</b>		
<p>4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.</p> <p>6. Use technology, including the Internet, to produce and publish a minimum of five pages of writing as well as to interact and collaborate with others.</p>	<p>4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>5. Develop and 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.</p> <p>6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology’s capacity to link to other information and to display information flexibly and dynamically.</p>	<p>4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p>5. Develop and 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.</p> <p>6. Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.</p>
<b>Research to Build and Present Knowledge</b>		
<p>7. Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.</p> <p>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 while avoiding plagiarism and following a standard format for citation.</p> <p>10. Draw evidence from informational texts to support analysis, reflection, and research.</p>	<p>7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p> <p>8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.</p> <p>9. Draw evidence from informational texts to support analysis, reflection, and research.</p>	<p>7. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p> <p>8. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</p> <p>9. Draw evidence from informational texts to support analysis, reflection, and research.</p>
<b>Range of Writing</b>		
<p>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 discipline-specific tasks, purposes, and audiences.</p>	<p>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 discipline-specific tasks, purposes, and audiences.</p>	<p>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 discipline-specific tasks, purposes, and audiences.</p>

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# Introduction

## Toward greater focus and coherence

*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. [M]athematical process goals should be integrated in these content areas.*

National Research Council, 2009

*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 U.S. 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

*Because the mathematics concepts in [U.S.] 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

*There are many ways to organize curricula. The challenge, now rarely met, is to avoid those that distort mathematics and turn off students.*

Steen, 2007

For over a decade, research studies of mathematics education in high-performing countries have pointed to the conclusion that the mathematics curriculum in the United States must become substantially more focused and coherent in order to improve mathematics achievement in this country. 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.’ These Standards are a substantial answer to that challenge.

It is important to recognize that “fewer standards” are no substitute for *focused* standards. Achieving “fewer standards” would be easy to do by resorting to broad, general statements. Instead, these Standards 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)*

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

In addition, the ‘sequence of topics and performances’ that is outlined in a body of mathematics standards must also respect what is known about how students learn. As Confrey (2007) points out, developing “sequenced obstacles and challenges for students... absent the insights about meaning that derive from careful study of learning, would be unfortunate and unwise.” In recognition of this, the development of these Standards began with research-based learning progressions detailing what is known today about how students’ mathematical knowledge, skill, and understanding develop over time.

## Understanding mathematics

These Standards define what students should understand and be able to do in their study of mathematics. 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 a student who can summon a mnemonic device to expand a product such as  $(a + b)(x + y)$  and a student who can explain where the mnemonic comes from. 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 Standards begin on the next page with eight Standards for Mathematical Practice.

# How to read the grade level standards

Domain

Number and Operations in Base Ten 2.NBT

**Understand place value.**

1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
  - a. 100 can be thought of as a bundle of ten tens — called a “hundred.”
  - b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
2. Count within 1000; skip-count by 5s, 10s, and 100s.
3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons.

**Use place value understanding and properties of operations to add and subtract.**

5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
6. Add up to four two-digit numbers using strategies based on place value and properties of operations.
7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand

Cluster

Standard

**Standards** define what students should understand and be able to do. **Clusters** summarize 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. Standards from different domains may sometimes be closely related.

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

# Mathematics | Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in mathematics education: the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections; and the strands of mathematical proficiency specified in the National Research Council’s report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy).

## 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. Key related processes: Problem solving. Key related proficiencies: Conceptual understanding, strategic competence, productive disposition.

## 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. Key related processes: Problem solving, Representation. Key related proficiencies: Strategic competence, productive disposition.

## 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. Key related processes: Problem solving, Representation. Key related proficiencies: Strategic competence, productive disposition.

#### 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, two-way 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. Key related processes: Representation. Key related proficiencies: Adaptive reasoning.

#### 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 analyze 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. Key related processes: Problem solving. Key related proficiencies: Strategic competence.

#### 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, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, 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. Key related processes: Problem solving, Representation. Key related proficiencies: Procedural fluency.

#### 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  $7 \times 8$  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  $2 \times 7$  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  $y$ . Key related processes: Reasoning and proof. Key related proficiencies: Adaptive reasoning.

#### 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. Key related processes: Problem solving, Reasoning and proof. Key related proficiencies: Adaptive reasoning.

## Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

The Standards for Mathematical Practice describe ways in which developing student-practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curriculum, assessment, and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematics instruction.

The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word “understand” are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices.

In this respect, those content standards which set an expectation of understanding are potential “points of intersection” between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve curriculum, instruction, assessment, professional development, and student achievement in mathematics.

# Mathematics | Kindergarten

In Kindergarten, instructional time should focus on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects; (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; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as  $5 + 2 = 7$  and  $7 - 2 = 5$ . (Kindergarten students should see addition and subtraction equations, and student writing of equations in kindergarten is encouraged, but it is not required.) Students 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 two-dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways (e.g., with different sizes and orientations), as well as three-dimensional shapes such as cubes, cones, cylinders, and spheres. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

## Grade Level Overview

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Counting and Cardinality	<ul style="list-style-type: none"> <li>• Know number names and the count sequence.</li> <li>• Count to tell the number of objects.</li> <li>• Compare numbers.</li> </ul>	<ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> </ol>	Mathematical Practices
Operations and Algebraic Thinking	<ul style="list-style-type: none"> <li>• Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.</li> </ul>	<ol style="list-style-type: none"> <li>4. Model with mathematics.</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> </ol>	
Number and Operations in Base Ten	<ul style="list-style-type: none"> <li>• Work with numbers 11-19 to gain foundations for place value.</li> </ul>	<ol style="list-style-type: none"> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	
Measurement and Data	<ul style="list-style-type: none"> <li>• Describe and compare measurable attributes.</li> <li>• Classify objects and count the number of objects in each category</li> </ul>		
Geometry	<ol style="list-style-type: none"> <li>1. Identify and describe shapes.</li> <li>2. Analyze, compare, create, and compose shapes.</li> </ol>		

## Counting and Cardinality K.CC

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### Know number names and the count sequence.

1. Count to 100 by ones and by tens.
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

### Count to tell the number of objects.

4. Understand the relationship between numbers and quantities; connect counting to cardinality.
  - a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
  - b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
  - c. Understand that each successive number name refers to a quantity that is one larger.
5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle; or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.

### Compare numbers.

6. 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.<sup>1</sup>
7. Compare two numbers between 1 and 10 presented as written numerals.

## Operations and Algebraic Thinking K.OA

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### Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

1. Represent addition and subtraction with objects, fingers, mental images, drawings,<sup>2</sup> sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g.,  $5 = 2 + 3$  and  $5 = 4 + 1$ ).
4. 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.
5. Fluently add and subtract within 5.

## Number and Operations in Base Ten K.NBT

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### Work with numbers 11-19 to gain foundations for place value.

1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as  $18 = 10 + 8$ ); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

## Measurement and Data K.MD

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### Describe and compare measurable attributes.

1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller / shorter.*

### Classify objects and count the number of objects in each category.

3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.<sup>3</sup>

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<sup>1</sup> Include groups with up to ten objects.

<sup>2</sup> Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

**Identify and describe shapes (such as squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).**

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. Correctly name shapes regardless of their orientations or overall size.
3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).

**Analyze, compare, create, and compose shapes.**

4. Analyze and compare a variety of two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).
5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
6. Compose simple shapes to form larger shapes.

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<sup>2</sup> Limit category counts to be less than or equal to 10.

# Mathematics | Grade 1

In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and 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 add-to, take-from, put-together, take-apart, 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 (e.g., adding two is the same as counting on two). They use properties of addition 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 relationship between addition and subtraction.

(2) Students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10. They compare 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). Through activities that build number sense, they understand the order of the counting numbers and their relative magnitudes.

(3) Students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating (the mental activity of building up the length of an object with equal-sized units) and the transitivity principle for indirect measurement.<sup>4</sup>

(4) Students compose and decompose plane or solid figures (e.g., put two triangles together to make a quadrilateral) and build understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine shapes, 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.

## Grade Level Overview

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### Operations and Algebraic Thinking

- Represent and solve problems involving addition and subtraction.
- Understand and apply properties of operations and the relationship between addition and subtraction.
- Add and subtract within 20.
- Work with addition and subtraction equations.

### Number and Operations in Base Ten

- Extend the counting sequence.
- Understand place value.
- Use place value understanding and properties of operations to add and subtract.

### Measurement and Data

- Measure lengths indirectly and by iterating length units.
- Tell and write time.
- Represent and interpret data.

### Geometry

- Reason with shapes and their attributes.

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Mathematical Practices

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<sup>4</sup> Students should apply the principle of transitivity of measurement to make indirect comparisons, but they need not use this technical term.

**Represent and solve problems involving addition and subtraction.**

1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.<sup>5</sup>
2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

**Understand and apply properties of operations and the relationship between addition and subtraction.**

3. Apply properties of operations as strategies to add and subtract.<sup>6</sup> Examples: If  $8 + 3 = 11$  is known, then  $3 + 8 = 11$  is also known. (*Commutative property of addition.*) To add  $2 + 6 + 4$ , the second two numbers can be added to make a ten, so  $2 + 6 + 4 = 2 + 10 = 12$ . (*Associative property of addition.*)
4. Understand subtraction as an unknown-addend problem. For example, subtract  $10 - 8$  by finding the number that makes 10 when added to 8.

**Add and subtract within 20.**

5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g.,  $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g.,  $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding  $6 + 7$  by creating the known equivalent  $6 + 6 + 1 = 12 + 1 = 13$ ).

**Work with addition and subtraction equations.**

7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false?  $6 = 6$ ,  $7 = 8 - 1$ ,  $5 + 2 = 2 + 5$ ,  $4 + 1 = 5 + 2$ .
8. Determine the unknown number in a whole-number addition or subtraction equation. For example, determine the unknown number that makes the equation true in each of the equations  $8 + ? = 11$ ,  $5 = \square - 3$ ,  $6 + 6 = \square$ .

## Number and Operations in Base Ten 1.NBT

**Extend the counting sequence.**

1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

**Understand place value.**

2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
  - a. 10 can be thought of as a bundle of ten ones — called a “ten.”
  - b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
  - c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols  $>$ ,  $=$ , and  $<$ .

**Use place value understanding and properties of operations to add and subtract.**

4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
6. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

<sup>5</sup> See Glossary, Table 1.<sup>6</sup> Students need not use formal terms for these properties.

**Measure lengths indirectly and by iterating length units.**

1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.
2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*

**Tell and write time.**

3. Tell and write time in hours and half-hours using analog and digital clocks.

**Represent and interpret data.**

4. Organize, represent, and interpret data with up to three 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

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**Reason with shapes and their attributes.**

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; build and draw shapes to possess defining attributes.
2. Compose two-dimensional shapes (such as rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (such as cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.<sup>7</sup>
3. Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

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<sup>7</sup> Students do not need to learn formal names such as “right rectangular prism.”

## Mathematics | Grade 2

In Grade 2, instructional time should focus on four critical areas: (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.

(1) Students extend their understanding of the base-ten system. This includes ideas of counting in fives, tens, and multiples of hundreds, tens, and ones, as well as number relationships involving these units, including comparing. Students understand multi-digit numbers (up to 1000) written in base-ten notation, recognizing that the digits in each place represent amounts of 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 addition and subtraction within 100. They solve problems by applying their understanding of models for addition and subtraction, and they develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations. They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds.

(3) Students recognize the need for standard units of measure (centimeter and inch) and they use rulers and other measurement tools with the understanding that linear measure involves an iteration of units. They recognize that the smaller the unit, the more iterations they need to cover a given length.

(4) 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 area, volume, congruence, similarity, and symmetry in later grades.

### Grade Level Overview

Operations and Algebraic Thinking	<ul style="list-style-type: none"> <li>• Represent and solve problems involving addition and subtraction.</li> <li>• Add and subtract within 20.</li> <li>• Work with equal groups of objects to gain foundations for multiplication.</li> </ul>	<ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics.</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	Mathematical Practices
Number and Operations in Base Ten	<ul style="list-style-type: none"> <li>• Understand place value.</li> <li>• Use place value understanding and properties of operations to add and subtract.</li> </ul>		
Measurement and Data	<ul style="list-style-type: none"> <li>• Measure and estimate lengths in standard units.</li> <li>• Relate addition and subtraction to length.</li> <li>• Work with time and money.</li> <li>• Represent and interpret data.</li> </ul>		
Geometry	<ul style="list-style-type: none"> <li>• Reason with shapes and their attributes.</li> </ul>		

## Operations and Algebraic Thinking 2.OA

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### Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.<sup>8</sup>

### Add and subtract within 20.

2. Fluently add and subtract within 20. By end of Grade 2, know from memory all sums of two one-digit numbers.

### Work with equal groups of objects to gain foundations for multiplication.

3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.
4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

## Number and Operations in Base Ten 2.NBT

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### Understand place value.

1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
  - a. 100 can be thought of as a bundle of ten tens — called a “hundred.”
  - b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
2. Count within 1000; skip-count by 5s, 10s, and 100s.
3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons.

### Use place value understanding and properties of operations to add and subtract.

5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
6. Add up to four two-digit numbers using strategies based on place value and properties of operations.
7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
8. Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
9. Explain why addition and subtraction strategies work, using place value and the properties of operations.<sup>9</sup>

## Measurement and Data 2.MD

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### Measure and estimate lengths in standard units.

1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
2. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
3. Estimate lengths using units of inches, feet, centimeters, and meters.
4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

### Relate addition and subtraction to length.

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<sup>8</sup> See Glossary, Table 1.

<sup>9</sup> Explanations may be supported by drawings or objects.

5. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
6. Represent whole numbers as lengths from 0 on a **number line diagram** with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences on a number line diagram.

**Work with time and money.**

7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately.  
*Example: If you have 2 dimes and 3 pennies, how many cents do you have?*

**Represent and interpret data.**

9. Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a **line 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 up to four categories. Solve simple put-together, take-apart, and compare problems<sup>10</sup> using information presented in a bar graph.

## Geometry 2.G

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**Reason with shapes and their attributes.**

1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.<sup>11</sup> Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

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<sup>10</sup> See Glossary, Table 1.

<sup>11</sup> Sizes are compared directly or visually, not compared by measuring.

## Mathematics | Grade 3

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, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.

(1) Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models; multiplication is finding an unknown product, and division is finding an unknown factor in these situations. For equal-sized group situations, division can require finding the unknown number of groups or the unknown group size. Students use properties of operations to calculate products of whole numbers, using 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 relationship between multiplication and division.

(2) Students develop an understanding of fractions, beginning with unit fractions. Students view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole. Students understand that the size of a fractional part is relative to the size of the whole; for example,  $\frac{1}{2}$  of the paint in a large bucket could be less paint than  $\frac{1}{3}$  of the paint in a smaller bucket; but  $\frac{1}{3}$  of a ribbon is longer than  $\frac{1}{5}$  of the same ribbon because when the ribbon is divided into 3 equal parts, the parts are longer than when the ribbon is divided into 5 equal parts. Students are able to use fractions to represent numbers equal to, less than, and greater than one. They solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators.

(3) Students recognize area as an attribute of two-dimensional regions. They measure the area of a shape by finding the total number of same-size units of area required to cover the shape without gaps or overlaps, a square with sides of unit length being 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 to multiplication, and justify using multiplication to determine the area of a rectangle.

(4) Students describe, analyze, and compare properties of two-dimensional shapes. They compare and classify shapes by their sides and angles, and connect these with definitions of shapes. Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

### Grade Level Overview

Operations and Algebraic Thinking	<ul style="list-style-type: none"> <li>• Represent and solve problems involving multiplication and division.</li> <li>• Understand properties of multiplication and the relationship between multiplication and division.</li> <li>• Multiply and divide within 100.</li> <li>• Solve problems involving the four operations, and identify and explain patterns in arithmetic.</li> </ul>	<ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics.</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	Mathematical Practices
Number and Operations in Base Ten	<ul style="list-style-type: none"> <li>• Use place value understanding and properties of operations to perform multi-digit arithmetic.</li> </ul>		
Number and Operations—Fractions	<ul style="list-style-type: none"> <li>• Develop understanding of fractions as numbers.</li> </ul>		
Measurement and Data	<ul style="list-style-type: none"> <li>• Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.</li> <li>• Represent and interpret data.</li> <li>• Geometric measurement: understand concepts of area and relate area to multiplication and to addition.</li> <li>• Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.</li> </ul>		
Geometry	<ul style="list-style-type: none"> <li>• Reason with shapes and their attributes.</li> </ul>		

**Represent and solve problems involving multiplication and division.**

1. Interpret products of whole numbers, e.g., interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as  $5 \times 7$ .
2. Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as  $56 \div 8$ .
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.<sup>12</sup>
4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations  $8 \times ? = 48$ ,  $5 = \square \div 3$ ,  $6 \times 6 = ?$ .

**Understand properties of multiplication and the relationship between multiplication and division.**

5. Apply properties of operations as strategies to multiply and divide.<sup>13</sup> Examples: If  $6 \times 4 = 24$  is known, then  $4 \times 6 = 24$  is also known. (*Commutative property of multiplication.*)  $3 \times 5 \times 2$  can be found by multiplying  $3 \times 5 = 15$  then multiplying  $15 \times 2 = 30$ , or by multiplying  $5 \times 2 = 10$  then multiplying  $3 \times 10 = 30$ . (*Associative property of multiplication.*) Knowing that  $8 \times 5 = 40$  and  $8 \times 2 = 16$ , one can find  $8 \times 7$  as  $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$ . (*Distributive property.*)
6. Understand division as an unknown-factor problem. For example, divide  $32 \div 8$  by finding the number that makes 32 when multiplied by 8.

**Multiply and divide within 100.**

7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that  $8 \times 5 = 40$ , one knows  $40 \div 5 = 8$ ) or properties of operations. By end of Grade 3, know from memory all products of one-digit numbers.

**Solve problems involving the four operations, and identify and explain patterns in arithmetic.**

8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity; assess the reasonableness of answers using mental computation and estimation strategies including rounding.<sup>14</sup>
9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

## Number and Operations in Base Ten 3.NBT

**Use place value understanding and properties of operations to perform multi-digit arithmetic.<sup>15</sup>**

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g.,  $9 \times 80$ ,  $5 \times 60$ ) using strategies based on place value and properties of operations.

Number and Operations—Fractions<sup>16</sup> 3.NF**Develop understanding of fractions as numbers.**

1. Understand a fraction  $\frac{1}{b}$  as the quantity formed by 1 part when a whole is partitioned into  $b$  equal parts; understand a fraction  $\frac{a}{b}$  as the quantity formed by  $a$  parts of size  $\frac{1}{b}$ .
2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.

<sup>12</sup> See Glossary, Table 2.<sup>13</sup> Students need not use formal terms for these properties.<sup>14</sup> This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order.<sup>15</sup> A range of algorithms may be used.<sup>16</sup> Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, 8.

- a. Represent a fraction  $\frac{1}{b}$  on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into  $b$  equal parts. Recognize that each part has size  $\frac{1}{b}$  and that the endpoint of the part based at 0 locates the number  $\frac{1}{b}$  on the number line.
  - b. Represent a fraction  $\frac{a}{b}$  on a number line diagram by marking off  $a$  lengths  $\frac{1}{b}$  from 0. Recognize that the resulting interval has size  $\frac{a}{b}$  and that its endpoint locates the number  $\frac{a}{b}$  on the number line.
3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
- a. Recognize and generate simple equivalent fractions (e.g.,  $\frac{1}{2} = \frac{2}{4}$ ,  $\frac{4}{6} = \frac{2}{3}$ ); explain why the fractions are equivalent, e.g., by using a visual fraction model.
  - b. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form  $3 = \frac{3}{1}$ ; recognize that  $\frac{6}{1} = 6$ ; locate  $\frac{4}{4}$  and 1 at the same point of a number line diagram.*
  - c. Compare two fractions with the same numerator or the same denominator, by reasoning about their size; recognize that valid comparisons rely on the two fractions referring to the same whole. Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, e.g., by using a visual fraction model.

## Measurement and Data 3.MD

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### Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

1. Tell and write time to the nearest minute and measure time intervals in minutes; solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).<sup>17</sup> Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.<sup>18</sup>

### Represent and interpret data.

3. 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. *For example, draw a bar graph in which each square in the bar graph might represent 1 pet, 5 pets, or 10 pets.*
4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

### Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

5. Recognize area as an attribute of plane figures and understand 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 is said to have an area of  $n$  square units.
6. Measure areas by counting unit squares, using square cm, square m, square in, square ft, and improvised units.
7. Relate area to the operations of multiplication and addition.
  - a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
  - b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems; represent whole-number products as rectangular areas in mathematical reasoning.
  - c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths  $a$  and  $b + c$  is the sum of  $a \times b$  and  $a \times c$ ; use area models to represent the distributive property in mathematical reasoning.
  - d. Recognize area as additive; find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.

### Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

8. Solve real-world and mathematical problems involving perimeters of polygons, such as finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different area or with the same area and different perimeter.

## Geometry 3.G

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<sup>17</sup> Excludes compound units such as  $\text{cm}^3$  and finding the geometric volume of a container.

<sup>18</sup> Excludes multiplicative comparison problems (problems involving notions of “times as much”; see Glossary, Table 2).

**Reason with shapes and their attributes.**

1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals); recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal area, and describe the area of each part is  $\frac{1}{4}$  of the area of the shape.*

## Mathematics | Grade 4

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

(1) Students generalize their understanding of place value to 1,000,000, understanding the relative sizes of numbers in each place. They use understandings of multiplication and division to develop fluency with multiplication and division of whole numbers. They apply their understanding of models for multiplication (equal-sized groups, arrays, area models), 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 or mentally calculate products. They develop fluency with efficient procedures 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 and mentally calculate quotients, and interpret remainders based upon the context.

(2) Students develop understanding of fraction equivalence and operations with fractions. They recognize that two different fractions can be equal (e.g.,  $15/9 = 5/3$ ), and they develop methods for generating and recognizing equivalent fractions. Students extend previous understandings about how fractions are built from unit fractions, composing fractions from unit fractions, decomposing fractions into unit fractions, and using the meaning of fractions and the meaning of multiplication to multiply a fraction by a whole number.

(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.

### Grade Level Overview

Operations and Algebraic Thinking	<ul style="list-style-type: none"> <li>Use the four operations with whole numbers to solve problems.</li> <li>Gain familiarity with factors and multiples.</li> <li>Generate and analyze patterns.</li> </ul>	<ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics.</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	Mathematical Practices
Number and Operations in Base Ten	<ul style="list-style-type: none"> <li>Generalize place value understanding for multi-digit whole numbers.</li> <li>Use place value understanding and properties of operations to perform multi-digit arithmetic.</li> </ul>		
Number and Operations—Fractions	<ul style="list-style-type: none"> <li>Extend understanding of fraction equivalence and ordering.</li> <li>Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</li> <li>Understand decimal notation for fractions, and compare decimal fractions.</li> </ul>		
Measurement and Data	<ul style="list-style-type: none"> <li>Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.</li> <li>Represent and interpret data.</li> <li>Geometric measurement: understand concepts of angle and measure angles.</li> </ul>		
Geometry	<ul style="list-style-type: none"> <li>Draw and identify lines and angles, and classify shapes by properties of their lines and angles.</li> </ul>		

**Use the four operations with whole numbers to solve problems.**

1. Interpret a multiplication equation as a comparison, e.g., interpret  $5 \times 7 = 35$  as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.<sup>19</sup>
3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity; assess the reasonableness of answers using mental computation and estimation strategies including rounding.

**Gain familiarity with factors and multiples.**

4. Find the factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.

**Generate and analyze patterns.**

5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example: Given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*

Number and Operations in Base Ten<sup>20</sup> 4.NBT

**Generalize place value understanding for multi-digit whole numbers.**

1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. *For example, recognize that  $700 \div 70 = 10$  by applying concepts of place value and division.*
2. Read and write multi-digit whole numbers using base-ten numerals, number names, and **expanded form**. Compare two multi-digit numbers based on meanings of the digits, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons.
3. Use place value understanding to round multi-digit whole numbers to any place.

**Use place value understanding and properties of operations to perform multi-digit arithmetic.<sup>21</sup>**

4. Add and subtract multi-digit whole numbers accurately and efficiently using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Number and Operations—Fractions<sup>22</sup> 4.NF

**Extend understanding of fraction equivalence and ordering.**

1. Explain why a fraction  $\frac{a}{b}$  is equivalent to a fraction  $\frac{(n \times a)}{(n \times b)}$  by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size; use this principle to recognize and generate equivalent fractions.
2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as  $\frac{1}{2}$ ; recognize that valid comparisons rely on the two fractions referring to the same whole. Record the results of comparisons with symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, e.g., by using a visual fraction model.

<sup>19</sup> See Glossary, Table 2.

<sup>20</sup> Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.

<sup>21</sup> A range of algorithms may be used.

<sup>22</sup> Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, 100.

**Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.**

3. Understand a fraction  $a/b$  with  $a > 1$  as a sum of fractions  $1/b$ .
  - a. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation (e.g.,  $3/8 = 1/8 + 1/8 + 1/8$  and  $3/8 = 1/8 + 2/8$ ). Justify decompositions, e.g., by using a visual fraction model.
  - b. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
  - c. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
  - a. Understand a fraction  $a/b$  as a multiple of  $1/b$ . For example, use a visual fraction model to represent  $5/4$  as the product  $5 \times (1/4)$ , recording the conclusion by the equation  $5/4 = 5 \times (1/4)$ .
  - b. Understand a multiple of  $a/b$  as a multiple of  $1/b$ , and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express  $3 \times (2/5)$  as  $6 \times (1/5)$ , recognizing this product as  $6/5$ . (In general,  $n \times (a/b) = (n \times a)/b$ .)
  - c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example: *If each person at a party will eat  $3/8$  of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*

**Understand decimal notation for fractions, and compare decimal fractions.**

5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.<sup>23</sup> For example, express  $3/10$  as  $30/100$  and add  $3/10 + 4/100 = 34/100$ .
6. Interpret a two-digit decimal as a fraction and use decimal notation for parts of wholes; round decimals to the nearest whole number by reasoning about their size. For example, rewrite 1.62 as  $1\ 62/100$ ; describe a length as 1.62 meters; locate 1.62 on a number line diagram and round 1.62 to 2.
7. Compare two decimals to hundredths by reasoning about their size; recognize that valid comparisons rely on the two decimals referring to the same whole. Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, e.g., by using a visual model.

**Measurement and Data** 4.MD

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**Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.**

1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.;  $\ell$ , ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of smaller unit. Record measurement equivalents in a two-column table. For example: *Know that 1 ft is 12 times as long as 1 in; express the length of a 4 ft snake as 48 in; generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...*
2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
3. Apply the area and perimeter formulas for rectangles in real-world and mathematical problems. For example, *find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.*

**Represent and interpret data.**

4. Make a line 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 line plots. For example, *from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.*

**Geometric measurement: understand concepts of angle and measure angles.**

5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:

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<sup>23</sup> Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.

- a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through  $\frac{1}{360}$  of a circle is called a “one-degree angle,” and can be used to measure angles.
  - b. An angle that turns through  $n$  one-degree angles is said to have an angle measure of  $n$  degrees.
6. Measure angles in whole-number degrees using a protractor; sketch angles of specified measure.
  7. Recognize angle measure as additive; when an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

## Geometry 4.G

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### **Draw and identify lines and angles, and classify shapes by properties of their lines and angles.**

1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines; identify these in two-dimensional figures.
2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of specified size. Recognize right triangles as a category, and identify right triangles.
3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts; identify line-symmetric figures and draw lines of symmetry.

## Mathematics | Grade 5

In Grade 5, instructional time should focus on four critical areas: (1) developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions); (2) developing fluency with whole number operations; (3) integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths; 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 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 unit fractions by whole numbers and whole numbers by unit fractions.)

(2) Students develop fluency with multi-digit addition, subtraction, and multiplication, and develop understanding of why division procedures work based on the meaning of base-ten numerals and properties of operations.

(3) Students apply their understandings of models for decimals, decimal notation, and properties of operations to add and subtract decimals to hundredths. 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 decimals to hundredths efficiently and accurately.

(4) Students recognize volume as an attribute of three-dimensional space. They understand that volume can be measured 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 real-world and mathematical problems.

### Grade Level Overview

Operations and Algebraic Thinking	<ul style="list-style-type: none"> <li>Write and interpret numerical expressions.</li> <li>Analyze patterns and relationships.</li> </ul>	1. Make sense of problems and persevere in solving them.	Mathematical Practices
Number and Operations in Base Ten	<ul style="list-style-type: none"> <li>Understand the place value system.</li> <li>Perform operations with multi-digit whole numbers and with decimals to hundredths.</li> </ul>	2. Reason abstractly and quantitatively.	
Number and Operations—Fractions	<ul style="list-style-type: none"> <li>Use equivalent fractions as a strategy to add and subtract fractions.</li> <li>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</li> </ul>	3. Construct viable arguments and critique the reasoning of others.	
Measurement and Data	<ul style="list-style-type: none"> <li>Convert like measurement units within a given measurement system.</li> <li>Represent and interpret data.</li> <li>Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.</li> </ul>	4. Model with mathematics.	
Geometry	<ul style="list-style-type: none"> <li>Graph points on the coordinate plane to solve real-world and mathematical problems.</li> <li>Classify two-dimensional figures into categories based on their properties.</li> </ul>	5. Use appropriate tools strategically.	
		6. Attend to precision.	
		7. Look for and make use of structure.	
		8. Look for and express regularity in repeated reasoning.	

## Operations and Algebraic Thinking 5.OA

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### Write and interpret numerical expressions.

1. Interpret grouping symbols in numerical expressions and evaluate expressions with grouping symbols.
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation “add 8 and 7, then multiply by 2” as  $2 \times (8 + 7)$ ; recognize that  $3 \times (18932 + 921)$  is three times as large as  $18932 + 921$ , without having to calculate the indicated sum or product.*

### Analyze patterns and relationships.

3. Generate two numerical patterns using two given rules. Graph pairs of corresponding terms on a coordinate plane, and identify apparent relationships between corresponding terms. *For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.*

## Number and Operations in Base Ten 5.NBT

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### Understand the place value system.

1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and  $1/10$  of what it represents in the place to its left.
2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use positive integer exponents to denote powers of 10.
3. Read, write, and compare decimals to thousandths.
  - a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g.,  $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$ .
  - b. Compare two decimals to thousandths based on meanings of the digits, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons.
4. Use place value understanding to round decimals to any place.

### Perform operations with multi-digit whole numbers and with decimals to hundredths.

5. Fluently add, subtract, and multiply multi-digit whole numbers using the standard algorithm for each operation.
6. Find quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division; express the quotient as a fraction or mixed number. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
7. Add, subtract, multiply, and divide decimals of one or two digits, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

## Number and Operations—Fractions 5.NF

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### Use equivalent fractions as a strategy to add and subtract fractions.

1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example,  $2/3 + 5/4 = 8/12 + 15/12 = 23/12$ . (In general,  $a/b + c/d = (ad + bc)/bd$ .)*
2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result  $2/5 + 1/2 = 3/7$  by observing that  $3/7 < 1/2$ .*

### Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

3. Interpret a fraction as the result of dividing the numerator by the denominator ( $a/b = a \div b$ ); solve word problems involving division of whole numbers leading to fractional answers, e.g., by using visual fraction models or equations to represent the problem. *For example, interpret  $3/4$  as the result of dividing 3 by 4, noting that  $3/4$  multiplied by 4 equals 3 and that when 3 wholes are shared equally among 4 people each person has a share of size  $3/4$ . If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*

4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
  - a. Interpret the product  $(\frac{a}{b}) \times q$  as  $a$  parts of a partition of  $q$  into  $b$  equal parts; equivalently, as the result of a sequence of operations  $a \times q \div b$ . For example, use a visual fraction model to show  $(\frac{2}{3}) \times 4 = \frac{8}{3}$ , and create a story context for this equation; do the same with  $(\frac{2}{3}) \times (\frac{4}{5}) = \frac{8}{15}$ . (In general,  $(\frac{a}{b}) \times (\frac{c}{d}) = \frac{ac}{bd}$ .)
  - b. Find the area of a rectangle with fractional side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths; multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
5. Interpret multiplication as scaling (resizing), including by:
  - a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.
  - b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence  $\frac{a}{b} = \frac{(n \times a)}{(n \times b)}$  to the effect of multiplying  $\frac{a}{b}$  by 1.
6. Solve real-world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.<sup>24</sup>
  - a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for  $(\frac{1}{3}) \div 4$  and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that  $(\frac{1}{3}) \div 4 = \frac{1}{12}$  because  $(\frac{1}{12}) \times 4 = \frac{1}{3}$ .
  - b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for  $4 \div (\frac{1}{5})$  and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that  $4 \div (\frac{1}{5}) = 20$  because  $20 \times (\frac{1}{5}) = 4$ .
  - c. Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, How much chocolate will each person get if 3 people share  $\frac{1}{2}$  lb of chocolate equally? How many  $\frac{1}{3}$ -cup servings are in 2 cups of raisins?

## Measurement and Data 5.MD

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### Convert like measurement units within a given measurement system.

1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step real-world problems.

### Represent and interpret data.

2. Make a line plot to display a data set of measurements in fractions of a unit ( $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ). Use operations on fractions for this grade to solve problems involving information presented in line 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.

### Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
  - a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.
  - b. A solid figure which can be packed without gaps or overlaps using  $n$  unit cubes is said to have a volume of  $n$  cubic units.
4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
5. Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume.
  - a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent three-fold whole-number products as volumes, e.g., to represent the associative property of multiplication.

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<sup>24</sup> Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement at this grade.

- b. Apply the formulas  $V = \ell w h$  and  $V = b h$  for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems;
- c. Recognize volume as additive; find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real-world problems.

## Geometry 5.G

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### Graph points on the coordinate plane to solve real-world and mathematical problems.

1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g.,  $x$ -axis and  $x$ -coordinate,  $y$ -axis and  $y$ -coordinate).
2. Represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

### Classify two-dimensional figures into categories based on their properties.

3. Understand that attributes belonging to a category of two-dimensional 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 two-dimensional figures in a hierarchy based on properties.

# Mathematics | Grade 6

In Grade 6, instructional time should focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division 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 of 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 multiplication and division to ratios and rates. Thus students expand the scope of problems for which they can use multiplication and division 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 relationship between multiplication and division to understand and explain why the procedures for dividing fractions make sense. Students are able to use these operations to solve problems.

(3) Students reason about relationships among shapes to determine area, surface area, and volume. 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. They reason about right rectangular prisms with rational sides to extend the formula for its volume to rational side lengths. They prepare for work on scale drawings and constructions in Grade 8 by drawing polygons in the coordinate plane.

(4) Students understand the use of variables in mathematical expressions. They write expressions and equations that correspond to given situations, evaluate expressions, and use expressions and formulas to solve problems. Students understand that expressions in different forms can be equivalent, and they use the properties of operations to rewrite expressions in equivalent forms. 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 between quantities.

Students in Grade 6 develop their ability to think statistically. Students recognize that a typical data distribution does not have a definite center, and so different ways to measure center yield different values. The median measures center in the sense that it is roughly the middle value. The mean measures 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 also in the sense that it is a balance point. Students learn to describe and summarize distributions of data, identifying clusters, peaks, gaps, and symmetry, considering the context in which the data was collected.

## Grade Level Overview

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Ratios and Proportional Relationships	<ul style="list-style-type: none"><li>Understand ratio concepts and use ratio reasoning to solve problems.</li></ul>	1. Make sense of problems and persevere in solving them.	Mathematical Practices
The Number System	<ul style="list-style-type: none"><li>Apply and extend previous understandings of multiplication and division to divide fractions by fractions.</li><li>Apply and extend previous understandings of numbers to the system of rational numbers.</li></ul>	2. Reason abstractly and quantitatively.	
Expressions and Equations	<ul style="list-style-type: none"><li>Apply and extend previous understandings of arithmetic to algebraic expressions.</li><li>Reason about and solve one-variable equations and inequalities.</li><li>Represent and analyze quantitative relationships between dependent and independent variables.</li></ul>	3. Construct viable arguments and critique the reasoning of others.	
Geometry	<ul style="list-style-type: none"><li>Solve real-world and mathematical problems involving area, surface area, and volume.</li></ul>	4. Model with mathematics.	
Statistics and Probability	<ul style="list-style-type: none"><li>Develop understanding of statistical variability.</li><li>Summarize and describe distributions.</li></ul>	5. Use appropriate tools strategically.	
		6. Attend to precision.	
		7. Look for and make use of structure.	
		8. Look for and express regularity in repeated reasoning.	

**Understand ratio concepts and use ratio reasoning to solve problems.**

1. Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, “The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”*
2. Understand the concept of a unit rate  $a/b$  associated with a ratio  $a:b$  with  $b \neq 0$ , and use rate language in the context of a ratio relationship. *For example, “This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is  $3/4$  cup of flour for each cup of sugar.” “We paid \$75 for 15 paperbacks, which is a rate of \$5 per paperback.”<sup>1</sup>*
3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
  - a. 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. Use tables to compare ratios.
  - b. Solve unit rate problems including unit pricing and constant speed. *For example, If it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*
  - c. Find a percentage of a quantity as a rate per 100 (e.g., 30% of a quantity means  $30/100$  times the quantity); solve problems involving finding the whole given a part and the percentage.
  - d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

**The Number System 6.NS****Apply and extend previous understandings of multiplication and division to divide fractions by fractions.**

1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for  $(2/3) \div (3/4)$  and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that  $(2/3) \div (3/4) = 8/9$  because  $3/4$  of  $8/9$  is  $2/3$ . (In general,  $(a/b) \div (c/d) = ad/bc$ .) How much chocolate will each person get if 3 people share  $1/2$  lb of chocolate equally? How many  $3/4$ -cup servings are in  $2/3$  of a cup of yogurt? How wide is a rectangular strip of land with length  $3/4$  mi and area  $1/2$  square mi?*
2. Fluently divide multi-digit numbers using the standard algorithm for each operation.

**Apply and extend previous understandings of numbers to the system of rational numbers.**

3. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, debits/credits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
4. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate planes familiar from previous grades to represent negative numbers and their distance from 0.
  - a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g.,  $-(-3) = 3$ , and that 0 is its own opposite.
  - b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
  - c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
5. Understand the ordering of rational numbers.
  - a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret  $-3 > -7$  as a statement that  $-3$  is located to the right of  $-7$  on a number line oriented from left to right.*
  - b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write  $-3^{\circ}\text{C} > -7^{\circ}\text{C}$  to express the fact that  $-3^{\circ}\text{C}$  is warmer than  $-7^{\circ}\text{C}$ .*
6. Understand absolute value and its relationship to the order of rational numbers.

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<sup>1</sup> Expectations for unit rates in this grade are limited to non-complex fractions.

- a. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of  $-30$  dollars, write  $|-30| = 30$  to describe the size of the debt in dollars.*
  - b. Distinguish comparisons of absolute value from statements of order. *For example, recognize that an account balance less than  $-30$  dollars represents a debt greater than 30 dollars.*
7. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane, including using coordinates and absolute value reasoning to find distances between points with the same first coordinate or the same second coordinate.

## Expressions and Equations 6.EE

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### Apply and extend previous understandings of arithmetic to algebraic expressions.

1. Evaluate numerical expressions involving whole-number exponents.
2. Write, read, and evaluate expressions in which letters stand for numbers.
  - a. Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract  $y$  from 5" as  $5 - y$ .*
  - b. Identify parts of an expression using mathematical language (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression  $2(8 + 7)$  as a product of two factors; view  $(8 + 7)$  as both a single entity and a sum of two terms.*
  - c. Evaluate expressions by substituting values for their variables, including when using formulas in real-world problems. Perform arithmetic operations (including those involving whole-number exponents) in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas  $V = s^3$  and  $A = 6s^2$  to find the volume and surface area of a cube with sides of length  $s = 1/2$ .*
3. Apply the properties of operations as strategies to generate equivalent expressions. *For example, apply the distributive property to the expression  $3(2 + x)$  to produce the equivalent expression  $6 + 3x$ ; apply properties of operations to  $y + y + y$  to produce the equivalent expression  $3y$ .*
4. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions  $y + y + y$  and  $3y$  are equivalent because they name the same number regardless of which number  $y$  stands for.*

### Reason about and solve one-variable equations and inequalities.

5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
6. Use variables to stand for numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can be used in cases where a number is unknown, or where, for the purpose at hand, it can be any number in a specified set.
7. Solve real-world and mathematical problems by writing and solving equations of the form  $x + p = q$  and  $px = q$  for cases in which  $p$ ,  $q$  and  $x$  are all nonnegative rational numbers.
8. Write a statement of inequality of the form  $x > c$  or  $x < c$  to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form  $x > c$  or  $x < c$  have infinitely many solutions; represent solutions of such inequalities graphically on a number line diagram.

### Represent and analyze quantitative relationships between dependent and independent variables.

9. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation  $d = 65t$  to represent the relationship between distance and time.*

## Geometry 6.G

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### Solve real-world and mathematical problems involving area, surface area, and volume.

1. Find area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
2. Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the

prism. Apply the formulas  $V = \ell w h$  and  $V = b h$  to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

3. Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
4. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

## Statistics and Probability 6.SP

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### Develop understanding of statistical variability.

1. Recognize a statistical question as 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 collected to answer a statistical question has a distribution which can be described by its overall shape, center and spread.
3. Recognize that a measure of center for a numerical data set summarizes all of its values using a single number, while a measure of variation describes how its values vary using a single number.

### Summarize and describe distributions.

4. Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
5. Summarize numerical data sets in relation to their context, such as by:
  - a. Reporting the number of observations.
  - b. Describing the nature of the attribute of investigation, including how it was measured and its units of measurement.
  - c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data was gathered.
  - d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered.

## 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) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; 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 scale drawings by relating 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 properties of operations, 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 continue their work with area from Grade 6, solving problems involving the area and circumference of a circle and surface area of three-dimensional objects. In preparation for work on congruence and similarity in Grade 8 they reason about relationships among two-dimensional figures using scale drawings and informal geometric constructions, and they gain familiarity with the relationships between angles formed by intersecting lines. Students work with three-dimensional figures, relating them to two-dimensional figures by taking slices. They solve real-world and mathematical problems involving area, surface area, and volume of two- and three-dimensional objects made up from triangles, quadrilaterals, polygons, cubes and right prisms.

(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.

### Grade Level Overview

Ratios and Proportional Relationships	<ul style="list-style-type: none"> <li>Analyze proportional relationships and use them to solve real-world and mathematical problems.</li> </ul>	1. Make sense of problems and persevere in solving them.	Mathematical Practices
The Number System	<ul style="list-style-type: none"> <li>Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.</li> </ul>	2. Reason abstractly and quantitatively.	
Expressions and Equations	<ul style="list-style-type: none"> <li>Use properties of operations to generate equivalent expressions.</li> <li>Solve real-life and mathematical problems using numerical and algebraic expressions and equations.</li> </ul>	3. Construct viable arguments and critique the reasoning of others.	
Geometry	<ul style="list-style-type: none"> <li>Draw, construct and describe geometrical figures and describe the relationships between them.</li> <li>Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.</li> </ul>	4. Model with mathematics.	
Statistics and Probability	<ul style="list-style-type: none"> <li>Use random sampling to draw inferences about a population</li> <li>Draw informal comparative inferences about two populations.</li> <li>Investigate chance processes and develop, use, and evaluate probability models.</li> </ul>	5. Use appropriate tools strategically.	
		6. Attend to precision.	
		7. Look for and make use of structure.	
		8. Look for and express regularity in repeated reasoning.	

## Ratios and Proportional Relationships 7.RP

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Analyze proportional relationships and use them to solve real-world and mathematical problems.

1. Compute unit rates associated with ratios of nonnegative rational numbers, including ratios of lengths, areas and other quantities measured in like or different units. *For example, If a person walks  $\frac{1}{2}$  mile in each  $\frac{1}{4}$  hour, compute the unit rate as the complex fraction  $\frac{1}{2} \div \frac{1}{4}$  miles per hour, equivalently 2 miles per hour.*
2. Recognize and represent proportional relationships between covarying quantities.
  - a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
  - b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
  - c. Represent proportional relationships by equations. *For example, total cost,  $t$ , is proportional to the number,  $n$ , purchased at a constant price,  $p$ ; this relationship can be expressed as  $t = pn$ .*
  - d. Explain what a point  $(x, y)$  on the graph of a proportional relationship means in terms of the situation, with special attention to the points  $(0, 0)$  and  $(1, r)$  where  $r$  is the unit rate.
3. Use proportional relationships to solve multistep ratio and percent problems. *Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.*

## The Number System 7.NS

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Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
  - a. Describe situations in which opposite quantities combine to make 0. *For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.*
  - b. Understand  $p + q$  as the number located a distance  $|q|$  from  $p$ , in the positive or negative direction depending on whether  $q$  is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
  - c. Understand subtraction of rational numbers as adding the additive inverse,  $p - q = p + (-q)$ . Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
  - d. Apply properties of operations as strategies to add and subtract rational numbers.
2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
  - a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as  $(-1)(-1) = 1$  and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
  - 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  $-(p/q) = (-p)/q = p/(-q)$ . Interpret products of rational numbers by describing real-world contexts.
  - c. Apply properties of operations as strategies to multiply and divide rational numbers.
  - d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.
3. Solve real-world and mathematical problems involving the four operations with rational numbers.<sup>2</sup>

## Expressions and Equations 7.EE

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Use properties of operations to generate equivalent expressions.

1. Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example,  $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$ .*

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<sup>2</sup> Computations with rational numbers extend the rules for manipulating fractions to complex fractions.

- Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
- 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,  $a + 0.05a = 1.05a$  means that “increase by 5%” is the same as “multiply by 1.05.”*

**Solve real-life and mathematical problems using numerical and algebraic expressions and equations.**

- Use numbers expressed in the form of a single digit times a whole-number power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. *For example, estimate the population of the United States as  $3 \times 10^8$  and the population of the world as  $7 \times 10^9$ , and determine that the world population is more than 20 times larger.*
- Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations as strategies for calculating with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. *For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional  $1/10$  of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar  $9\frac{3}{4}$  inches long in the center of a door that is  $27\frac{1}{2}$  inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.*
- Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
  - Solve word problems leading to equations of the form  $px + q = r$  and  $p(x + q) = r$ , where  $p$ ,  $q$ , and  $r$  are specific rational numbers. Solve equations of these forms fluently. Compare the algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. *For example, The perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?*
  - Solve word problems leading to inequalities of the form  $px + q > r$  or  $px + q < r$ , where  $p$ ,  $q$ , and  $r$  are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. *For example, As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.*

## Geometry 7.G

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**Draw, construct, and describe geometrical figures and describe the relationships between them.**

- Solve problems involving scale drawings of geometric figures in the coordinate plane, such as computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
- 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.
- Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

**Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.**

- Know the formulas for the area and circumference of a circle and solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
- 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.
- Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

## Statistics and Probability 7.SP

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**Use random sampling to draw inferences about a population.**

- 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.
- 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.*

**Draw informal comparative inferences about two populations**

3. 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.*
4. Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. *For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.*

**Investigate chance processes and develop, use, and evaluate probability models.**

5. Understand that the probability of a chance event is a number between 0 and 1 expressing the likelihood of that event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around  $\frac{1}{2}$  indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
6. Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. *For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.*
7. Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.
  - a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. *For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.*
  - b. Develop a possibly non-uniform probability model by observing frequencies in data generated from a chance process. *For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?*
8. Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.
  - a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
  - b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., “rolling double sixes”), identify the outcomes for which the event occurs.
  - c. Design and use a simulation to generate frequencies for compound events. *For example, use random digits as a simulation tool to approximate the answer to the question: if 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?*

# 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) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and 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  $m \cdot A$ . 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 use ideas about distance and angles, how they behave under translations, rotations, reflections, and dilations, and ideas about congruence and similarity to describe and analyze two-dimensional figures and to solve problems. Students prove that the angles in a triangle add up to a straight line, and that various configurations of lines give rise to similar triangles because of the angles created when a transversal cuts parallel lines. 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. Students complete their work on volume by solving problems involving cones, cylinders, and spheres.

## Grade Level Overview

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The Number System	<ul style="list-style-type: none"><li>Know that there are numbers that are not rational, and approximate them by rational numbers.</li></ul>	1. Make sense of problems and persevere in solving them.	Mathematical Practices
Expressions and Equations	<ul style="list-style-type: none"><li>Work with radicals and integer exponents.</li><li>Understand the connections between proportional relationships, lines, and linear equations.</li><li>Analyze and solve linear equations and pairs of simultaneous linear equations.</li></ul>	2. Reason abstractly and quantitatively.	
Functions	<ul style="list-style-type: none"><li>Define, evaluate, and compare functions.</li><li>Use functions to model relationships between quantities.</li></ul>	3. Construct viable arguments and critique the reasoning of others.	
Geometry	<ul style="list-style-type: none"><li>Understand congruence and similarity using physical models, transparencies, or geometry software.</li><li>Understand and apply the Pythagorean Theorem.</li><li>Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.</li></ul>	4. Model with mathematics.	
Statistics and Probability	<ul style="list-style-type: none"><li>Investigate patterns of association in bivariate data.</li></ul>	5. Use appropriate tools strategically.	
		6. Attend to precision.	
		7. Look for and make use of structure.	
		8. Look for and express regularity in repeated reasoning.	

## The Number System 8.NS

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**Know that there are numbers that are not rational, and approximate them by rational numbers.**

1. Understand informally that every number has a decimal expansion; the rational numbers are those with decimal expansions that terminate in 0s or eventually repeat. Know that other numbers are called irrational.
2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g.,  $\pi^2$ ). *For example, by truncating the decimal expansion of  $\sqrt{2}$ , show that  $\sqrt{2}$  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

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**Work with radicals and integer exponents.**

1. Use square root and cube root symbols to represent solutions to equations of the form  $x^2 = p$  and  $x^3 = p$ , where  $p$  is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that  $\sqrt{2}$  is irrational.
2. Perform operations with 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.

**Understand the connections between proportional relationships, lines, and linear equations.**

3. Graph proportional relationships, interpreting the unit rate as the slope of the graph. 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.*
4. Use similar triangles to explain why the slope  $m$  is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation  $y = mx$  for a line through the origin and the equation  $y = mx + b$  for a line intercepting the vertical axis at  $b$ .

**Analyze and solve linear equations and pairs of simultaneous linear equations.**

5. Solve linear equations in one variable.
  - a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case 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).
  - b. Solve linear equations with rational number coefficients, including equations that require expanding expressions using the distributive property and collecting like terms.
6. Analyze and solve pairs of simultaneous linear equations.
  - a. 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.
  - b. 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  $3x + 2y$  cannot simultaneously be 5 and 6.*
  - c. Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, 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

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**Define, evaluate, and compare functions.**

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.<sup>3</sup>
2. Compare properties of two functions each represented in a different way (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.*

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<sup>3</sup> Function notation is not required in Grade 8.

3. Interpret the equation  $y = mx + b$  as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. *For example, the function  $A = s^2$  giving the area of a square as a function of its side length is not linear because its graph contains the points  $(1,1)$ ,  $(2,4)$  and  $(3,9)$ , which are not on a straight line.*

**Use functions to model relationships between quantities.**

4. 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.
5. 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**

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**Understand congruence and similarity using physical models, transparencies, or geometry software.**

1. Verify experimentally the properties of rotations, reflections, and translations:
  - 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 that a plane figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
3. Describe the effect of dilations, translations, rotations and reflections on figures using coordinates.
4. Understand that a plane figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar figures, describe a sequence that exhibits the similarity between them.
5. Use informal arguments to establish facts about the angle sum and exterior angle of triangles, and about the angles created when parallel lines are cut by a transversal. *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.*

**Understand and apply the Pythagorean Theorem.**

6. Explain a proof of the Pythagorean Theorem and its converse.
7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
8. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

**Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.**

9. Know the formulas for the volume of cones, cylinders and spheres and solve real-world and mathematical problems.

**Statistics and Probability 8.SP**

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**Investigate patterns of association in bivariate data.**

1. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.
2. Know that straight lines are widely used to model 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.
3. 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, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.*
4. 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?*



# Mathematics Standards for High School

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

The high school standards specify the mathematics that all students should study in order to be college and career ready. Additional mathematics that students should learn in order to take advanced courses such as calculus, advanced statistics, or discrete mathematics is indicated by (+), as in this example:

(+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers).

Standards with a (+) symbol are beyond the college and career readiness threshold, but may appear in courses intended for all students. Any standard without a (+) symbol is intended to be in the common mathematics curriculum for all college and career ready students.

## How are the high school standards organized?

The high school standards are listed in conceptual categories:

- Number and Quantity
- Algebra
- Functions
- Modeling
- Geometry
- Statistics and Probability.

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.

## Modeling standards

Modeling is best interpreted not as a collection of isolated topics but 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—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 8, 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.

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.

With each extension of number, the meanings of addition, subtraction, multiplication, and division are extended. In each new number system—integers, rational numbers, real numbers, and complex numbers—the four operations stay the same in two important ways: They have the commutative, associative, and distributive properties and their new meanings are consistent with their previous meanings. For example, multiplication by a whole number can be interpreted as repeated addition of the multiplicand in extensions of the whole numbers.

Extending the properties of whole-number exponents leads to new and productive notation. For example, properties of whole-number exponents suggest that  $(5^{1/3})^3$  should be  $5^{(1/3) \cdot 3} = 5^1 = 5$  and that  $5^{1/3}$  should be the cube root of 5.

Calculators can provide ways for students to become better acquainted with these new number systems and their notation. They can be used 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, and volume. In high school, students encounter a wider variety of units in modeling, 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 or batting averages. They also encounter novel situations in which they themselves must conceive the attributes of interest. For example, to find a good measure of overall highway safety, they might propose measures such as fatalities per year, fatalities per year per driver, or fatalities per vehicle-mile traveled. 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, which must conceptualize relevant attributes and create or choose suitable measures for them.

## Content Overview

<p>The Real Number System</p> <p>Quantities</p> <p>The Complex Number System</p> <p>Vector and Matrix Quantities</p>	<ul style="list-style-type: none"> <li>• Extend the properties of exponents to rational exponents</li> <li>• Classify numbers as rational or irrational</li> <li>• Reason quantitatively and use units to solve problems</li> <li>• Perform arithmetic operations with complex numbers</li> <li>• Represent complex numbers and their operations on the complex plane</li> <li>• Use complex numbers in polynomial identities and equations</li> <li>• Represent and model with vector quantities</li> <li>• Perform operations on vectors</li> <li>• Perform operations on matrices and use matrices in applications</li> </ul>	<ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics.</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	<p>Mathematical Practices</p>
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### The Real Number System N-RN

#### Extend the properties of exponents to rational exponents

1. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. *For example, we define  $5^{1/3}$  to be the cube root of 5 because we want  $(5^{1/3})^3 = 5^{(1/3)3}$  to hold, so  $(5^{1/3})^3$  must equal 5.*
2. Rewrite expressions involving radicals and rational exponents using the properties of exponents.

#### Use properties of rational and irrational numbers

3. Explain why sums and products of rational numbers are rational, 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.

### Quantities\* N-Q

#### Reason quantitatively and use units to solve problems

1. Compare measurements of two quantities of the same type (e.g., two lengths or two weights) expressed in different units to decide which quantity is larger.
2. Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
3. Define appropriate quantities for the purpose of descriptive modeling.
4. Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

### The Complex Number System N-CN

#### Perform arithmetic operations with complex numbers

1. Know there is a complex number  $i$  such that  $i^2 = -1$ , and every complex number has the form  $a + bi$  with  $a$  and  $b$  real.
2. Use the relation  $i^2 = -1$  and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.
3. (+) Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.

#### Represent complex numbers and their operations on the complex plane

4. (+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers), and explain why the rectangular and polar forms of a given complex number represent the same number.
5. (+) Represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation. *For example,  $(1 - \sqrt{3}i)^3 = 8$  because  $(1 - \sqrt{3}i)$  has modulus 2 and argument  $120^\circ$ .*
6. (+) Calculate the distance between numbers in the complex plane as the modulus of the difference, and the midpoint of a segment as the average of the numbers at its endpoints.

**Use complex numbers in polynomial identities and equations**

7. Solve quadratic equations with real coefficients that have complex solutions.
8. (+) Extend polynomial identities to the complex numbers. *For example, rewrite  $x^2 + 4$  as  $(x + 2i)(x - 2i)$ .*
9. (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.

**(+) Vector and Matrix Quantities** N-VM

**Represent and model with vector quantities.**

1. Understand that vector quantities have both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (e.g.,  $\mathbf{v}$ ,  $|\mathbf{v}|$ ,  $\|\mathbf{v}\|$ ,  $v$ ).
2. Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point.
3. Solve problems involving velocity and other quantities that can be represented by vectors.\*

**Perform operations on vectors.**

4. Add and subtract vectors.
  - a. Add vectors end-to-end, component-wise, and by the parallelogram rule. Understand that the magnitude of a sum of two vectors is typically not the sum of the magnitudes.
  - b. Given two vectors in magnitude and direction form, determine the magnitude and direction of their sum.
  - c. Understand that vector subtraction  $\mathbf{v} - \mathbf{w}$  is defined as  $\mathbf{v} + (-\mathbf{w})$ , where  $-\mathbf{w}$  is the additive inverse of  $\mathbf{w}$ , with the same magnitude as  $\mathbf{w}$  and pointing in the opposite direction. Represent vector subtraction graphically by connecting the tips in the appropriate order, and perform vector subtraction component-wise.
5. Multiply a vector  $\mathbf{v}$  by a scalar.
  - a. Represent scalar multiplication graphically by scaling vectors and possibly reversing their direction; perform scalar multiplication component-wise, e.g., as  $c(v_x, v_y) = (cv_x, cv_y)$ .
  - b. Compute the magnitude of a scalar multiple  $c\mathbf{v}$  using  $\|c\mathbf{v}\| = |c|v$ .
  - c. Understand that when  $|c|v \neq 0$ , the direction of  $c\mathbf{v}$  is either along  $\mathbf{v}$  (for  $c > 0$ ) or against  $\mathbf{v}$  (for  $c < 0$ ).

**Perform operations on matrices and use matrices in applications.\***

6. Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.
7. Multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled.
8. Add, subtract, and multiply matrices of appropriate dimensions.
9. Understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties.
10. 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.
11. Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Understand a matrix as a transformation of vectors.
12. Understand a  $2 \times 2$  matrix as a transformation of the plane, and interpret the absolute value of the determinant in terms of area.

## Mathematics | High School—Algebra

**Expressions.** An expression is a record of a computation with numbers and symbols that represent numbers, arithmetic operations, exponentiation, and, at more advanced levels, the operation of evaluating a function. 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 the properties of operations and exponents, and the conventions of algebraic notation. At times, an expression is the result of applying operations to simpler expressions. For example,  $p + 0.05p$  is the sum of the simpler expressions  $p$  and  $0.05p$ . Viewing an expression as the result of operation on simpler expressions can sometimes clarify its underlying structure.

A spreadsheet or a computer algebra system can be used to experiment with algebraic expressions, perform complicated algebraic manipulations, and understand how algebraic manipulations behave.

**Equations and inequalities.** An equation is a statement of equality between two expressions, often viewed as a question asking for which values of the variables the expressions on either side are in fact equal. These values are the solutions to the equation. An identity is true for all numbers; identities are often developed by rewriting an expression in an equivalent form.

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 plotted 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 deducing from it one or more simpler equations. 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, but have a solution in a larger 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. Asking when two functions have the same value for the same input leads to an equation; graphing the two functions allows for finding approximate solutions of the equation. Converting a verbal description to an equation, inequality, or system of these is an essential skill in modeling.

## Content Overview

<p>Seeing Structure in Expressions</p> <p>Arithmetic with Polynomials and Rational Functions</p> <p>Creating Equations</p> <p>Reasoning with Equations and Inequalities</p>	<ul style="list-style-type: none"> <li>• Interpret the structure of expressions</li> <li>• Write expressions in equivalent forms to solve problems</li> <li>• Perform arithmetic operations on polynomials</li> <li>• Understand the relationship between zeros and factors of polynomials</li> <li>• Use polynomial identities to solve problems</li> <li>• Rewrite and graph rational functions</li> <li>• Create equations that describe numbers or relationships</li> <li>• Understand solving equations as a process of reasoning and explain the reasoning</li> <li>• Solve equations and inequalities in one variable</li> <li>• Solve systems of equations</li> <li>• Represent and solve equations and inequalities graphically</li> </ul>	<ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics.</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	<p>Mathematical Practices</p>
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### Seeing Structure in Expressions A-SSE

#### Interpret the structure of expressions

1. Interpret expressions that represent a quantity in terms of its context.\*
  - a. Interpret parts of an expression, such as terms, factors, and coefficients.
  - b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret  $P(1+r)^n$  as the product of  $P$  and a factor not depending on  $P$ .*
2. Use the structure of an expression to identify ways to rewrite it. *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  $(x^2 - y^2)(x^2 + y^2)$ .*

#### Write expressions in equivalent forms to solve problems

3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.\*
  - a. Factor a quadratic expression to reveal the zeros of the function it defines.
  - b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.
  - c. Use the properties of exponents to transform expressions for exponential functions. *For example 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%.*
4. Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. *For example, calculate mortgage payments.\**

### Arithmetic with Polynomials and Rational Expressions A-APR

#### Perform arithmetic operations on polynomials

1. Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

#### Understand the relationship between zeros and factors of polynomials

- 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  $p(x)$ .
- Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.

#### Use polynomial identities to solve problems

- Prove polynomial identities and use them to describe numerical relationships. *For example, the polynomial identity  $(x^2 + y^2)^2 = (x^2 - y^2)^2 + (2xy)^2$  can be used to generate Pythagorean triples.*
- (+) Understand that the Binomial Theorem gives the expansion of  $(x + y)^n$  in powers of  $x$  and  $y$  for a positive integer  $n$ , where  $x$  and  $y$  are any numbers, with coefficients determined for example by Pascal's Triangle. The Binomial Theorem can be proved by mathematical induction or by a combinatorial argument.

#### Rewrite rational expressions

- Rewrite simple rational expressions in different forms; write  $a(x)/b(x)$  in the form  $q(x) + r(x)/b(x)$ , where  $a(x)$ ,  $b(x)$ ,  $q(x)$ , and  $r(x)$  are polynomials with the degree of  $r(x)$  less than the degree of  $b(x)$ , using inspection, long division, or, for the more complicated examples, a computer algebra system.
- (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.

### Creating Equations\* A-CED

#### Create equations that describe numbers or relationships

- Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*
- Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
- Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.*
- Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law  $V = IR$  to highlight resistance  $R$ .*

### Reasoning with Equations and Inequalities A-REI

#### Understand solving equations as a process of reasoning and explain the reasoning

- Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.
- Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.

#### Solve equations and inequalities in one variable

- Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. Graph the solution set of an inequality on a number line.
- Solve quadratic equations in one variable.
  - Understand that the method of completing the square transforms any quadratic equation in  $x$  into an equation of the form  $(x - p)^2 = q$  that has the same solutions. This leads to the quadratic formula.
  - Solve by inspection (e.g., for  $x^2 = 49$ ), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as  $a \pm bi$  for real numbers  $a$  and  $b$ .

#### Solve systems of equations

- Understand that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.
- Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.
- Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. *For example, find the points of intersection between the line  $y = -3x$  and the circle  $x^2 + y^2 = 3$ .*
- (+) Represent a system of linear equations as a single matrix equation in a vector variable.

9. (+) Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension  $3 \times 3$  or greater).

**Represent and solve equations and inequalities graphically**

10. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a straight line).
11. Explain why the  $x$ -coordinates of the points where the graphs of the equations  $y = f(x)$  and  $y = g(x)$  intersect are the solutions of the equation  $f(x) = g(x)$ ; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where  $f(x)$  and/or  $g(x)$  are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.\*
12. Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

## 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 we continually make theories about dependencies between quantities in nature and society, 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;" by an algebraic expression like  $f(x) = a + bx$ ; or by a recursive rule. The graph of a function is often a useful way of visualizing the relationship of the function models, and manipulating a mathematical expression for a function can throw light on the function's properties.

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 computer algebra system can be used to experiment with properties of these 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 for the same input 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 Overview

Interpreting Functions	<ul style="list-style-type: none"> <li>Understand the concept of a function and use function notation</li> <li>Interpret functions that arise in applications in terms of the context</li> <li>Analyze functions using different representations</li> </ul>		<ol style="list-style-type: none"> <li>Make sense of problems and persevere in solving them.</li> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the reasoning of others.</li> <li>Model with mathematics.</li> <li>Use appropriate tools strategically.</li> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ol>	Mathematical Practices
Building Functions	<ul style="list-style-type: none"> <li>Build a function that models a relationship between two quantities</li> <li>Build new functions from existing functions</li> </ul>			
Linear, Quadratic, and Exponential Models	<ul style="list-style-type: none"> <li>Construct and compare linear and exponential models and solve problems</li> <li>Interpret expressions for functions in terms of the situation they model</li> </ul>			
Trigonometric Functions	<ul style="list-style-type: none"> <li>Extend the domain of trigonometric functions using the unit circle</li> <li>Model periodic phenomena with trigonometric functions</li> <li>Prove and apply trigonometric identities</li> </ul>			

### Interpreting Functions F-IF

#### Understand the concept of a function and use function notation

- 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  $x$ . The graph of  $f$  is the graph of the equation  $y = f(x)$ .
- Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
- Understand that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. *For example, the Fibonacci sequence is defined recursively by  $f(0) = f(1) = 1$ ,  $f(n+1) = f(n) + f(n-1)$  for  $n \geq 1$ .*

#### Interpret functions that arise in applications in terms of the context

- For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.\**
- 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.\**
- 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.\*

#### Analyze functions using different representations

7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.\*
  - a. Graph linear and quadratic functions and show intercepts, maxima, and minima.
  - b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.
  - c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.
  - d. (+) Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.
  - e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.
8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.
  - a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.
  - b. Use the properties of exponents to interpret expressions for exponential functions. *For example, identify percent rate of change in functions such as  $y = (1.02)^t$ ,  $y = (0.97)^t$ ,  $y = (1.01)^{12t}$ ,  $y = (1.2)^{t/10}$ , and classify them as representing exponential growth or decay.*
9. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.*

### Building Functions F-BF

#### Build a function that models a relationship between two quantities

1. Write a function that describes a relationship between two quantities.\*
  - a. Determine an explicit expression, a recursive process, or steps for calculation from a context.
  - b. Combine standard function types using arithmetic operations. *For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.*
  - c. (+) Compose functions. *For example, if  $f(t)$  is the height of a falling body after  $t$  seconds,  $f(t - 12)$  is the height of the same body dropped 12 seconds later.*
2. Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.\*

#### Build new functions from existing functions

3. 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. *Include recognizing even and odd functions from their graphs and algebraic expressions for them.*
4. Find inverse functions.
  - a. Solve an equation of the form  $f(x) = c$  for a simple function  $f$  that has an inverse and write an expression for the inverse. *For example,  $f(x) = 2x^3$  or  $f(x) = (x+1)/(x-1)$  for  $x \neq 1$ .*
  - b. (+) Verify by composition that one function is the inverse of another.
  - c. (+) Read values of an inverse function from a graph or a table, given that the function has an inverse.
  - d. (+) Produce an invertible function from a non-invertible function by restricting the domain.

### Linear, Quadratic, and Exponential Models\* F-LQE

#### Construct and compare linear, quadratic, and exponential models and solve problems

1. Distinguish between situations that can be modeled with linear functions and with exponential functions.
  - a. Understand that linear functions grow by equal differences over equal intervals; exponential functions grow by equal factors over equal intervals.
  - b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.
  - c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.
2. Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).

3. Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.
4. For exponential models, express as a logarithm the solution to  $ab^t = d$  where  $a$ ,  $c$ , and  $d$  are numbers and the base  $b$  is 2, 10, or  $e$ ; evaluate the logarithm using technology.

**Interpret expressions for functions in terms of the situation they model**

5. Interpret the parameters in a linear, quadratic, or exponential function in terms of a context.

**Trigonometric Functions F-TF**

**Extend the domain of trigonometric functions using the unit circle**

1. Understand that the radian measure of an angle is the length of the arc on the unit circle subtended by the angle.
2. Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.
3. (+) Use special triangles to determine geometrically the values of sine, cosine, tangent for  $\pi/3$ ,  $\pi/4$  and  $\pi/6$ , and use the unit circle to express the values of sine, cosine, and tangent for  $\pi-x$ ,  $\pi+x$ , and  $2\pi-x$  in terms of their values for  $x$ , where  $x$  is any real number.
4. (+) Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.

**Model periodic phenomena with trigonometric functions**

5. Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.\*
6. (+) Understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.
7. (+) Use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions using technology, and interpret them in terms of the context.\*

**Prove and apply trigonometric identities**

8. Prove the Pythagorean identity  $\sin^2(\theta) + \cos^2(\theta) = 1$  and use it to calculate trigonometric ratios.
9. (+) Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.

## Mathematics | High School—Modeling

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.

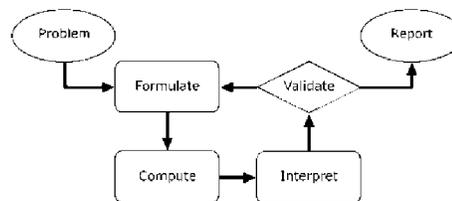
Some examples of such situations might include:

- 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, such as 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 sometimes 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 that 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<sub>2</sub> 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, computer algebra systems, 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—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.

Although there are many types of geometry, school mathematics is devoted primarily to plane Euclidean geometry, studied both synthetically (without coordinates) and analytically (with coordinates). Euclidean geometry is characterized most importantly by the Parallel Postulate, that through a point not on a given line there is exactly one parallel line. (Spherical geometry, in contrast, has no parallel lines.)

During high school, students begin to formalize their geometry experiences from elementary and middle school, using more precise definitions and developing careful proofs. Later in college some students develop Euclidean and other geometries carefully from a small set of axioms.

The concepts of congruence, similarity, and symmetry can be understood from the perspective of geometric transformation. Fundamental are the rigid motions: translations, rotations, reflections, and combinations of these, all of which are here assumed to preserve distance and angles (and therefore shapes generally). 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.

In the approach taken here, two geometric figures are defined to be congruent if there is a sequence of rigid motions that carries one onto the other. This is the principle of superposition. For triangles, congruence means the equality of all corresponding pairs of sides and all corresponding pairs of angles. During Grade 8, through experiences with geometric constructions and drawing triangles from given conditions, some students notice ways to specify enough measures in a triangle to ensure that all triangles drawn with those measures are congruent. Once these triangle congruence criteria (ASA, SAS, and SSS) are established using rigid motions, they can be used to prove theorems about triangles, quadrilaterals, and other geometric figures.

Similarity transformations (rigid motions followed by dilations) define similarity in the same way that rigid motions define congruence, and lead to the criterion for triangle similarity that two pairs of corresponding angles are congruent.

The definitions of sine, cosine, and tangent for acute angles are founded on right triangles and similarity, and, with the Pythagorean Theorem, are fundamental in many real-world and theoretical situations. The Pythagorean Theorem is generalized to non-right triangles by the Law of Cosines. Together, the Laws of Sines and Cosines embody the triangle congruence criteria for the cases where three pieces of information suffice 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.

Analytic geometry connects algebra and geometry, resulting in powerful methods of analysis and problem solving. Just as the number line associates numbers with locations in one dimension, a pair of perpendicular axes associates pairs of numbers with locations in two dimensions. This 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. Geometric transformations of the graphs of equations correspond to algebraic changes in their equations.

Dynamic geometry environments provide students with experimental and modeling tools that allow them to investigate geometric phenomena in much the same way as computer algebra systems allow them to experiment with algebraic phenomena.

*Connections to Equations.* 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 Overview

<p>Congruence</p> <p>Similarity, Right Triangles, and Trigonometry</p> <p>Circles</p> <p>Expressing Geometric Properties with Equations</p> <p>Geometric Measurement and Dimension</p> <p>Modeling with Geometry</p>	<ul style="list-style-type: none"> <li>• Experiment with transformations in the plane</li> <li>• Understand congruence in terms of rigid motions</li> <li>• Prove geometric theorems</li> <li>• Make geometric constructions</li> <li>• Understand similarity in terms of similarity transformations</li> <li>• Prove theorems involving similarity</li> <li>• Define trigonometric ratios and solve problems involving right triangles</li> <li>• Apply trigonometry to general triangles</li> <li>• Understand and apply theorems about circles</li> <li>• Find arc lengths and areas of sectors of circles</li> <li>• Translate between the geometric description and the equation for a conic section</li> <li>• Use coordinates to prove simple geometric theorems algebraically</li> <li>• Explain volume formulas and use them to solve problems</li> <li>• Visualize relationships between two-dimensional and three-dimensional objects</li> <li>• Apply geometric concepts in modeling situations</li> </ul>	<ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics.</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	<p>Mathematical Practices</p>
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### Congruence G-CO

#### Experiment with transformations in the plane

1. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.
2. Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).
3. Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.
4. Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.
5. Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.

#### Understand congruence in terms of rigid motions

- Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.
- Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
- Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

**Prove geometric theorems**

- 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; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.*
- Prove theorems about triangles. *Theorems include: measures of interior angles of a triangle sum to  $180^\circ$ ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.*
- Prove theorems about parallelograms. *Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.*

**Make geometric constructions**

- 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.*
- Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

**Similarity, Right Triangles, and Trigonometry** G-SRT

**Understand similarity in terms of similarity transformations**

- Verify experimentally the properties of dilations:
  - A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.
  - The dilation of a line segment is longer or shorter in the ratio given by the scale factor.
- Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.
- Use the properties of similarity transformations to establish the AA criterion for two triangles to be similar.

**Prove theorems involving similarity**

- Prove theorems about triangles using similarity transformations. *Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.*
- Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

**Define trigonometric ratios and solve problems involving right triangles**

- Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.
- Explain and use the relationship between the sine and cosine of complementary angles.
- Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.\*

**(+) Apply trigonometry to general triangles**

- Derive the formula  $A = \frac{1}{2} ab \sin(C)$  for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.
- Prove the Laws of Sines and Cosines and use them to solve problems.
- Understand and apply 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).

**Circles** G-C

**Understand and apply theorems about circles**

- Prove that all circles are similar.

- Identify and describe relationships among inscribed 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.*
- Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.
- (+) Construct a tangent line from a point outside a given circle to the circle.

**Find arc lengths and areas of sectors of circles**

- Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.

**Expressing Geometric Properties with Equations G-GPE**

**Translate between the geometric description and the equation for a conic section**

- Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.
- Derive the equation of a parabola given a focus and directrix.
- (+) Derive the equations of ellipses and hyperbolas given two foci for the ellipse, and two directrices of a hyperbola.

**Use coordinates to prove simple geometric theorems algebraically**

- 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  $(0, 2)$ .*
- Prove the slope criteria for parallel and perpendicular lines and use them 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).
- Find the point on a directed line segment between two given points that partitions the segment in a given ratio.
- Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.\*

**Geometric Measurement and Dimension G-GMD**

**Explain volume formulas and use them to solve problems**

- Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. *Use dissection arguments, Cavalieri's principle, and informal limit arguments.*
- (+) Give an informal argument using Cavalieri's principle for the formulas for the volume of a sphere and other solid figures.
- Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.\*

**Visualize relationships between two-dimensional and three-dimensional objects**

- Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.

**Modeling with Geometry G-MG**

**Apply geometric concepts in modeling situations**

- Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).\*
- Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).\*
- Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).\*

## 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: a list or description of the possible outcomes (the sample space), each of which is assigned a probability. 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 Addition and Multiplication Rules. 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, regression functions, and correlation coefficients, and to simulate many possible outcomes in a short amount of time.

*Connections to Functions and Modeling.* Functions may be used to describe data; if the data suggest a linear relationship, the relationship can be modeled with a regression line, and its strength and direction can be expressed through a correlation coefficient.

## Content Overview

<p>Interpreting Categorical and Quantitative Data</p> <p>Making Inferences and Justifying Conclusions</p> <p>Conditional Probability and the Rules of Probability</p> <p>Using Probability to Make Decisions</p>	<ul style="list-style-type: none"> <li>• Summarize, represent, and interpret data on a single count or measurement variable</li> <li>• Summarize, represent, and interpret data on two categorical and quantitative variables</li> <li>• Interpret linear models</li> <li>• Understand and evaluate random processes underlying statistical experiments</li> <li>• Make inferences and justify conclusions from sample surveys, experiments and observational studies</li> <li>• Use the concepts of independence and conditional probability to interpret data</li> <li>• Use the rules of probability to compute probabilities of compound events in a uniform probability model</li> <li>• Calculate expected values and use them to solve problems</li> <li>• Use probability to evaluate outcomes of decisions</li> </ul>	<ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics.</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	<p>Mathematical Practices</p>
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### Interpreting Categorical and Quantitative Data S-ID

#### Summarize, represent, and interpret data on a single count or measurement variable

1. Represent data with plots on the real number line (dot plots, histograms, and box plots).
2. Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.
3. Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).
4. 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.

#### Summarize, represent, and interpret data on two categorical and quantitative variables

5. Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.
6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.
  - a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. *Use given functions or choose a function suggested by the context. Emphasize linear and exponential models.*
  - b. Informally assess the fit of a function by plotting and analyzing residuals.
  - c. Fit a linear function for scatter plots that suggest a linear association.

#### Interpret linear models

7. Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.

8. Compute (using technology) and interpret the correlation coefficient of a linear fit.
9. Distinguish between correlation and causation.

## Making Inferences and Justifying Conclusions s-ic

### Understand and evaluate random processes underlying statistical experiments

1. Understand that statistics allows inferences to be made about population parameters based on a random sample from that population.
2. Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. *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?*

### Make inferences and justify conclusions from sample surveys, experiments, and observational studies

3. Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.
4. 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.
5. Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.
6. Evaluate reports based on data.

## Conditional Probability and the Rules of Probability s-cp

### Understand independence and conditional probability and use them to interpret data

1. Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events (“or,” “and,” “not”).
2. Understand that two events A and B are independent if the probability of A and B occurring together is the product of their probabilities, and use this characterization to determine if they are independent.
3. Understand the conditional probability of A given B as  $P(A \text{ and } B)/P(B)$ , and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B.
4. Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. *For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.*
5. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. *For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.*

### Use the rules of probability to compute probabilities of compound events in a uniform probability model

6. Find the conditional probability of A given B as the fraction of B’s outcomes that also belong to A, and interpret the answer in terms of the model.
7. Apply the Addition Rule,  $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$ , and interpret the answer in terms of the model.
8. (+) Apply the general Multiplication Rule in a uniform probability model,  $P(A \text{ and } B) = P(A)P(B|A) = P(B)P(A|B)$ , and interpret the answer in terms of the model.
9. (+) Use permutations and combinations to compute probabilities of compound events and solve problems.

## (+) Using Probability to Make Decisions

S-MD

### Calculate expected values and use them to solve problems

1. Define a random variable for a quantity of interest by assigning a numerical value to each event in a sample space; graph the corresponding probability distribution using the same graphical displays as for data distributions.
2. Calculate the expected value of a random variable; interpret it as the mean of the probability distribution.
3. Develop a probability distribution for a random variable defined for a sample space in which theoretical probabilities can be calculated; find the expected value. *For example, find the theoretical probability distribution for the number of correct answers obtained by guessing on all five questions of a multiple-choice test where each question has four choices, and find the expected grade under various grading schemes.*
4. Develop a probability distribution for a random variable defined for a sample space in which probabilities are assigned empirically; find the expected value. *For example, find a current data distribution on the number of TV sets per household in the*

*United States, and calculate the expected number of sets per household. How many TV sets would you expect to find in 100 randomly selected households?*

**Use probability to evaluate outcomes of decisions**

5. Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values.
  - a. Find the expected payoff for a game of chance. *For example, find the expected winnings from a state lottery ticket or a game at a fast-food restaurant.*
  - b. Evaluate and compare strategies on the basis of expected values. *For example, compare a high-deductible versus a low-deductible automobile insurance policy using various, but reasonable, chances of having a minor or a major accident.*
6. Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).
7. Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).

## Postscript: A Note on High School Courses

The high school standards in this document do not specify how content should be organized into a sequence of high school courses.

However, it is expected that model course sequences based on these standards will become available in both a traditional sequence (Algebra 1, Geometry, and Algebra 2) as well as an integrated sequence (Integrated 1, Integrated 2, Integrated 3).

# Glossary

**Addition and subtraction within 5, 10, 20, 100, or 1000.** Addition or subtraction of two whole numbers with whole number answers, and with sum or minuend in the range 0-5, 0-10, 0-20, or 0-100, respectively. 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:  $\frac{3}{4}$  and  $-\frac{3}{4}$  are additive inverses of one another because  $\frac{3}{4} + (-\frac{3}{4}) = (-\frac{3}{4}) + \frac{3}{4} = 0$ .

**Associative property of addition.** See Table 3 in this Glossary.

**Associative property of multiplication.** See Table 3 in this Glossary.

**Bivariate data.** Pairs of linked numerical observations. Example: a list of heights and weights for each player on a football team.

**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.<sup>1</sup>

**Commutative property.** See Table 3 in this Glossary.

**Complex fraction.** A fraction  $\frac{A}{B}$  where  $A$  and/or  $B$  are fractions ( $B$  nonzero).

**Computation algorithm.** A set of predefined steps applicable to a class of problems that gives the correct result in every case when the steps are carried out correctly. See also: *computation strategy*.

**Computation strategy.** 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. See also: *computation algorithm*.

**Congruent.** Two plane or solid figures are congruent if one can be obtained from the other by rigid motion (a sequence of 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.”

**Dot plot.** See *line plot*.

**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.

**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,  $643 = 600 + 40 + 3$ .

**Expected value.** For a random variable, the weighted average of its possible values, with weights given by their respective probabilities.

**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.<sup>2</sup> See also *median*, *third quartile*, *interquartile range*.

**Fraction.** A number expressible in the form  $\frac{a}{b}$  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*.

**Identity property of 0.** See Table 3 in this Glossary.

**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*.

**Line 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 dot plot.<sup>3</sup>

**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.<sup>4</sup> 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.

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<sup>1</sup> Adapted from Wisconsin Department of Public Instruction, <http://dpi.wi.gov/standards/mathglos.html>, accessed March 2, 2010.

<sup>2</sup> 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).

<sup>3</sup> Adapted from Wisconsin Department of Public Instruction, *op. cit.*

<sup>4</sup> To be more precise, this defines the *arithmetic mean*.

**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.

**Midline.** In the graph of a trigonometric function, the horizontal line half-way between its maximum and minimum values.

**Multiplication and division within 100.** Multiplication or division of two whole numbers with whole number answers, and with product or dividend in the range 0-100. Example:  $72 \div 8 = 9$ .

**Multiplicative inverses.** Two numbers whose product is 1 are multiplicative inverses of one another. Example:  $\frac{3}{4}$  and  $\frac{4}{3}$  are multiplicative inverses of one another because  $\frac{3}{4} \times \frac{4}{3} = \frac{4}{3} \times \frac{3}{4} = 1$ .

**Number line diagram.** A diagram of the number line used to represent numbers and support reasoning about them. In a number line diagram for measurement quantities, the interval from 0 to 1 on the diagram represents the unit of measure for the quantity.

**Percent rate of change.** A rate of change expressed as a percent. Example: if a population grows from 50 to 55 in a year, it grows by  $\frac{5}{50} = 10\%$  per year.

**Probability distribution.** The set of possible values of a random variable with a probability assigned to each.

**Properties of operations.** See Table 3 in this Glossary.

**Properties of equality.** See Table 4 in this Glossary.

**Properties of inequality.** See Table 5 in this Glossary.

**Properties of operations.** 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).

**Probability model.** A probability model is used to assign probabilities to outcomes of a chance process by examining the nature of the process. The set of all outcomes is called the sample space, and their probabilities sum to 1. See also *uniform probability model*.

**Random variable.** An assignment of a numerical value to each outcome in a sample space.

**Rational expression.** A quotient of two polynomials with non-zero denominator.

**Rational number.** A number expressible in the form  $\frac{a}{b}$  or  $-\frac{a}{b}$  for some fraction  $\frac{a}{b}$ . The rational numbers include the integers.

**Rectilinear figure.** A polygon all angles of which are right angles.

**Rigid motion.** A transformation of points in space consisting of a sequence of one or more translations, reflections, and/or rotations. Rigid motions are here assumed to preserve distances and angle measures.

**Repeating decimal.** The decimal form of a rational number. See *terminating decimal*.

**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.<sup>5</sup>

**Similarity transformation.** A rigid motion followed by a dilation.

**Tape diagram.** A drawing that looks like a segment of tape, used to illustrate number relationships. Also known as a strip diagram, bar model, fraction strip, or length model.

**Terminating decimal.** A decimal is called terminating if its repeating digit is 0.

**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*.

**Transitivity principle for indirect measurement.** If the length of object A is greater than the length of object B, and the length of object B is greater than the length of object C, then the length of object A is greater than the length of object C. This principle applies to measurement of other quantities as well.

**Uniform probability model.** A probability model which assigns equal probability to all outcomes. See also *probability model*.

**Vector.** A quantity with magnitude and direction in the plane or in space, defined by an ordered pair or triple of real numbers.

**Visual fraction model.** A tape diagram, number line diagram, or area model.

**Whole numbers.** The numbers 0, 1, 2, 3, ...

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<sup>5</sup> Adapted from Wisconsin Department of Public Instruction, *op. cit.*

TABLE 1. Common addition and subtraction situations.<sup>6</sup>

	Result Unknown	Change Unknown	Start Unknown
<b>Add to</b>	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? $? + 3 = 5$
<b>Take from</b>	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 <sup>7</sup>
<b>Put Together/ Take Apart<sup>8</sup></b>	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
<b>Compare<sup>9</sup></b>	("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? $5 - 3 = ?, ? + 3 = 5$

<sup>6</sup> Adapted from Box 2-4 of National Research Council (2009, op. cit., pp. 32, 33).

<sup>7</sup> 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*.

<sup>8</sup> 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.

<sup>9</sup> 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.<sup>10</sup>

	<b>Unknown Product</b>	<b>Group Size Unknown</b> (“How many in each group?” Division)	<b>Number of Groups Unknown</b> (“How many groups?” Division)
	$3 \times 6 = ?$	$3 \times ? = 18$ and $18 \div 3 = ?$	$? \times 6 = 18$ and $18 \div 6 = ?$
<b>Equal Groups</b>	There are 3 bags with 6 plums in each bag. How many plums are there in all? <i>Measurement example.</i> 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? <i>Measurement example.</i> 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? <i>Measurement example.</i> 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?
<b>Arrays,<sup>11</sup> Area<sup>12</sup></b>	There are 3 rows of apples with 6 apples in each row. How many apples are there? <i>Area example.</i> 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? <i>Area example.</i> 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? <i>Area example.</i> A rectangle has area 18 square centimeters. If one side is 6 cm long, how long is a side next to it?
<b>Compare</b>	A blue hat costs \$6. A red hat costs 3 times as much as the blue hat. How much does the red hat cost? <i>Measurement example.</i> 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? <i>Measurement example.</i> 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? <i>Measurement example.</i> 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?
<b>General</b>	$a \times b = ?$	$a \times ? = p$ and $p \div a = ?$	$? \times b = p$ and $p \div b = ?$

<sup>10</sup> The first examples in each cell are examples of discrete things. These are easier for students and should be given before the measurement examples.

<sup>11</sup> 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.

<sup>12</sup> 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 properties of operations. Here  $a$ ,  $b$  and  $c$  stand for arbitrary numbers in a given number system. The properties of operations apply to the rational number system, the real number system, and the complex number system.

<i>Associative property of addition</i>	$(a + b) + c = a + (b + c)$
<i>Commutative property of addition</i>	$a + b = b + a$
<i>Additive identity property of 0</i>	$a + 0 = 0 + a = a$
<i>Existence of additive inverses</i>	For every $a$ there exists $-a$ so that $a + (-a) = (-a) + a = 0$ .
<i>Associative property of multiplication</i>	$(a \times b) \times c = a \times (b \times c)$
<i>Commutative property of multiplication</i>	$a \times b = b \times a$
<i>Multiplicative identity property of 1</i>	$a \times 1 = 1 \times a = a$
<i>Existence of multiplicative inverses</i>	For every $a \neq 0$ there exists $1/a$ so that $a \times 1/a = 1/a \times a = 1$ .
<i>Distributive property of multiplication over addition</i>	$a \times (b + c) = a \times b + a \times c$

**TABLE 4.** The properties of equality. Here  $a$ ,  $b$  and  $c$  stand for arbitrary numbers in the rational, real, or complex number systems.

<i>Reflexive property of equality</i>	$a = a$
<i>Symmetric property of equality</i>	If $a = b$ , then $b = a$ .
<i>Transitive property of equality</i>	If $a = b$ and $b = c$ , then $a = c$ .
<i>Addition property of equality</i>	If $a = b$ , then $a + c = b + c$ .
<i>Subtraction property of equality</i>	If $a = b$ , then $a - c = b - c$ .
<i>Multiplication property of equality</i>	If $a = b$ , then $a \times c = b \times c$ .
<i>Division property of equality</i>	If $a = b$ and $c \neq 0$ , then $a \div c = b \div c$ .
<i>Substitution property of equality</i>	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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- Office of Special Education Programs, U.S. Department of Education. "IDEA Regulations: Identification of Students with Specific Learning Disabilities," 2006.
- Thompson, S. J., Morse, A.B., Sharpe, M., and Hall, S., "Accommodations Manual: How to Select, Administer and Evaluate Use of Accommodations and Assessment for Students with Disabilities," 2nd Edition. Council of Chief State School Officers, 2005.

SUSAN CASTILLO  
State Superintendent  
of Public Instruction



OREGON DEPARTMENT OF EDUCATION  
Public Service Building, 255 Capitol Street NE, Salem, Oregon 97310  
Phone (503) 947-5600 • Fax (503) 378-5156 •

February 22, 2010

State of New Mexico  
Public Education Department  
ATTN: Darlene Frank  
300 Don Gaspar  
Santa Fe New Mexico 87501-2786

Dear Ms. Frank:

Enclosed are two copies of the executed agreement, reference number 8810, between the Oregon Department of Education, and the State of New Mexico, Public Education Department.

If you have questions regarding the agreement please feel free to contact my office.

Sincerely,

Lillie Gray, CPPB, OPBC  
Contracting Officer – Procurement Services  
Office of Administration and Finance

Phone: 503-947-5647  
Email: [lillie.gray@state.or.us](mailto:lillie.gray@state.or.us)

cc: file

## Summative Multi-State Assessment Resources for Teachers and Educational Researchers (SMARTER) Memorandum of Understanding

This non-binding Memorandum of Understanding (MOU) is entered into by and between the states of Delaware, Hawaii, Idaho, Nebraska, Oregon, Tennessee, Utah, Washington, Wisconsin and Wyoming (referred to as "Lead States") and New Mexico, as a participating state. The purpose of this MOU is to establish a consortium of states (Consortium) to serve as a framework of collaboration as required to submit a proposal for a Multi-State Consortium Common Assessment Race to the Top grant. The working title for the proposal is the "Summative Multi-State Assessment Resources for Teachers and Educational Researchers" (SMARTER). In the event the proposal is approved and fully funded by the U.S. Department of Education, the final proposal will serve as the official agreement.

1. States in the Consortium will assign a key contact to assist in the drafting of the proposal, and to the extent practicable will engage their teachers, school and district administrators and institutions of higher education in the development and review of the proposal to ensure the design of the assessment system meets the needs of a variety of stakeholders.
2. States may withdraw from the Consortium prior to the establishment of the draft budget for the proposal. The anticipated date for the draft budget is 30 days before the proposal is due to the U.S. Department of Education.
3. States in the Consortium agree in principle to the following elements to be included in a proposal to the U.S. Department of Education:
  - a. The purpose of the proposal is to develop a high quality summative assessment system that is aligned to the Common Core Standards, mutually adopted by Consortium states.
  - b. The assessment system will use online adaptive tests, innovative item design and open-ended items to assess the full breadth of cognitive demand described by the Common Core Standards.
  - c. Proposal writing will be governed by staff from the Lead States that have agreed to this MOU. Governance protocols for proposal development will be established by 2/15/2010.
  - d. If funded, the assessment system will be governed by staff from states that are members of the Consortium, and will be guided with the support of selected technical experts. Governance protocols for the assessment system will be a deliverable of the grant.
  - e. The assessment system will include teachers, school and district administrators, state departments of education and institutions of higher education in the design, administration, scoring and reporting of the assessments.
  - f. States in the Consortium will report student, school, district and state results based upon a single common set of rigorous achievement standards. Additionally, states in the consortium may choose to report student achievement benchmarked to a variety of achievement standards including NAEP, international assessments, and benchmarks predictive of student success in college and careers.
  - g. States in the Consortium will use the summative assessment system to measure school and district effectiveness to meet federal accountability requirements
  - h. The assessments will be designed based on principles of Universal Design and will be consistent with professional standards as described by the APA/AERA/NCME *Standards for Educational and Psychological Testing*.
  - i. The Consortium will coordinate with the MOSAIC consortium as appropriate and with other interested multi-state formative and benchmark assessment initiatives so that schools and districts will have access to a variety of high quality instructionally supportive assessment options that together yield a coherent balanced assessment system.
  - j. The assessment system will use open source software applications accessible to any vendor procured by states in the Consortium.



**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 xx, 2010, by and between the **SMARTER Balanced Assessment Consortium** (the “Consortium”) and the **State of New Mexico**, which has elected to participate in the Consortium as (check one)

An **Advisory** State (description in section e),

**OR**

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:

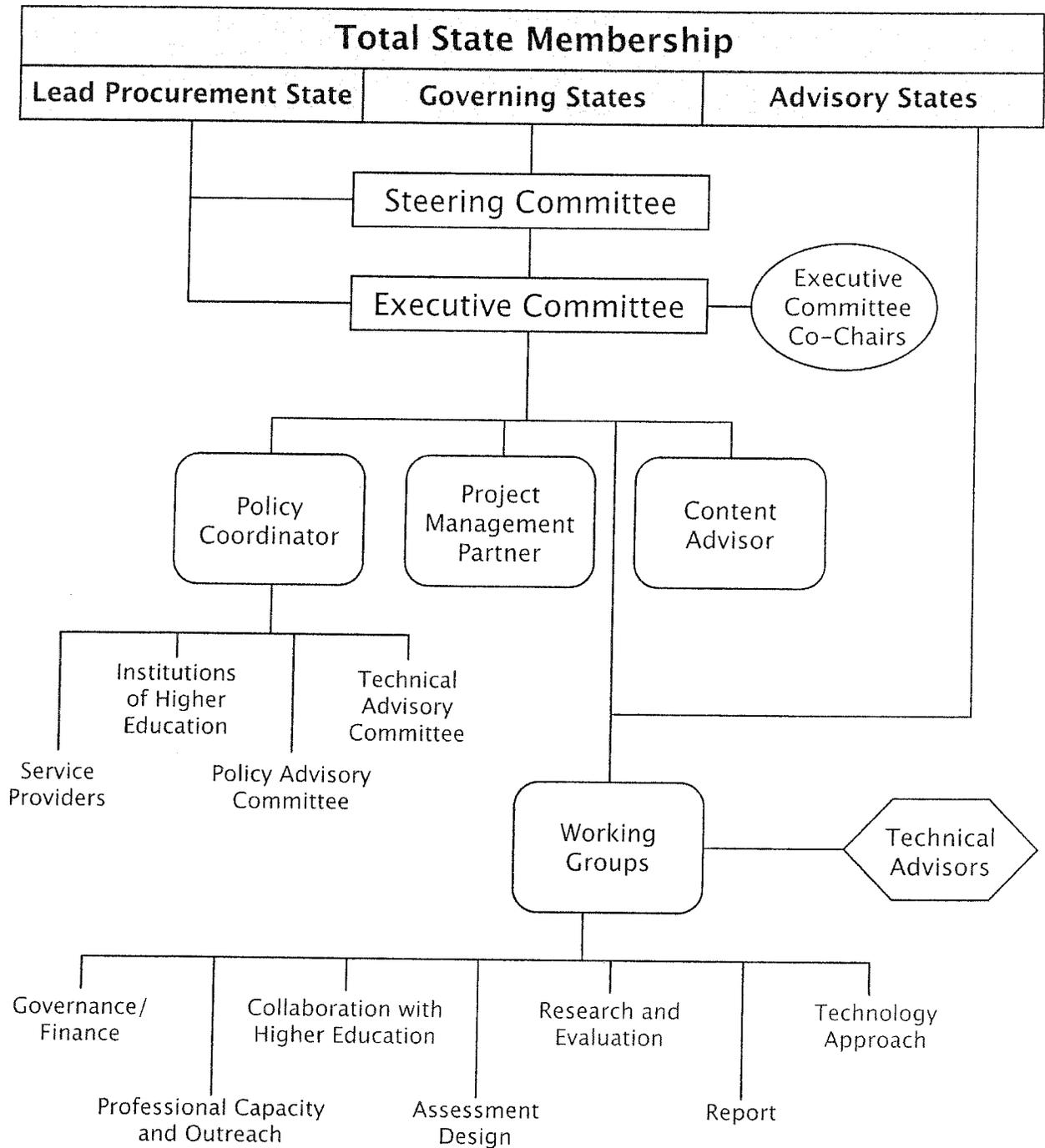
- Governance/Finance,
- Assessment Design,
- Research and Evaluation,
- Report,
- Technology Approach,
- Professional Capacity and Outreach, and
- Collaboration with Higher Education.

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.

Statute does not authorize state to adopt Common Core standards that are aligned with college and career readiness standards in Reading and Mathematics		§22-2C-3, NMSA 1978;	Legislature			
Statute does not authorize state to implement an assessment system that aligns with Common Core standards aligned with college and career readiness standards in Reading and Mathematics		§22-2C-4, NMSA 1978;	Legislature			

[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: New Mexico



Governor or Authorized Representative of the Governor (Printed Name):

Telephone:

Bill Richardson, Governor

Signature of Governor or Authorized Representative of the Governor:

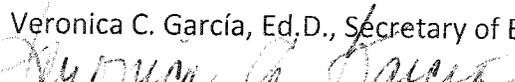
Date:

Chief State School Officer (Printed Name):

Telephone:

Veronica C. García, Ed.D., Secretary of Education

505.827.6688

  
Signature of the Chief State School Officer:

5-20-10  
Date:

President of the State Board of Education, if applicable (Printed Name):

Telephone:

Not Applicable

Signature of the President of the State Board of Education, if applicable:

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: New Mexico

State's chief procurement official (or designee), (Printed Name):

Telephone:

Signature of State's chief procurement official (or designee),:

Date:



**States Participating in the SMARTER Balanced Consortium  
 (as of 5/26/10)**

<b>State</b>	<b>Date</b>	<b>Member/Governing State</b>
Alabama	May 26	Member
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
<b>Total</b>		<b>34 States</b>



STATE OF NEW MEXICO  
PUBLIC EDUCATION DEPARTMENT  
300 DON GASPAR  
SANTA FE, NEW MEXICO 87501-2786  
Telephone (505) 827-5800  
[www.ped.state.nm.us](http://www.ped.state.nm.us)

DR. VERONICA C. GARCÍA  
SECRETARY OF EDUCATION

BILL RICHARDSON  
Governor

## Memorandum of Understanding The State Consortium on Board Examination Systems

The purpose of this Memorandum of Understanding is to reflect the mutual understandings that the state partners and the National Center on Education and the Economy (NCEE) have of the purposes of the State Consortium on Board Examination Systems and the obligations of the member states and NCEE during the initial planning period. The description of the system design presented here is not intended to be legally binding on the states. The signature of the chief state school officer on this document is intended to signify that the chief state school officer intends to make his or her best effort to achieve the goals described below, it being understood that realization of those goals will require the subsequent action of many people, including legislators, the governor, the state board of education, key figures in the higher education community, major stakeholders in the elementary and secondary education community, the business community and so on. Similarly the signature of the president of the National Center on Education and the Economy on this document signifies a pledge by NCEE to do everything it can do to reach the goals described below.

### Purposes

Overall, the aim of the members of the consortium is to install in the member states a system based on international best practice that will greatly raise the proportion of their high school students who leave high school ready to do college-level work. The principle features of that system can be found in the Brief Prospectus for a State Board Examination System, available from NCEE.

Near term, in the Consortium's first year of operation, our goal is to conduct the initial planning and research needed to prepare for implementation of the plan put forward in the Brief Prospectus. Most succinctly, that involves establishment of a system in which the member states will, when the system is in operation:

- require their high schools to offer at least one board examination system (as that term is defined in the Brief Prospectus) at the lower secondary (freshman and sophomore year) level and one at the upper division (junior and senior year) level. These board exam systems would be chosen from a list approved by the state, and these in turn will be chosen from a list approved by the Consortium,

- offer the examinations for these systems every year, and, at the lower secondary level, allow the students to take them as often as they wish; students would be able to take the full set of lower secondary exams as early as the end of their sophomore year,
- tell the students that, as soon as they pass their lower secondary exams, they will be able to go to any open-admissions postsecondary institution in the state without having to take any remedial courses, if they choose to do so,
- tell their high schools that, for students who take the lower secondary exams and fail, they must analyze that student's subscores and prepare a program for that student addressed to that student's weaknesses, so that that student will stand a much better chance of passing on the next attempt, and
- tell students who do pass their lower secondary exams that they can stay in high school and take a board examination program designed to prepare them for entrance into a selective college.

### The initial work of the Consortium

To get to the point at which a significant number of states have such systems in place, the following tasks need to be accomplished in the first year:

- a governing body needs to be established, one in which the states have the major voice, so that the policy decisions that will collectively set the rules for the operation of the system as a whole can be made,
- a Technical Advisory Committee must be established, to make sure that the technical decisions that will have to be taken by the governing body are informed by the best technical advice available anywhere,
- a series of technical studies must be carried out so that the examinations, when administered by the states can withstand intensive scrutiny with respect to issues of fairness and accuracy,
- requirements must be established that will apply to the providers of the board examination curriculum, materials, assessments and teacher training, and the staff must be in a position to communicate those requirements to the providers on behalf of the Consortium members and make sure that they are met,
- the states will need to involve many key policy makers and stakeholders in the discussion as to whether the state will commit to the overall Consortium design and provide the resources needed to properly implement that design and NCEE and its partners must provide the technical assistance and other support that the state leaders will need to make the case and come up with the necessary data, and
- the state in the first implementation cohort will need to take the policy decisions needed to begin the pilot, find the funds needed, recruit pilot districts and schools and organize delivery of necessary services to initiate the pilots.

### During the initial year, the state agrees to:

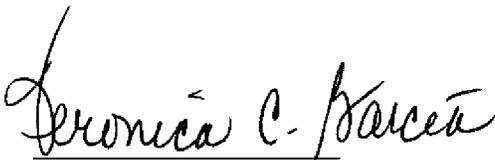
- organize and lead an outreach effort to persuade key policy makers and stakeholders in the state to adopt the Consortium program and commit to implementing that program, if that has not already been done (this includes agreement by the higher education community in the state that it will accept the cut-off score on the board examinations approved by the Consortium governing body as the basis for admission to the open-admissions institutions without remediation),
- participate in the work of the governing body,

- decide whether to be a member of the cohort of states beginning implementation in the 2010-11 school year or the cohort beginning implementation in the 2011-2012 school year, and begin the organizational work needed to implement the program in the chosen cohort year,
- work with NCEE to include language about the Consortium's program in its Race to the Top proposal and other similar proposals as appropriate, as well as requests for funds to support both the state's expenses and NCEE's expenses in connection with this program

During the initial year, NCEE agrees to:

- recruit the states and organize the work of the Consortium
- raise the money required to fund the work of the Consortium, from both federal and foundation sources,
- recruit the Technical Advisory Committee, staff it and carry out those of its recommendations that are approved by the governing body
- create the governing body and act as its staff,
- provide support to the leaders in the member states as they seek to build support for the Consortium program among policymakers, key stakeholders and the public.
- negotiate with the board examination providers to persuade them to modify their offering to reflect the needs of Consortium states and to get the best prices for their products and services for Consortium members.
- provide the Consortium with high quality analysis to support the continued development of the standards, curriculum, assessments and teacher training delivered to the schools. and
- provide the Consortium with high quality analysis of the Consortium's program as it evolves over time and is actually experienced by schools, teachers, students and communities, to provide accurate feedback to the governing body as the basis of a program of continuing improvements to the system.

The participants expect that, during the first year, some states will join the Consortium and others will drop out. As the first cohorts of implementing states start implementation, new issues will arise. The shape of the Consortium program may change as a consequence. Thus this Memorandum of Understanding is intended as a fluid document that will certainly change over time. It is intended therefore not as a constitution but rather as the basis for initial action.



Veronica C. Garcia, Ed. D.  
Secretary of Education

10.9.09



Dr. Veronica C. García  
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## NEWS RELEASE

For Immediate Release: January 14, 2010

# New Mexico Ranked 24<sup>th</sup> in the Nation on Annual Quality Counts 2010 Report

(Santa Fe, NM) -- New Mexico received a ranking of 2<sup>nd</sup> in the nation for education alignment policies and was ranked 24<sup>th</sup> nationally in *Education Week* magazine's annual education report card, "Fresh Course, Swift Current," released today.

Overall, The Quality Counts report gave New Mexico a C with a score of 76.4, out of 100 points. The national average was 75.9, C. Last year, the state received a C+ and was ranked 22<sup>nd</sup> with a score of 76.9. New Mexico received an A and ranked 2<sup>nd</sup> in the country for aligning education from early childhood through college readiness and workforce training. The state also received an A- in Standards, Assessment and Accountability. These categories are two of six distinct areas of policy and performance tracked by *Education Week* to do a comprehensive assessment of the state of American education.

"New Mexico's public education system is holding its own compared to other states, but we can't be satisfied with the middle of the pack overall," said Secretary of Education Veronica C. García. "Student achievement continues to be our focus and we know incremental gains are not enough."

### *Education Week's Quality Counts 2010*

Category	New Mexico	National Ranking	National Average
Transitions & Alignment	A	2	C
Standards, Assessment & Accountability	A-	18	B
Teaching Profession	C	21	C
School Finance	C-	30	C
K-12 Achievement	D-	46	D+
Chance for Success	D+	50	C+

The New Mexico Public Education Department has thrown its hat in the Race for the Top, a national competition for federal dollars that aims to select states with the most ambitious, compelling and comprehensive proposals for educational reform. Winning states will pave the way for states and local school districts across the country to transform the way education happens in our schools.

"I am hopeful that if New Mexico receives this funding it will give a significant boost to improving student achievement," said Secretary García. "The end result will be an innovative and bold educational reform effort that reflects New Mexico's unique qualities and transforms the way students learn. It will invest in teachers and principals through professional development and instill high expectations so that we can close the achievement gap by giving students the tools and information they need to carve their own unique path to success."

The K-12 Achievement category is based largely on the National Assessment of Educational Progress scores from 2009. This national test is administered every two years and is used by a number of groups to evaluate student achievement.

The Chance for Success category includes indicators such as family income, parental employment, and annual income.

“New Mexico must take strong steps to help more adults increase their educational attainment levels,” Secretary García said. “With increased education comes higher-paying jobs and increased chances for success for our children.”

For more information on this report and New Mexico results, go to [www.edweek.org/go/qc10](http://www.edweek.org/go/qc10)

###

**Ready For College 2009:  
An Annual Report On New Mexico High School  
Graduates Who Take Remedial Classes In New Mexico  
Colleges And Universities**

**Dr. Peter Winograd, Director, Office of Education Accountability,  
Department of Finance and Administration**

**Dr. Reed Dasenbrock, Secretary, Higher Education Department**

**Dr. Veronica C. García, Secretary, Public Education Department**

**Santa Fe, New Mexico**

**June 2009**

## Key Contributors To The Ready For College 2009 Study

- William Flores, Higher Education Department
- Rick Scott, Higher Education Department
- Tyler Weldon, Higher Education Department
- Dina Advani, Higher Education Department
- Yash Morimoto, Higher Education Department
- Scott Hughes, Office of Education Accountability
- Beata Thorstensen, Office of Education Accountability
- Richard LaPan, Office of Education Accountability
- Jo Lynn Gallegos, Office of Education Accountability
- Catherine Cross Maple, Public Education Department
- Minerva Carrera, Public Education Department
- Danny Earp, New Mexico Independent Community Colleges
- Allison Borden, University of New Mexico

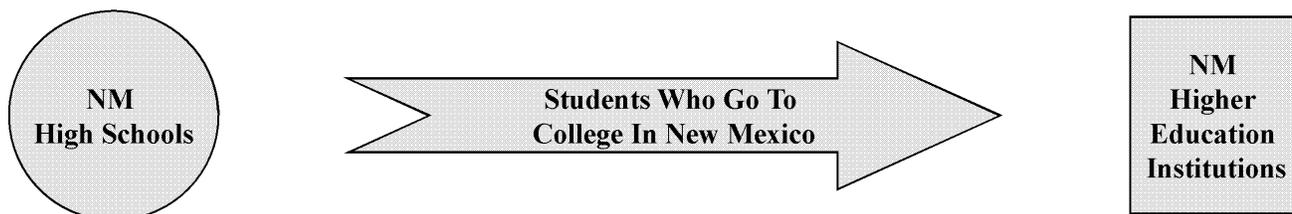
## Ready For College Reports On New Mexico High School Graduates Who Take Remedial Classes In New Mexico Colleges And Universities

- These reports:
  - Are a joint effort by OEA, HED, and PED and have been published in 2006, 2007 and 2008.
  - Provide detailed information about how many New Mexico high school graduates take remedial courses in New Mexico colleges and universities.
  - Offer longitudinal information that can be used by the Governor, the Legislature, educators and citizens in their efforts to improve New Mexico's education system.
  - Strengthen the capacity of the HED, PED and OEA to track students throughout the PreK-20 education system and report on their progress.
  - Support key policy initiatives including high school redesign, alignment of college and university placement tests, and increased communication among high schools, colleges, and universities.
  - Are to be used to explore the data questions and policy questions that need to be answered if New Mexico is to increase the number of students who graduate from high school ready to succeed in college.

## The Limitations Of The “Ready For College” Reports

- These reports:
  - Are **limited** and only include data about those approximately 40% to 48% of high school graduates who attend New Mexico colleges and universities. We do not know about the preparation levels of those New Mexico students who attend college out of state or who choose to go into the military or other careers. Given the fact that high school graduates who come from other states and attend New Mexico’s colleges and universities have a significantly lower rate of remediation than do in-state high school graduates, it is likely that those New Mexico high school graduates who leave the state to attend colleges and universities are better prepared for college.
  - Are **limited** and do not include data about New Mexico’s high school graduates who attend Navajo Technical College, Diné College, Institute of American Indian Arts, or Southwestern Indian Polytechnic Institute.

## New Mexico's Ready For College Reports



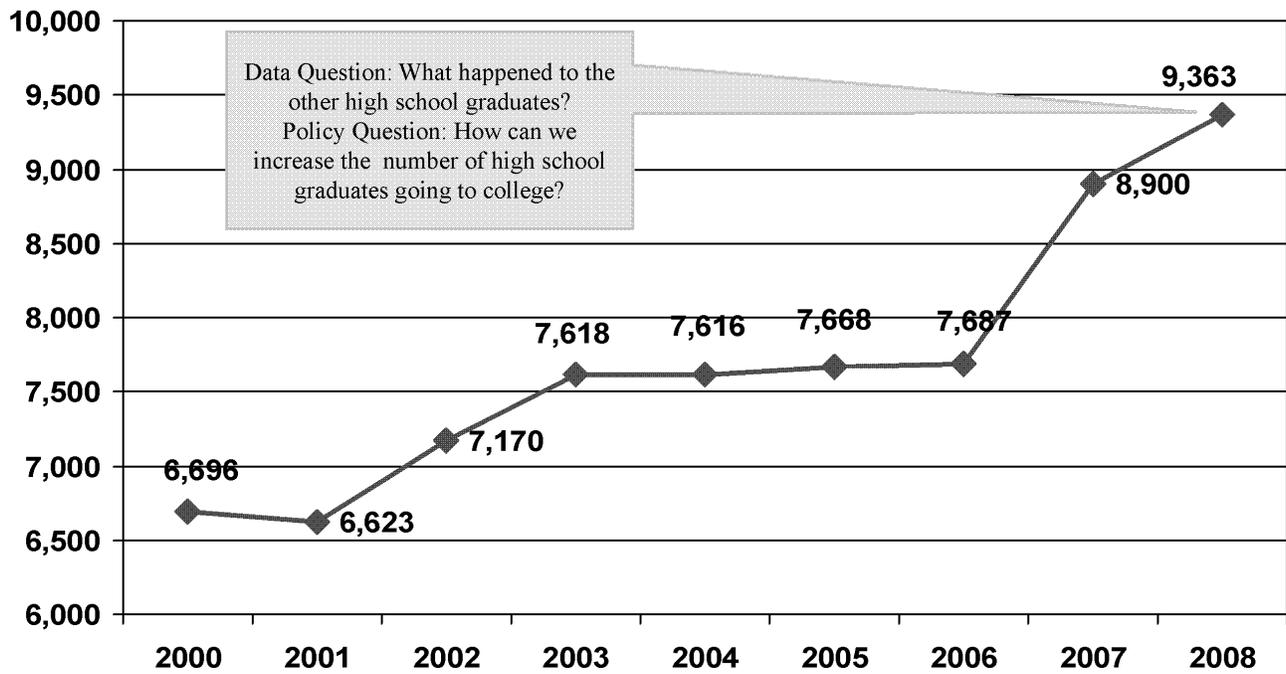
### The Data Questions

- How many high school graduates take remedial courses in college?
- What is the relationship between high school performance and college readiness?
- What kinds of remedial courses do they take?
- What happens to college students who take remedial classes?
- Will the number of high school graduates/college freshman taking remedial courses decline as the Higher Education Department and the Public Education Department strengthen their alignment and as new legislation and policies are implemented?

### The Policy And Political Questions

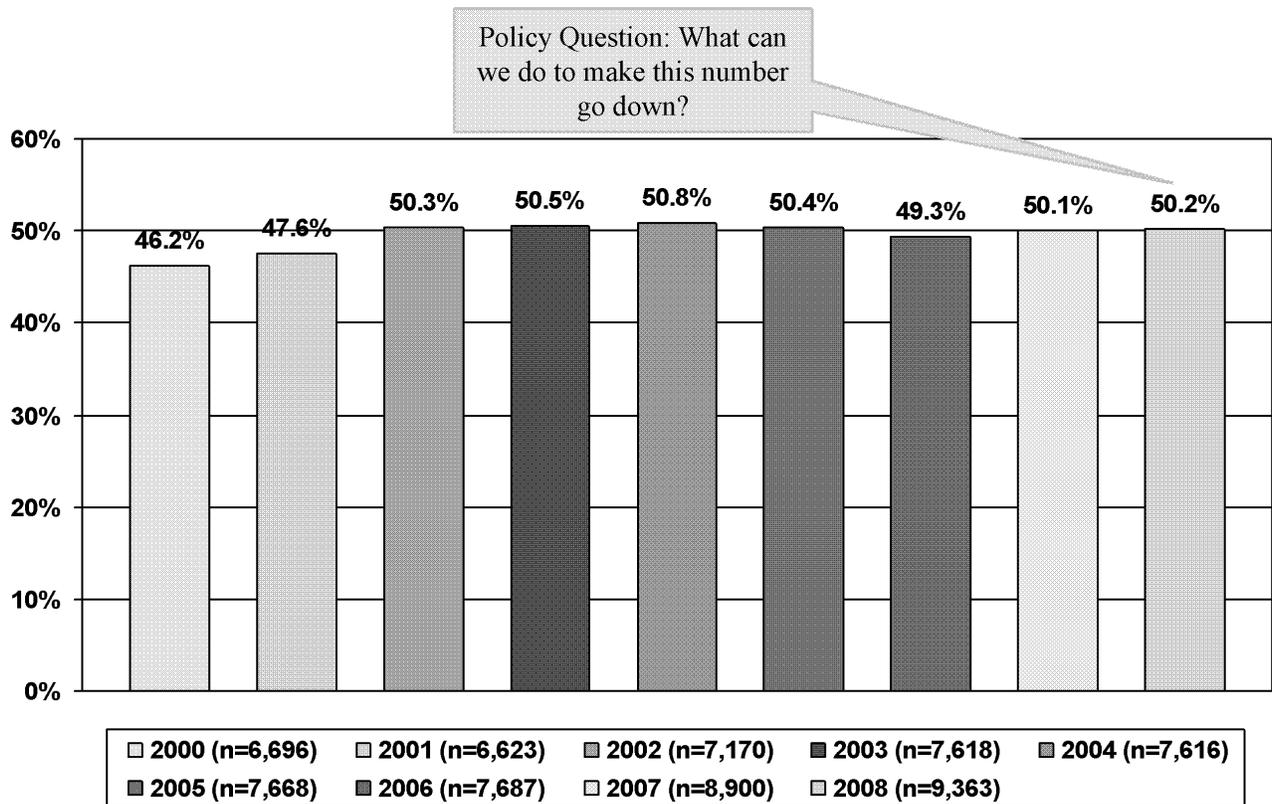
- What can be done at the middle and high school level to improve student readiness for college?
- What can be done at the college level to ensure that more students succeed in higher education?
- How much will these initiatives cost?
- Where will the funding come from?
- Who are the partners that can strengthen the cooperation between high schools and higher education?

## Number Of New Mexico Public High School Graduates Who Attended College In New Mexico Included In The Study: 2000 - 2008



Note: Data does not include charter schools or alternative schools

## Percent of New Mexico Public High School Graduates Who Took Remedial Classes In Math And/Or Reading In New Mexico Colleges: 2000-2008



## Several Of New Mexico's High School Redesign Initiatives Will Be Implemented In School Year 2009-2010

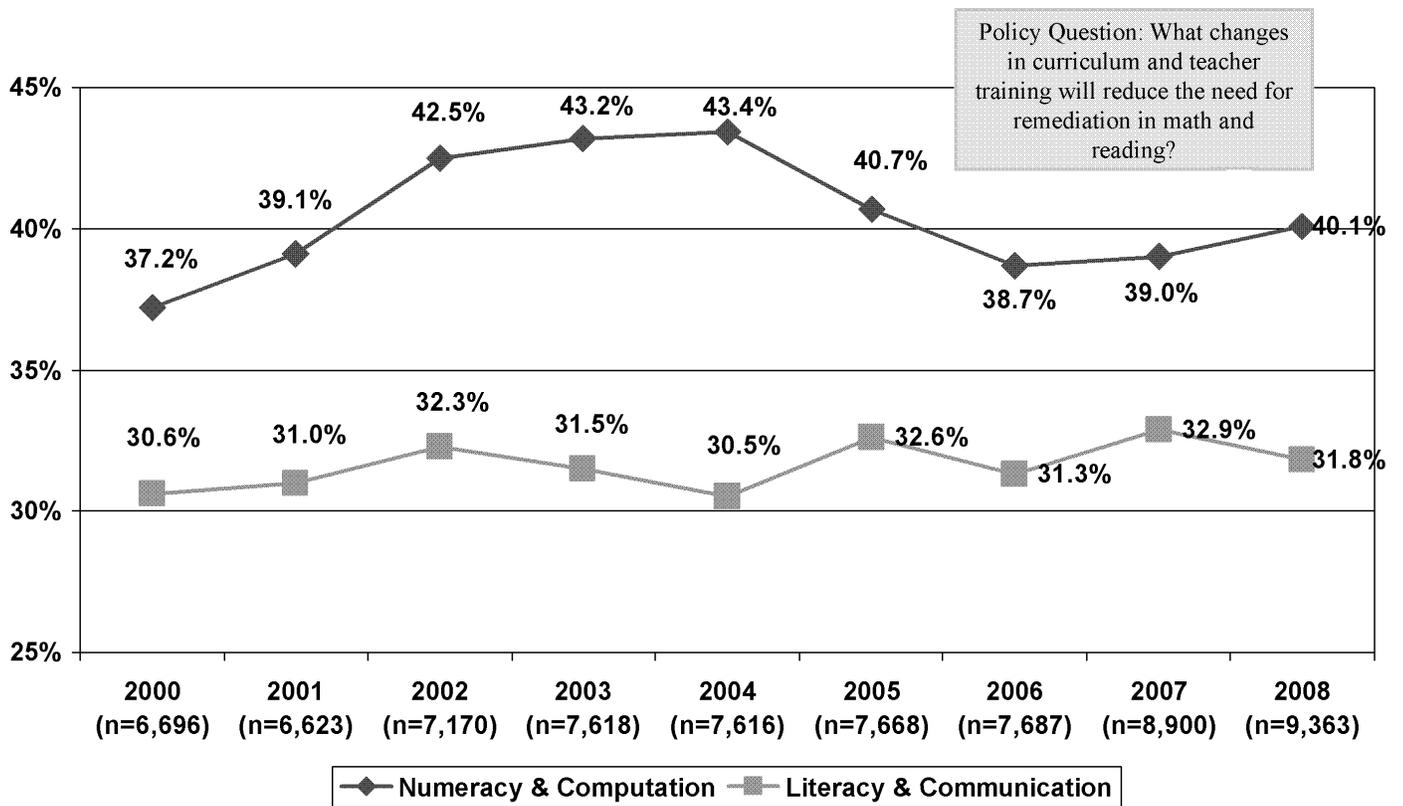
Adding an additional year of mathematics at the Algebra II level for all students entering the 9<sup>th</sup> grade in 2009-2010.

Eliminating the traditional 9<sup>th</sup> grade assessments and high school competency exam and replacing them with a set of exams that assess student readiness for high school, college, and the workplace.

Requiring all high schools to offer distance learning, dual credit courses and advanced placement courses in 2008-2009; and requiring all students entering the 9<sup>th</sup> grade in 2009-2010 to take at least one such course for graduation.

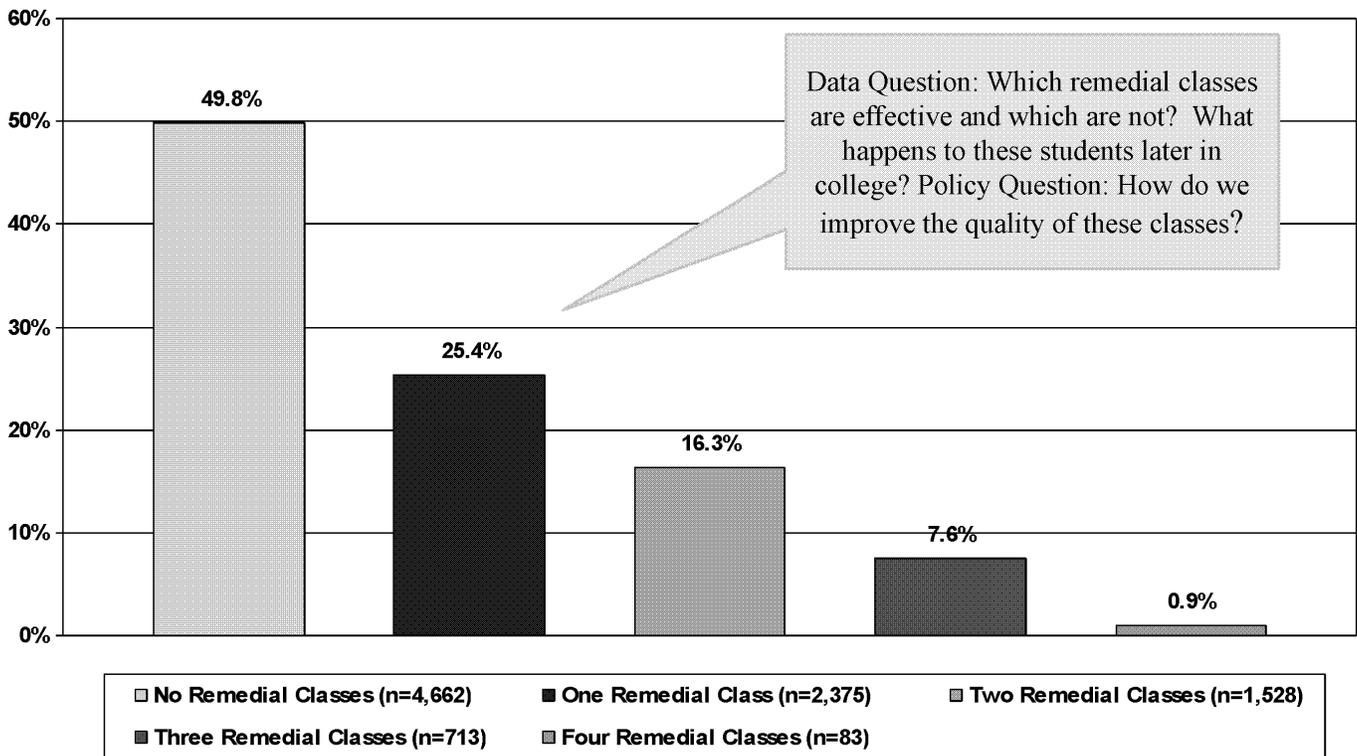
School Year (HS Grad in Spring; College Freshman in Fall)	2007-08 (HS Grad 08 College Freshman in 08)	2008-09	2009-10	2010-11	2011-12	2012-13
Ready For College Report	2009	2010				
% of HS Graduates Taking Remedial Courses	50.2%	Available Summer 2010	HS Freshman	HS Sophomore	HS Junior	HS Senior Graduate / College Freshman
Number of HS Graduates in Study	9,363	Available Summer 2010				

Percentages Of New Mexico Public High School Graduates Who Took Remedial Classes Only In Math Or Only In Reading: 2000-2008

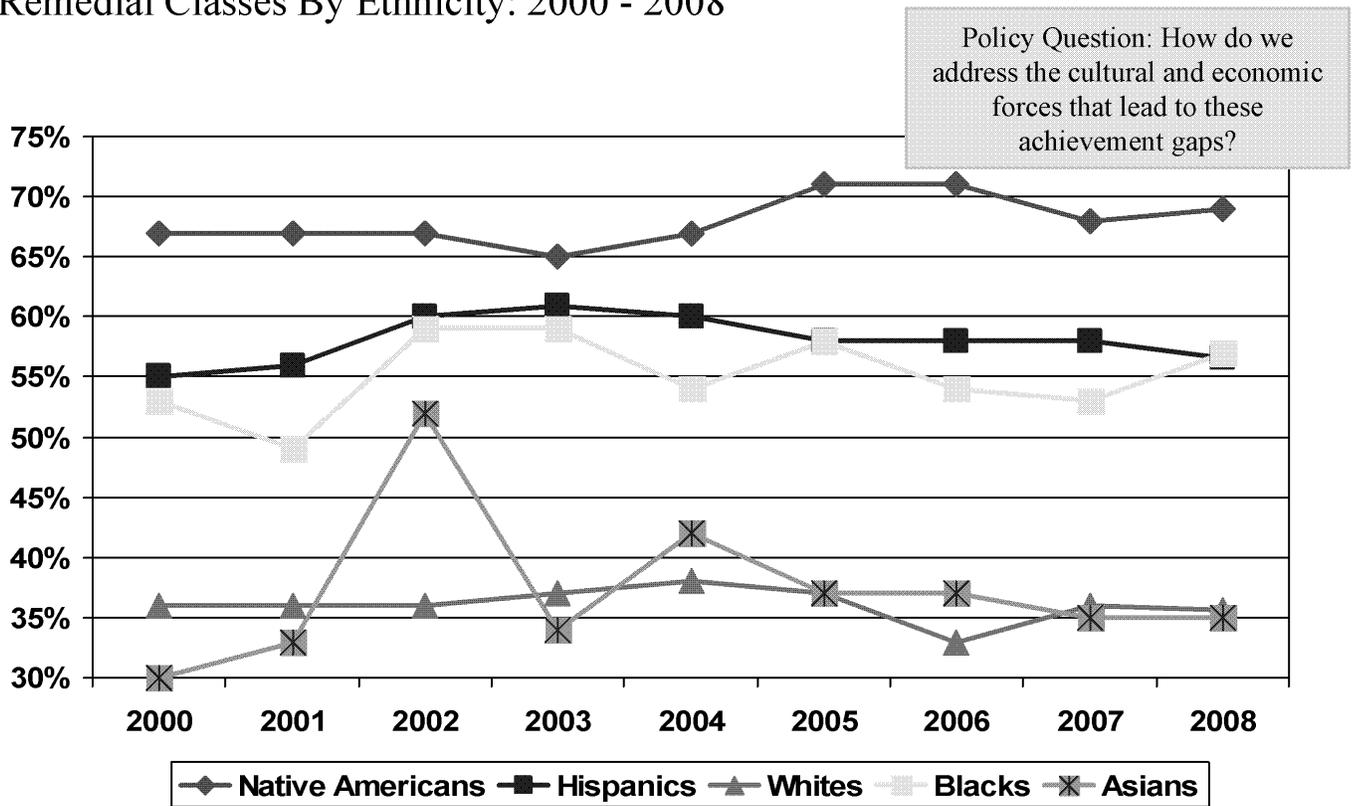


Note: Data does not include charter schools or alternative schools

## Percent of New Mexico Public High School Graduates Who Took Different Numbers Of Remedial Classes In New Mexico Colleges: 2008

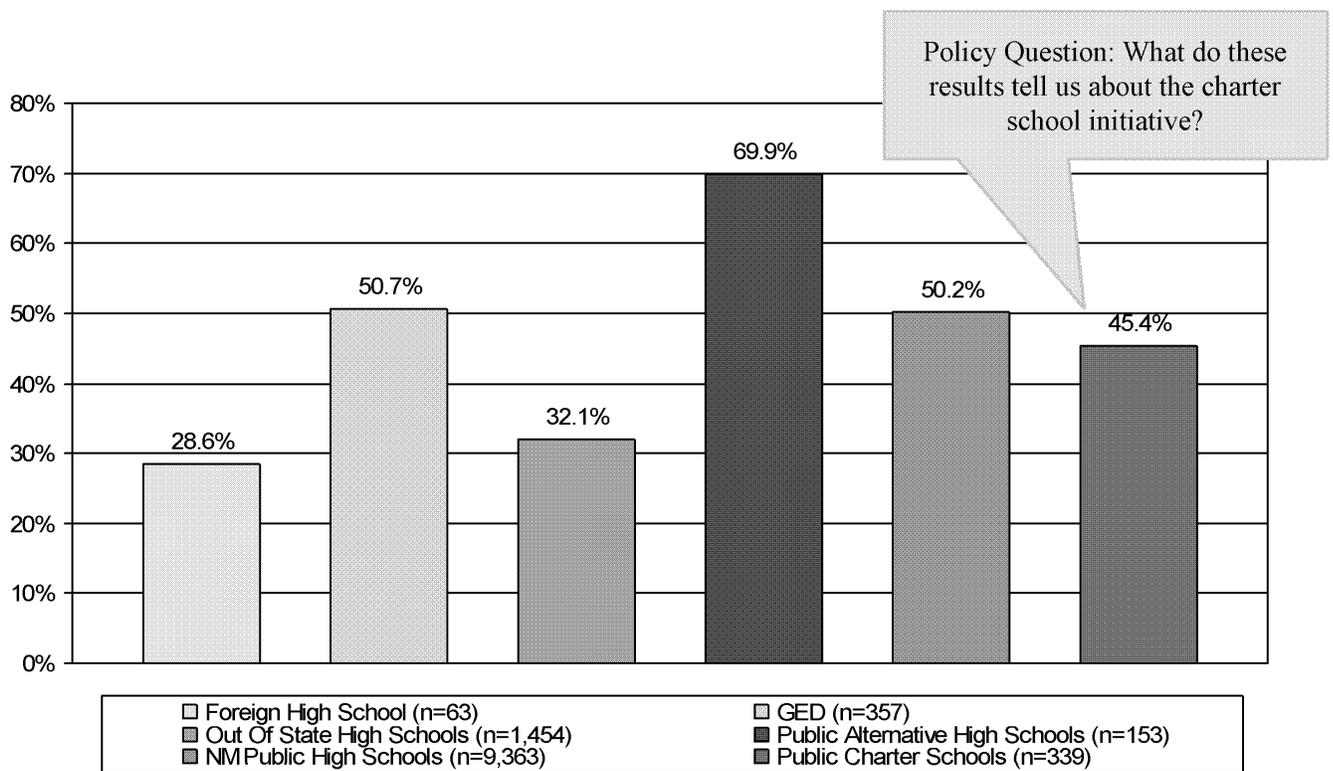


### Percentage Of New Mexico Public High School Graduates Who Took Remedial Classes By Ethnicity: 2000 - 2008



Note: Data does not include charter schools or alternative schools

## Percent of High School Graduates Who Took Remedial Classes In Math And/Or Reading In New Mexico Colleges By Type Of High School: 2008



## Thinking About New Mexico's PreK-20 Education Pipeline

- Senate Bill 152: First Year Of College Outcomes Of New Mexico Public School Graduates
- The Relationship Between Assessments in High School and College
- New Mexico's Progress In Developing An Effective PreK-20 Data System

The Governor and The Legislature Have Given Us An Important  
Tool For Improving Readiness For College

SB 152: First Year Of College Outcomes Of New Mexico Public  
School Graduates – Annual Reports  
Sponsored By Senator Cynthia Nava

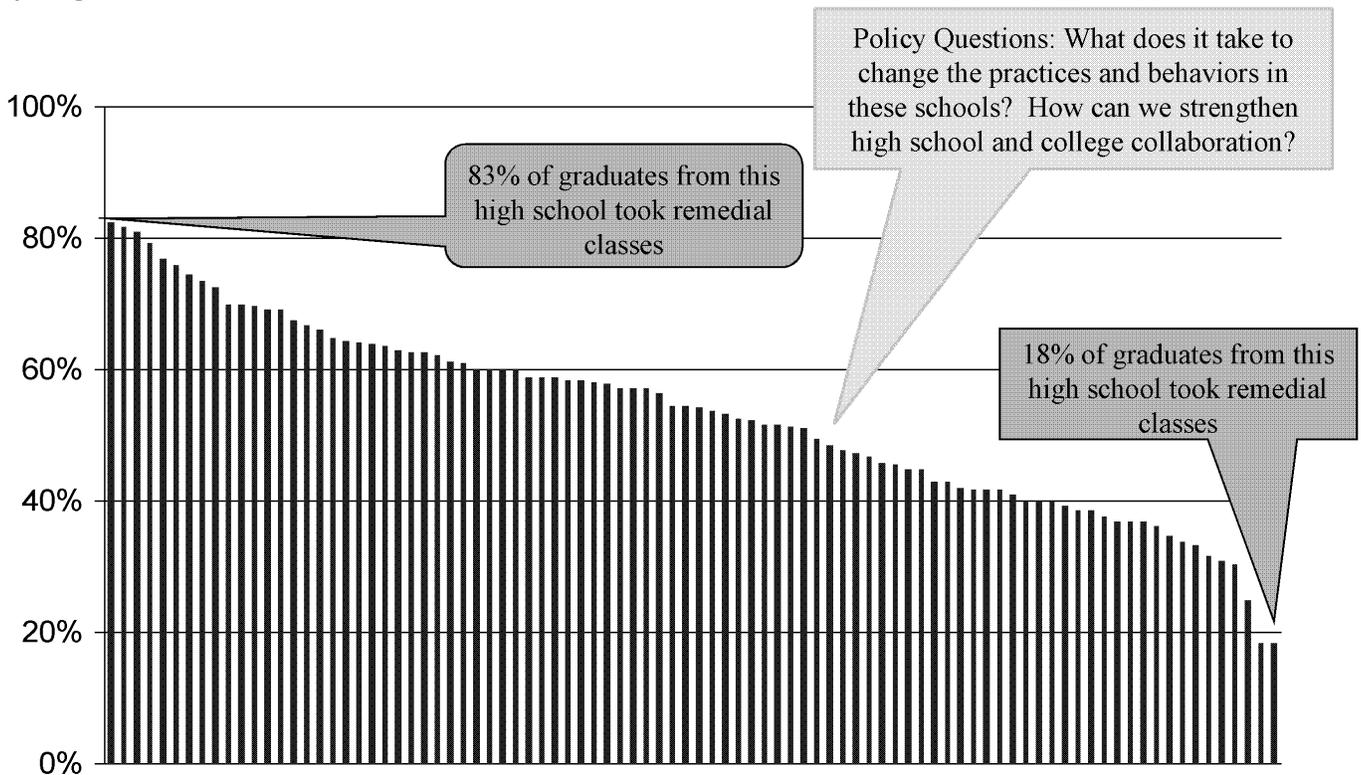
## Senate Bill 152 – First Year Of College Outcomes Of New Mexico Public School Graduates

A. Upon request from a public high school or school district superintendent in New Mexico, a public post-secondary educational institution shall provide a report of students who enroll in the institution within three years of graduating from that high school or leaving that high school without enrolling in another high school or earning a general educational development certificate. Information in the reports may be used by the high schools and public post-secondary educational institutions to improve instruction, student preparation and advisement.

B. The higher education department, in consultation with the public education department and representatives of public high schools and public post-secondary educational institutions, shall prescribe the form of the reports. Reports shall not include any personally identifiable student information. The reports shall be designed to show advanced placement by subject, total credits earned, grade point averages, retention from fall to spring semester of the first year of college and frequency and patterns of remedial or development courses being taken.

C. The higher education department shall be provided with copies of the reports.

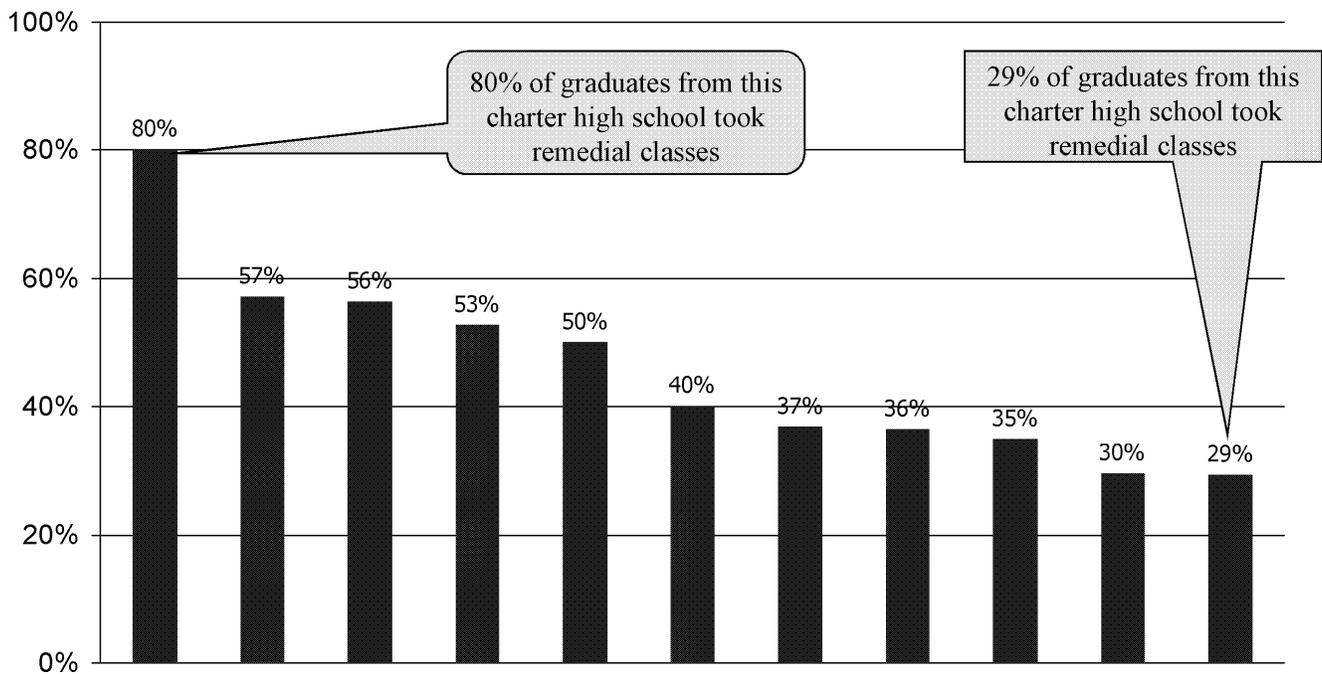
Percent of Public High School Graduates Taking Remedial Math And/Or Reading Courses In College  
By High School: 2008



**New Mexico's Public High Schools Ranked From High To Low Percentages (n=90)**

16 Note: Data does not include charter schools or alternative schools and public high schools with less than 10 students included in this study.

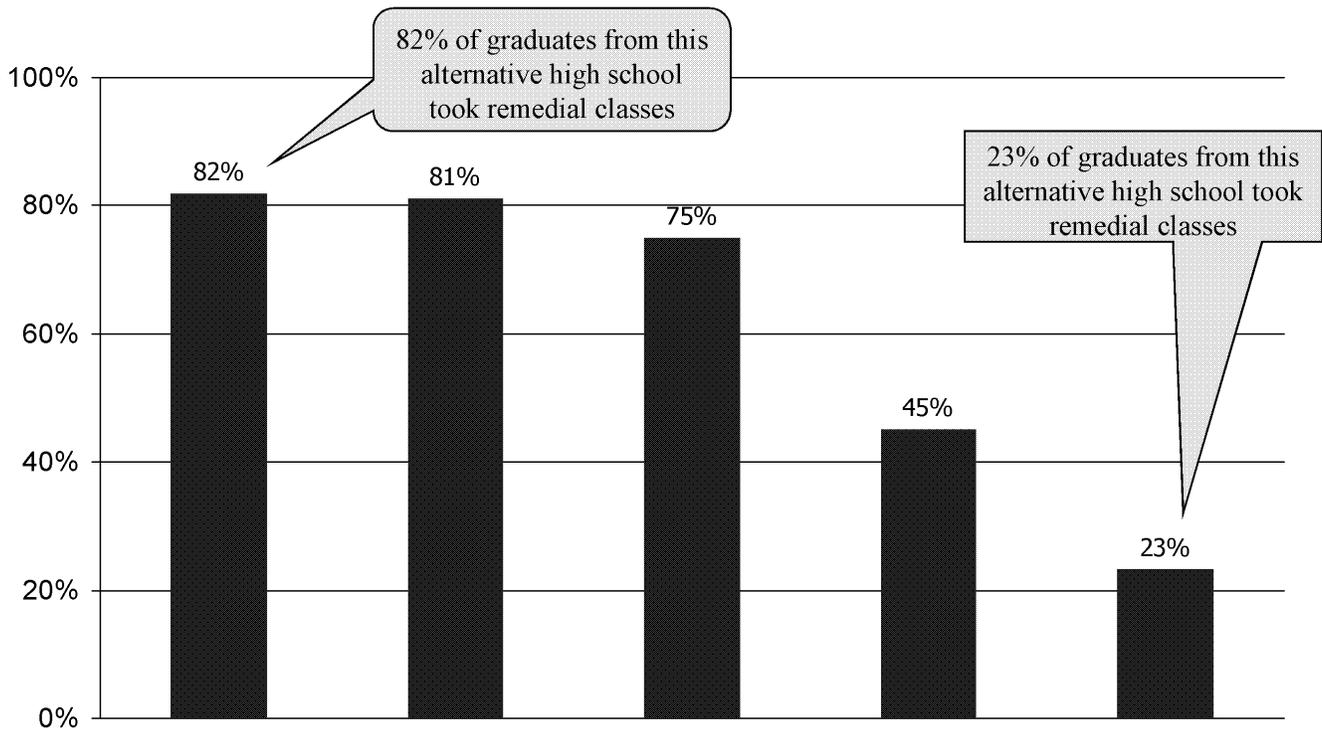
Percent of Public Charter High School Graduates Taking Remedial Math And/Or Reading Courses In College By High School: 2008



**New Mexico's Public Charter High Schools Ranked From High To Low Percentages (n=12)**

Note: Data does not include public high schools or alternative schools and public charter schools with less than 10 students included in this study.

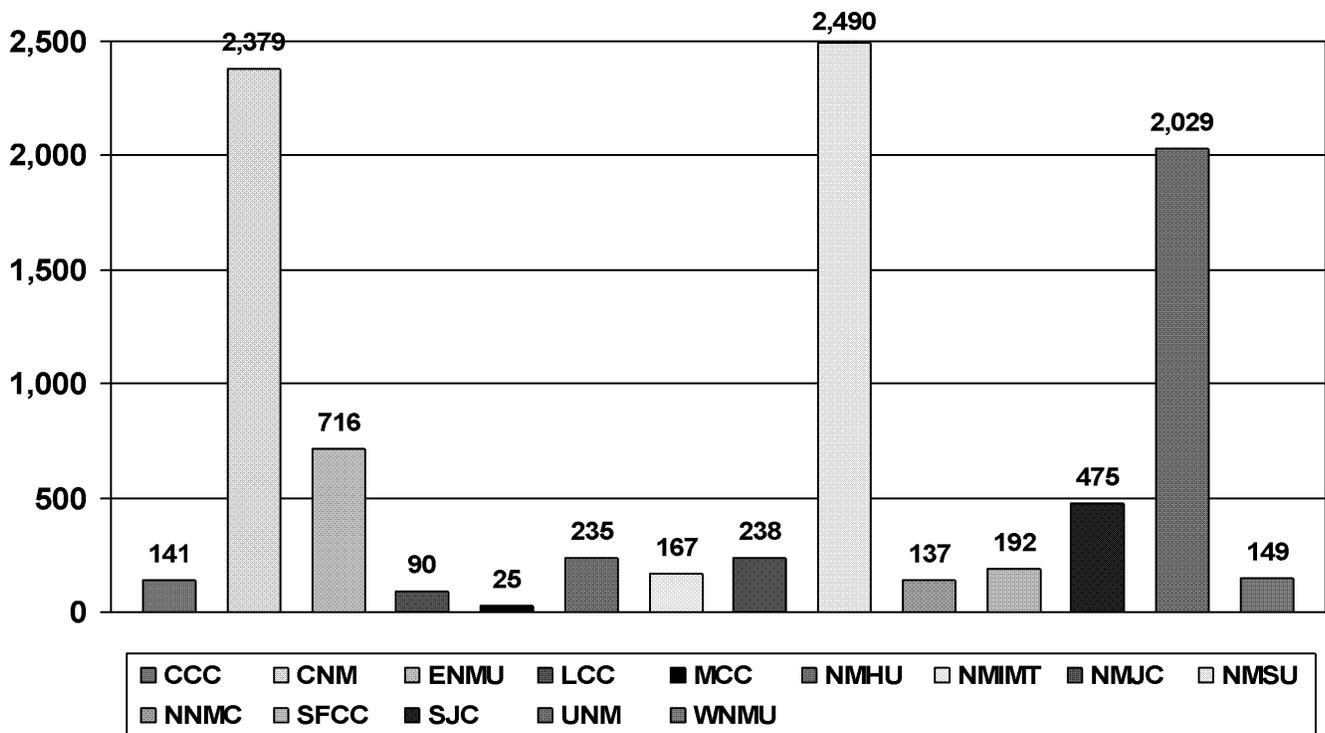
Percent of Public Alternative High School Graduates Taking Remedial Math And/Or Reading Courses In College By High School: 2008



**New Mexico's Public Alternative High Schools Ranked From High To Low Percentages (n=5)**

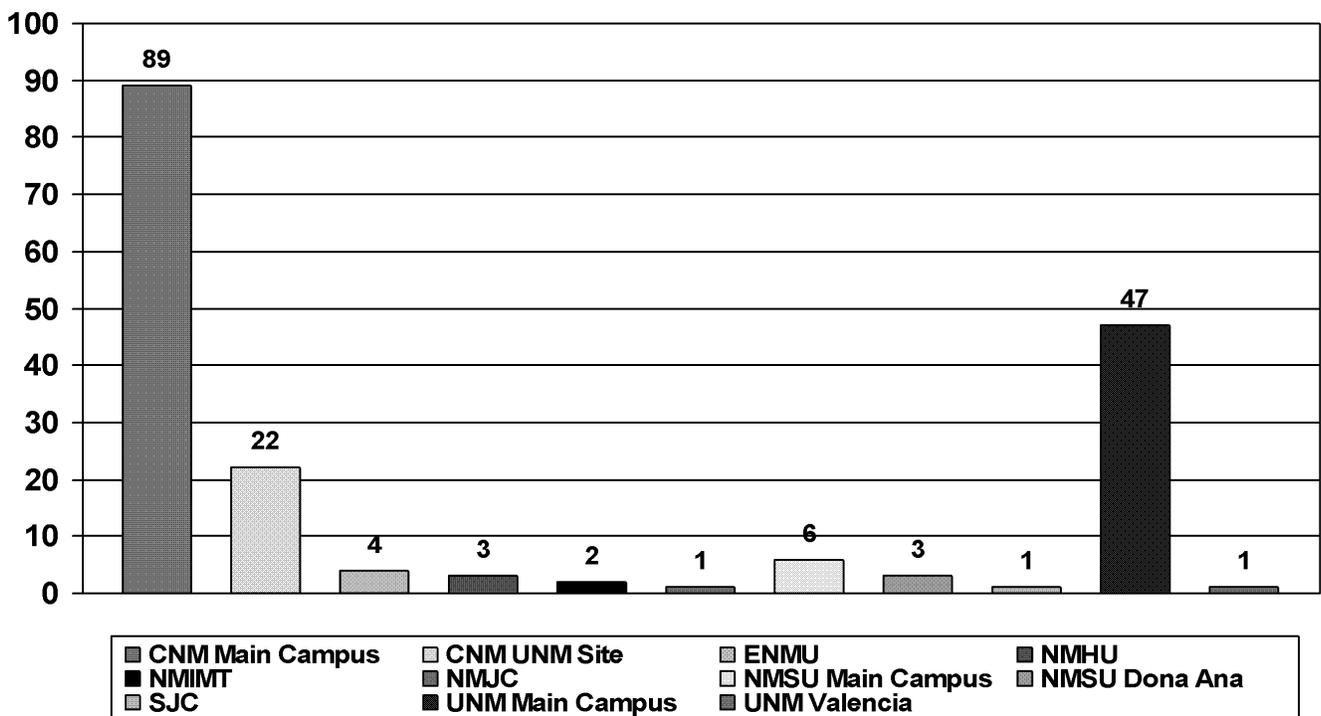
Note: Data does not include public high schools or charter schools and public alternative schools with less than 10 students included in this study.

New Mexico Public High School Graduates Attendance At New Mexico Colleges and Universities In Fall of 2008



Note: Data does not include charter schools or alternative schools

Example Report For An Individual New Mexico High School: College Attendance By High School (Fall 2008).



High Schools Interested In Obtaining Data For Their Schools  
Should Contact OEA at 505-476-1070

## Exploring The Relationship Between Proficiency On The 11<sup>th</sup> Grade New Mexico Standards-Based Assessments (NMSBA) In Math And Reading And College Readiness

### Data And Policy Questions To Consider:

- Does student performance on the NMSBA predict performance in college?
- Can public school teachers use the performance of their students on the NMSBA as one measure of how effectively they are preparing their students for success in college?
- Can students and parents have some confidence that performance on the NMSBA is related to student readiness for college?

## The Relationship Between The New Mexico Standards-Based Assessment (NMSBA) And The Need For College Remediation

- The 2009 study of the relationship between the NMSBA and the need for remediation in college is a detailed study of the comparison between the NMSBA math and reading scores of over 6,883 public high school students who were 11<sup>th</sup> graders in 2006-2007 with the number of remedial courses those same students took in college as freshmen in fall of 2008.
- The results of this study indicate a strong relationship between how students perform on the 11<sup>th</sup> grade NMSBA and how many remedial courses they take two years later in college. The better students perform on the 11<sup>th</sup> grade assessment, the less likely they are to take remedial courses in college.
- The high school redesign initiatives passed in 2007 and 2008 included refining the ways students are assessed in high schools. The traditional 9<sup>th</sup> grade assessments and high school competency exam are scheduled to be replaced with a set of exams that assess student readiness for high school, college, and the workplace. Once these new assessments are in place, it will be important to conduct similar analyses to ensure strong alignment between how students are assessed in high schools and how they are assessed in higher education.

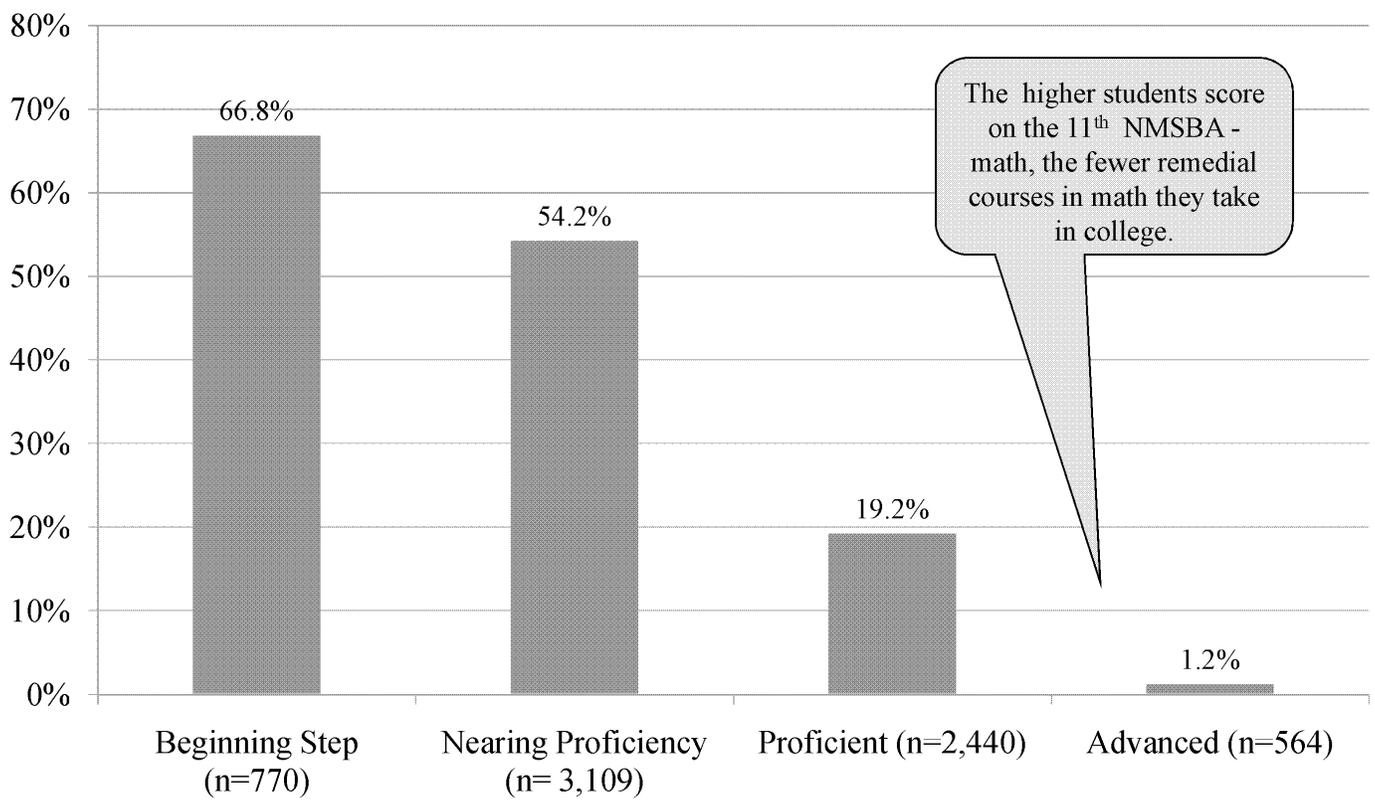
## The Relationship Between NMSBA Scaled Scores and Number of Remedial Courses Taken in College

<b>Descriptive Statistics</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>N</b>
NMSBA Math Scaled Scores	592.11	28.79	6,883
NMSBA Reading Scaled Scores	628.34	31.51	6,883
Number Of Remedial Courses Taken In Reading	.38	.64	6,883
Number Of Remedial Courses Taken In Math	.42	.55	6,883

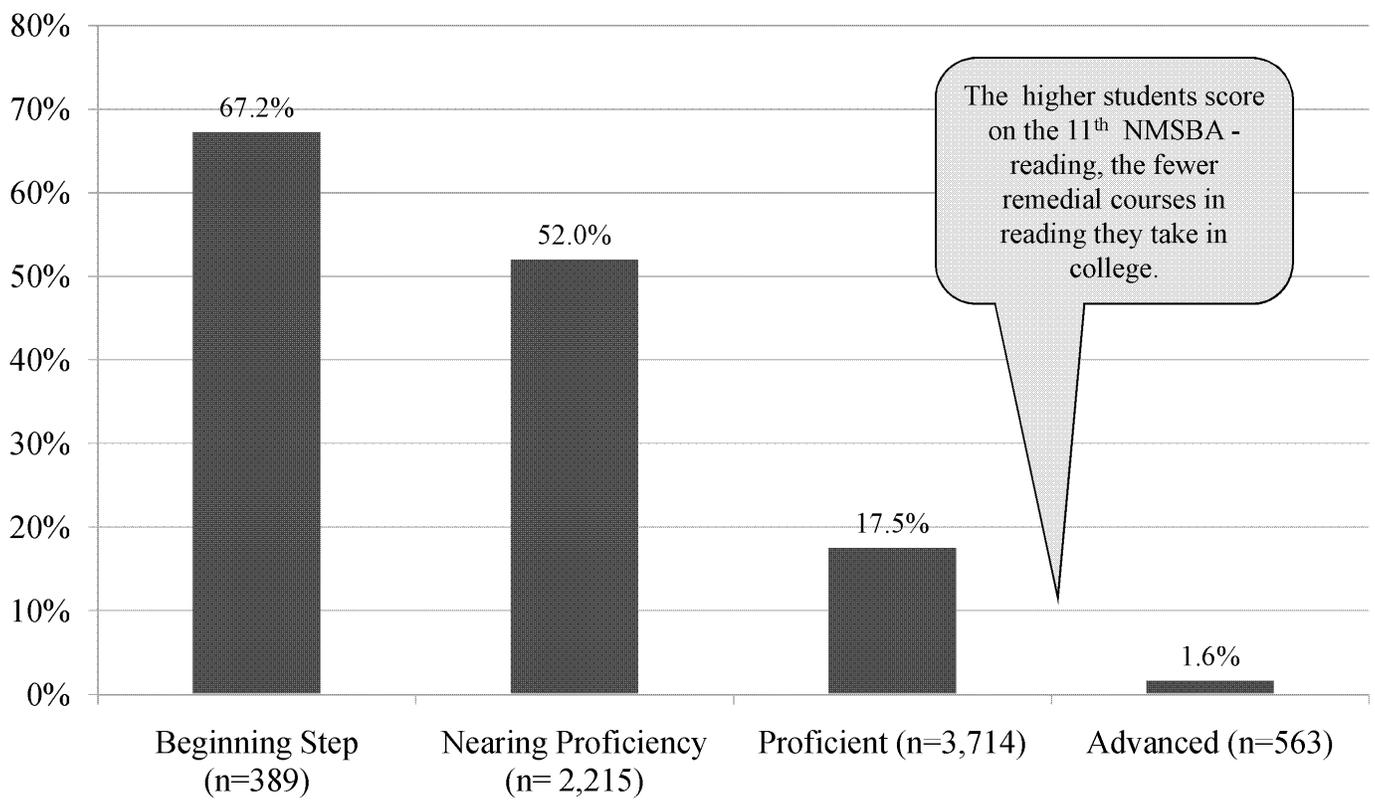
<b>Correlations</b>	<b>Number of Remedial Courses Taken In Math</b>	<b>Number of Remedial Courses Taken In Reading</b>
NMSBA Math Scaled Scores	-.425	
Significance	.000	
N	6,883	
NMSBA Reading Scaled Scores		-.440
Significance		.000
N		6,883

These significant correlations mean that public school students with higher scores on the NMSBA tended to take fewer remedial courses in college.

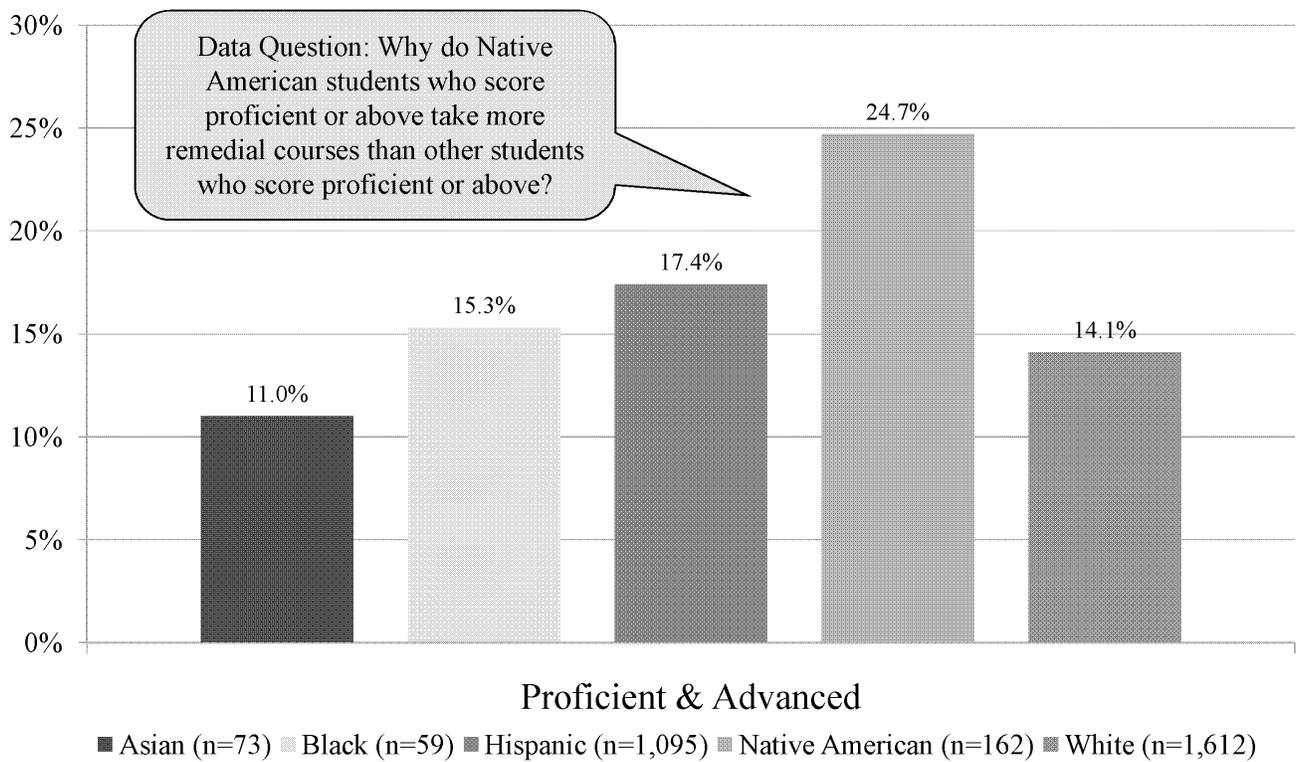
### The Relationship Between Performance Level On The NMSBA And The Percentage Of Students Who Took Remedial Courses In Math In College



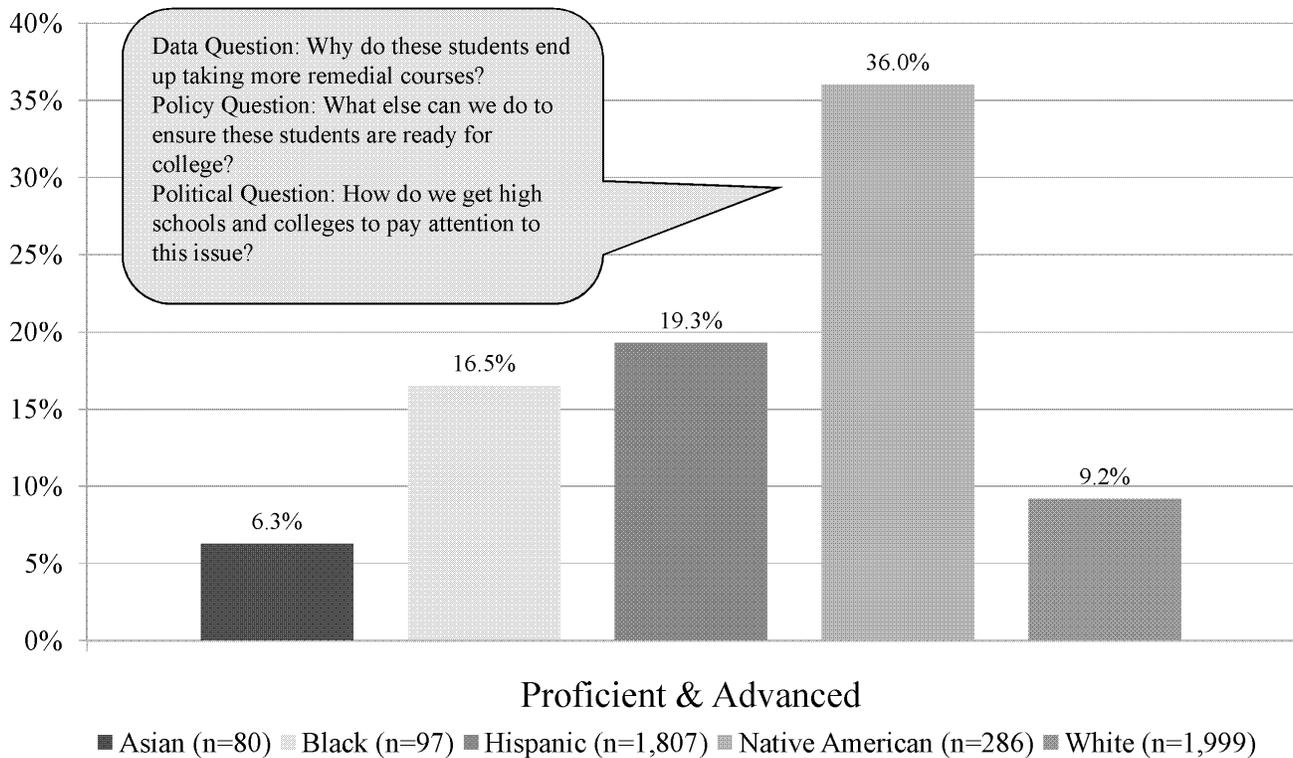
### The Relationship Between Performance Level On The NMSBA And The Percentage Of Students Who Took Remedial Courses In Reading In College



### The Percentage Of Students Who Scored Proficient Or Above On The 11<sup>th</sup> Grade NMSBA In Math And Took Remedial Courses In Math In College By Ethnicity



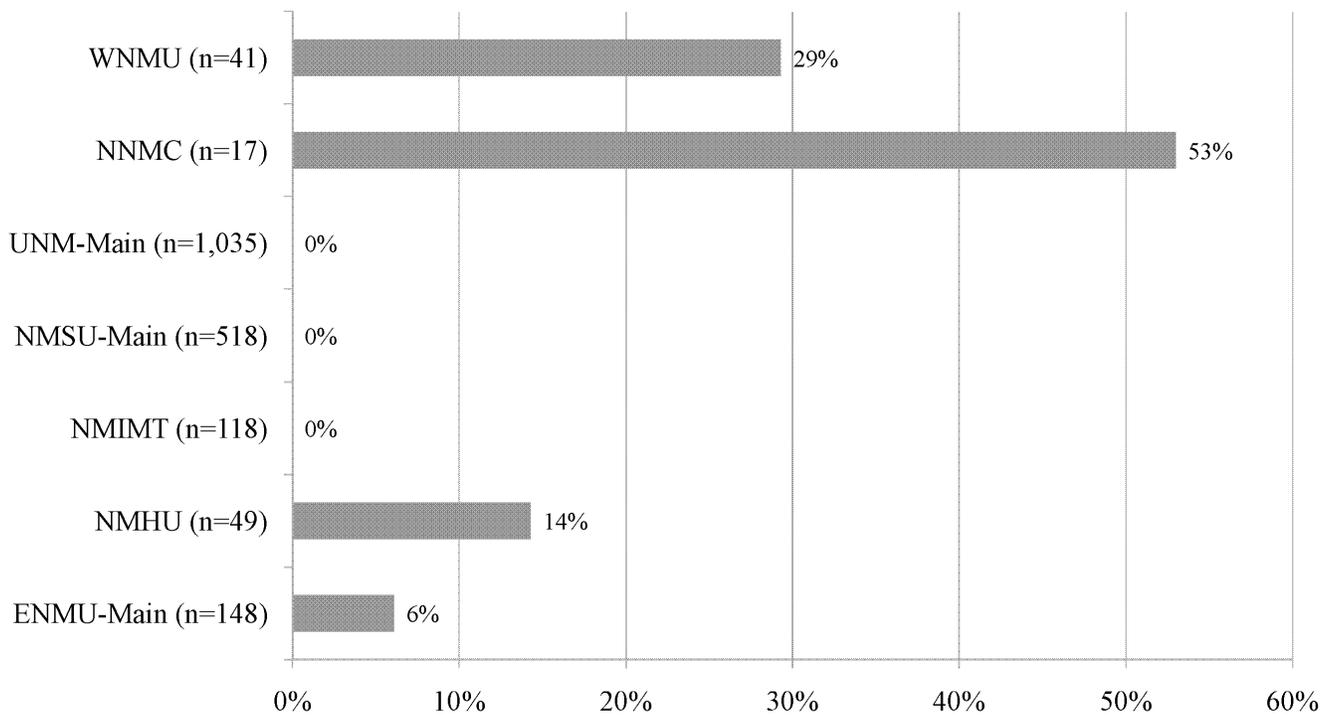
The Percentage Of Students Who Scored Proficient Or Above On The 11<sup>th</sup> Grade New Mexico Standards-Based Assessment In Reading And Took Remedial Courses In Reading In College Two Years Later By Ethnicity



## The Next Set Of Analyses Examined How Remedial Rates For Students Who Scored Proficient Or Above On The 11<sup>th</sup> Grade SBA Varied By College

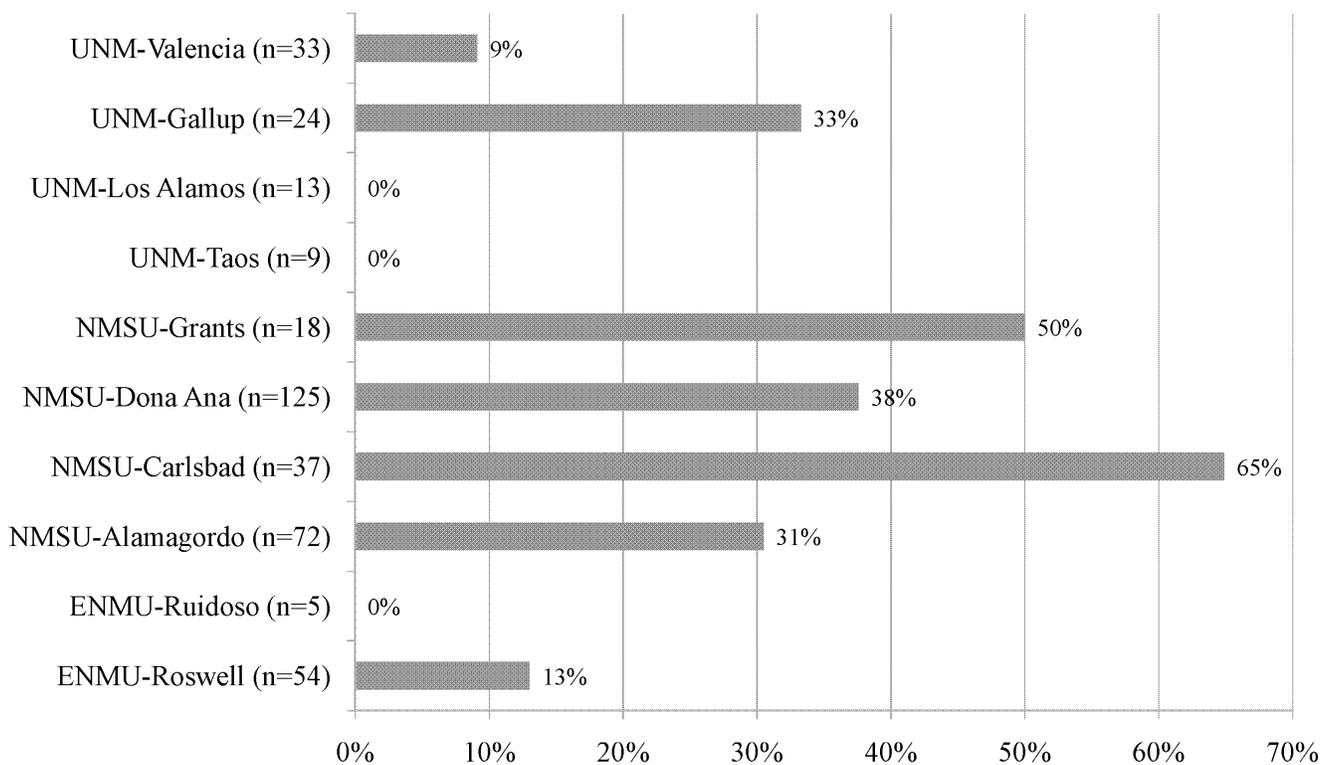
- It is important to note that colleges and universities handle student remediation differently.
  - NMAC 5.3.12.9 A(2) – Developmental credit: Developmental course credits are not eligible for funding credit at the doctoral institutions, nor for any degree or certification at any institution.
- The four year institutions often collaborate with two year colleges to provide developmental courses to those students who need remediation in math or reading.
- The following charts **DO NOT** assume that the 11<sup>th</sup> grade tests are correct and the college placement tests are wrong. The data do argue, however, that high schools and colleges need to have a clearer understanding of what the terms “proficient,” “advanced,” and “ready for college” means.
- These data also argue that we need a clearer understanding of how course taking patterns and other educational experiences, particularly in 12<sup>th</sup> grade, impact a student’s readiness for college. Clearly, scores on an 11<sup>th</sup> grade assessment are only one sign of college readiness.

## The Percentage Of Students Who Scored Proficient And Above On The 11<sup>th</sup> Grade NMSBA In Math And Who Took Remedial Courses In Math By 4-Year Colleges And Universities



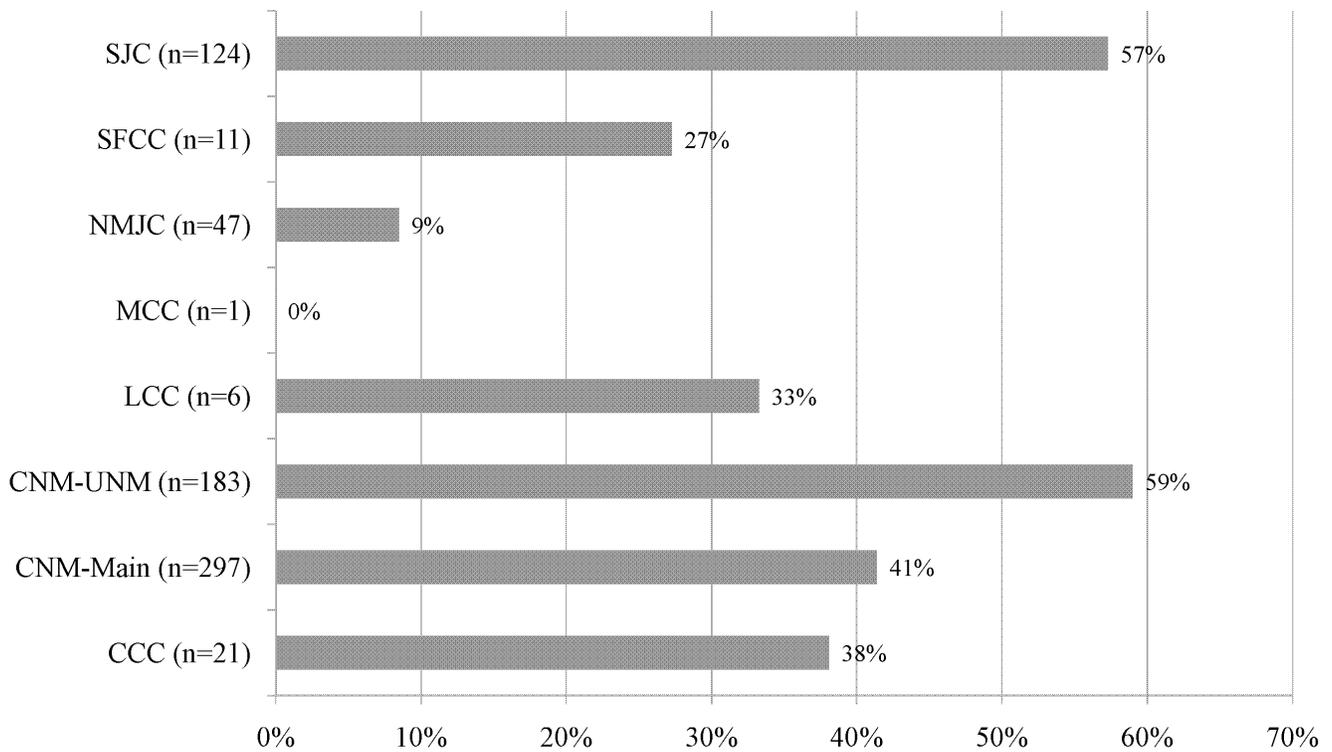
Note: Students may have attended several colleges during their first semester. These data are based on the first institution they attended.

The Percentage Of Students Who Scored Proficient And Above On The 11<sup>th</sup> Grade NMSBA In Math And Who Took Remedial Courses In Math By 4-Year Branch Campuses



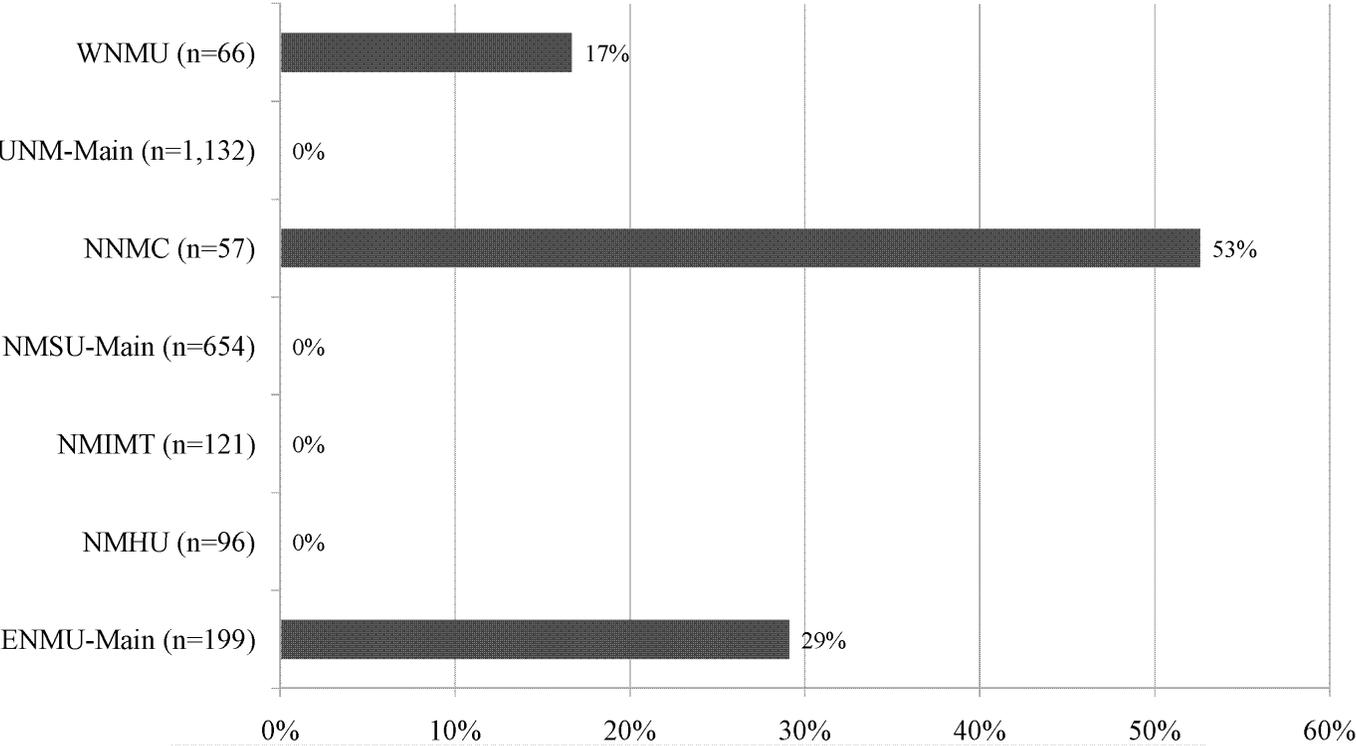
Note: Students may have attended several colleges during their first semester. These data are based on the first institution they attended.

The Percentage Of Students Who Scored Proficient And Above On The 11<sup>th</sup> Grade NMSBA In Math And Who Took Remedial Courses In Math By Community College



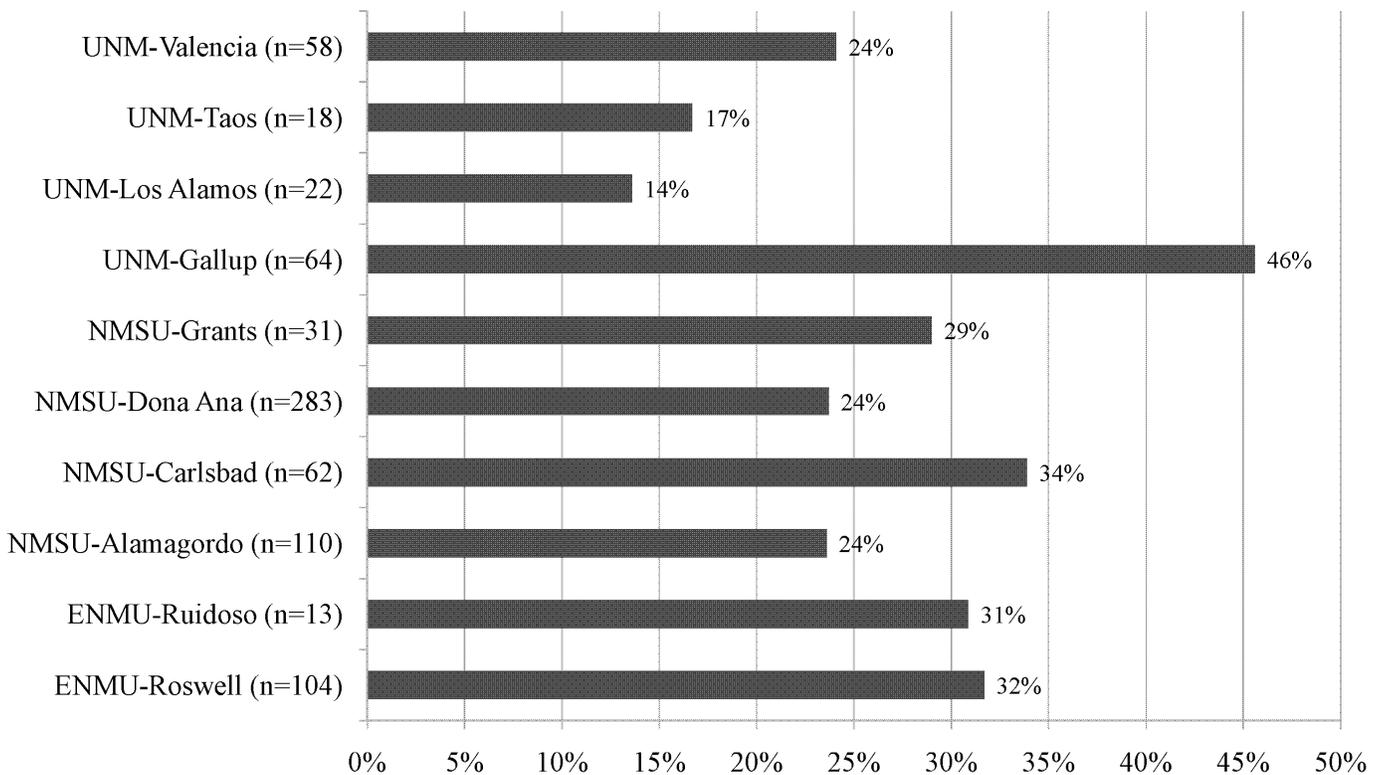
Note: Students may have attended several colleges during their first semester. These data are based on the first institution they attended.

The Percentage Of Students Who Scored Proficient And Above On The 11<sup>th</sup> Grade NMSBA In Reading And Who Took Remedial Courses In Reading By 4 -Year Colleges and Universities



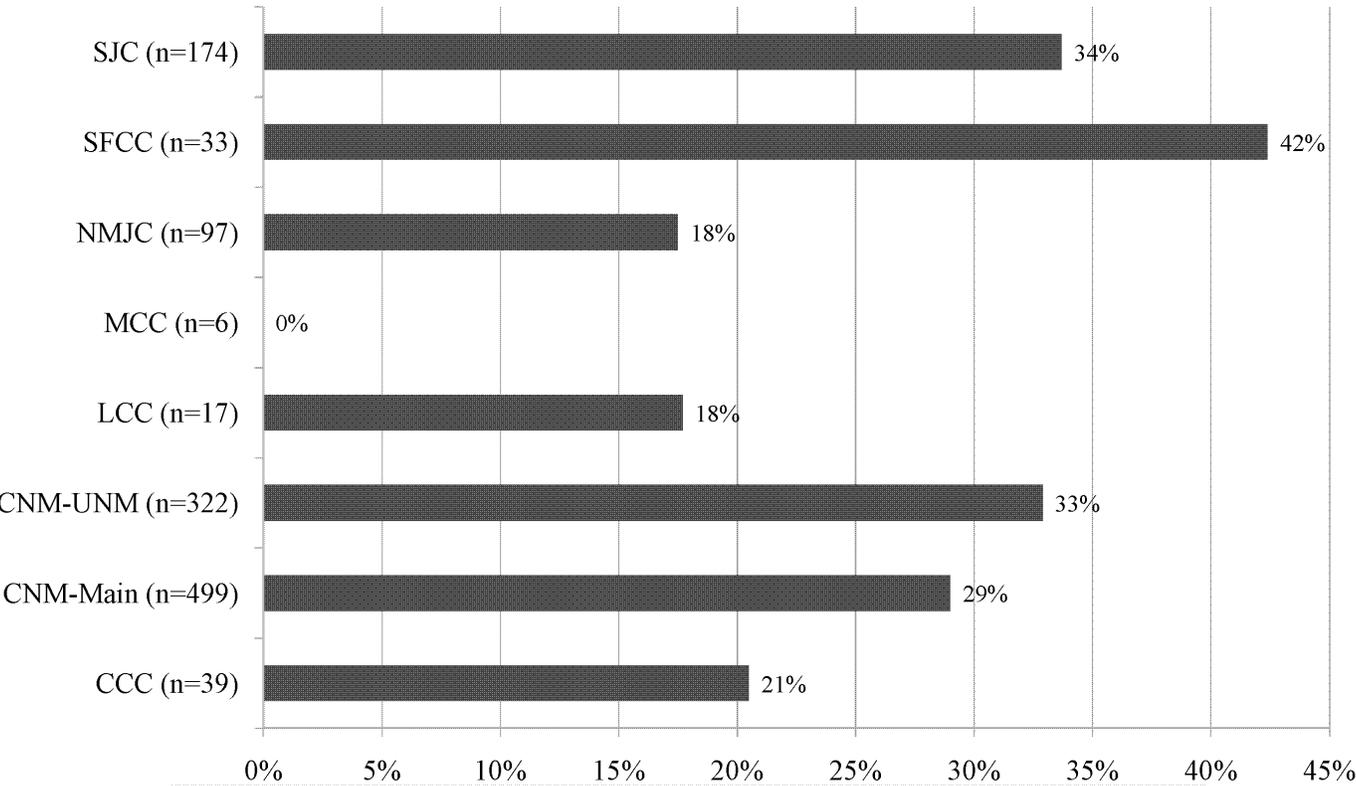
Note: Students may have attended several colleges during their first semester. These data are based on the first institution they attended.

The Percentage Of Students Who Scored Proficient And Above On The 11<sup>th</sup> Grade NMSBA In Reading And Who Took Remedial Courses In Reading By 4-Year Branch Campuses



Note: Students may have attended several colleges during their first semester. These data are based on the first institution they attended.

The Percentage Of Students Who Scored Proficient And Above On The 11<sup>th</sup> Grade NMSBA In Reading And Who Took Remedial Courses In Reading By Community College



Note: Students may have attended several colleges during their first semester. These data are based on the first institution they attended.

## The Relationship Between The New Mexico Standards Based Assessment (NMSBA) And The Need For College Remediation

- These analyses reveal that the relationship between students' performance on the 11<sup>th</sup> grade NMSBA and the number of remedial classes in math and reading they take in college is complex and impacted by factors including ethnicity and by college.
- These results do not mean that the SBA data is correct and remediation data is wrong, or visa versa. Rather, these results indicate that we need to study carefully how proficiency levels in high school assessments and cut scores in college assessments are determined, how they related to each other, and what they communicate to the students, parents, and educators who rely on them.

## Potential Policy Recommendations For Aligning Assessments In High School and College

- Ensure that proficient and above on the NMSBA means prepared for college.
- Examine the impact of existing college placement policies on student success in college.
- Communicate college entry standards to high school students and related audiences.
- Enhance the capacity of data and performance measurement systems to track and analyze remedial education outcomes.
- Aligning assessments is not just about the cut score. It is really about developing a common understanding of what college readiness means.

Sources: *It's Not About The Cut Score: Redesigning Placement Assessment Policy To Improve Student Success*. Michael Collins, Achieving The Dream, Jobs For The Future, July 2008  
*Transforming Statewide High School Assessment Systems: A Guide For State Policymakers*. Achieve, November 2008

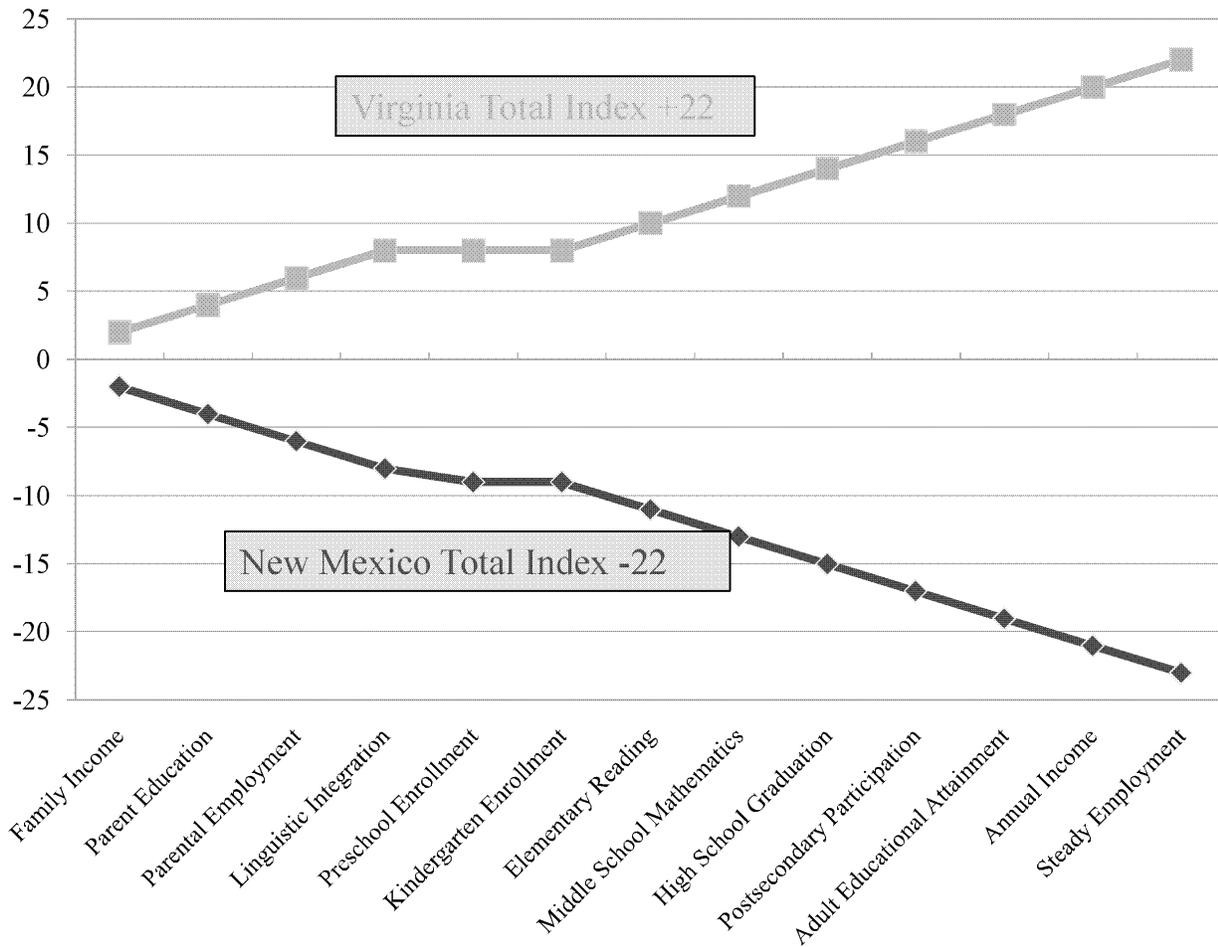
The Analyses Presented In The 2009 Ready For College Provide Examples Of How A Longitudinal Data System Can Help Us Improve The Transition Between High School And College.

These Analyses Also Illustrate Why New Mexico Needs An Effective Longitudinal Data System That Can Help Us Understand How Students Progress From Pre-Kindergarten Programs Through Public Education And On Into Higher Education And The Workforce

## Why New Mexico Needs A PreK-20 Data System

- The challenges New Mexico faces are systemic in nature.
- Identify ways to improve student success at every level of New Mexico education system from Pre-K through K-12 through postsecondary education and or the workforce.
- To provide teachers, principals and others with timely data that will help improve student achievement.
- Use the data in the system to improve the effectiveness and efficiency of New Mexico's efforts to improve its system of education.
- To comply with the federal America Competes Act and to meet the accountability requirements of the ARRA Funds.

## Quality Counts: 2007 Chance For Success



# What Is The Current Status Of New Mexico's PreK-20 Data System



## Data Quality 10 Essential Elements Of A Longitudinal Data System

(Source 2008 Data Quality Campaign and the National Center for Educational Achievement Survey)

Element	New Mexico
1. A unique statewide student identifier that connects student data across key databases across years.	Yes
2. Student-level enrollment, demographic and program participation information.	Yes
3. The ability to match individual students' test records from year to year to measure academic growth.	Yes
4. Information on untested students and the reasons they were not tested.	Yes
5. A teacher identifier system with the ability to match teachers to students.	Yes
6. Student-level transcript information, including information on courses completed and grades earned.	Yes
7. Student-level college readiness test scores.	No
8. Student-level graduation and dropout data.	Yes
9. The ability to match student records between the P-12 and higher education system.	Yes
10. A state data audit system assessing data quality, validity, and reliability.	Yes

## Data Quality Campaign's 10 State Actions To Ensure Effective Data Use

(Source 2009 Data Quality)

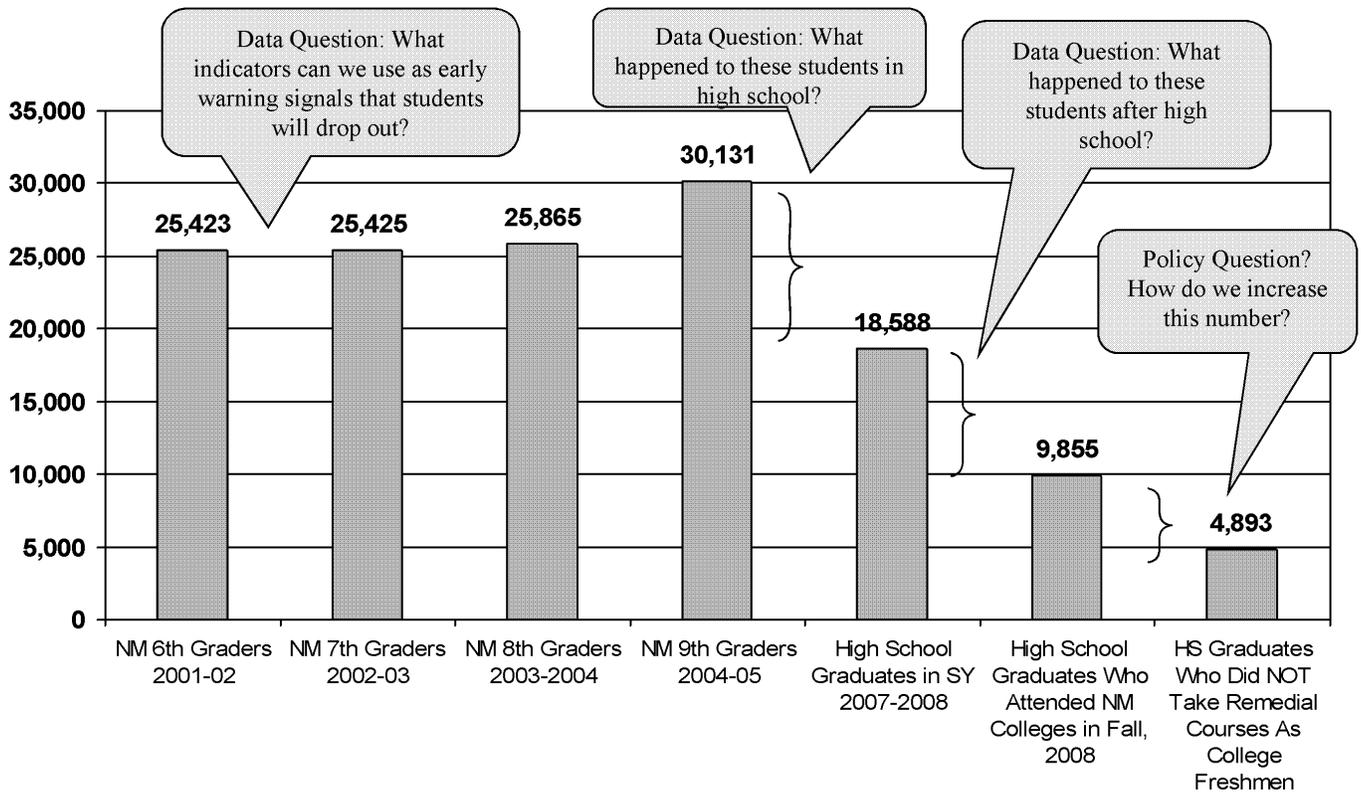
1. Link state K-12 data systems with early learning, postsecondary education, workforce, social services and other critical state agency data systems.
2. Create stable, sustained support for robust state longitudinal data systems.
3. Develop governance structures to guide data collection, sharing and use.
4. Build state data repositories (e.g. data warehouses) that integrate student, staff, financial and facility data.
5. Implement systems to provide all stakeholders timely access to the information they need while protecting student privacy.
6. Create progress reports with individual student data that provide information educators, parents and students can use to improve student performance.
7. Create reports that include longitudinal statistics on school systems and groups of students to guide school-district- and state-level improvement efforts.
8. Develop a purposeful research agenda and collaborate with universities, researchers and intermediary groups to explore the data for useful information.
9. Implement policies and promote practices, including professional development and credentialing, to ensure that educators know how to access, analyze and use data appropriately.
10. Promote strategies to raise awareness of available data and ensure that all key stakeholders, including state policy makers, know how to access, analyses and use the information.

## A Sample Of New Mexico's Policy Questions

These are some of the questions that an effective PreK-20 data system can help answer:

- How do students enrolled in Pre-K programs and K-3Plus programs perform once they enter later grades?
- How do we increase the level of student performance for all students and close the achievement gap among students?
- How do we increase the number of students who graduate from high school?
- How do we ensure that students graduate from high school ready for college and the workforce?
- What are the long-term impacts of New Mexico's dual credit and advanced placement initiatives?
- How do we ensure that more students enter college and successfully complete programs and degrees?
- How do we strengthen the relationship between education and the economy?
- How do we use our financial and other resources most efficiently?
- How will we know if these efforts are successful?

How Many Students Who Enter Public High School As Sixth-Graders End Up Seven Years Later Ready For College? (Numbers of students who entered 6<sup>th</sup> grade in 2001-02 and entered college in fall of 2008)



Note: Data includes charter schools and alternative schools

## What Are The ARRA Requirements For A P-20 Data System?

- ARRA Application (Part 2: Education Reform Assurances # 2): The State will establish a longitudinal data system that includes the elements described in section 6401(e)(2)(D) of the America Competes Act (20 U.S.C. 9871(e)(2)(D)). (Improving Collection and Use of Data Assurance)
- Available Data for the Initial Baseline: In September 2008, the Data Quality Campaign and the National Center For Education Achievement conducted a survey that assessed the status of State educational data systems.  
(See <http://www.dataqualitycampaign.org>) The survey identified ten essential elements of a longitudinal data system. Five of the elements are aligned with the five statutory elements in the America Competes Act for “Preschool through grade 12 and postsecondary education (20 U.S.C. 9871(e)(2)(D)(i), and the remaining five elements are aligned with the five statutory elements for “Preschool through grade 12 education.” (20 U.S.C. 9871(e)(2)(D)(ii). The Department will use the results of the survey to establish a State’s initial baseline for improving the collection and use of data.

## U.S. Education Department Preliminary Metrics For Evaluating States' Uses Of ARRA Funds

Better information to educators and the public, to address the individual needs of students and improve teacher performance. A state would report on the extent to which it has implemented a system to provide greater clarity to parents about the quality of their child's education. This system will enable educators to use real time information about the individual needs of students, move away from a one-size-fits-all approach to education, and improve their performance. In particular, a state would report:

- Progress towards implementing a statewide data system which included each of the 12 elements described in the America Competes Act, to track progress of individual students, from preschool through postsecondary education, and math students to individual teachers.
- Whether all teachers in mathematics and English Language Arts in tested grades receive timely data on the performance of their students and estimates of individual teacher impact on student achievement, in a manner that informs instruction and includes appropriate benchmarks.

## America Competes Act (S 761)

1. A unique statewide student identifier that does not permit a student to be individually identified by users of the system; DQC element 1
2. Student-level enrollment, demographic, and program participation information; DQC element 2
3. Student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs; DQC element 8
4. The capacity to communicate with higher education data systems; DQC element 9, and
5. A State data audit system assessing data quality, validity, and reliability; DQC element 10
6. Yearly test records of individual students with respect to assessments under section 1111(b) of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6311(b)); DQC element 3
7. Information on students not tested by grade and subject; DQC element 4
8. A teacher identifier system with the ability to match teachers to students; DQC element 5
9. Student-level transcript information, including information on courses completed and grades earned; DQC element 6 , and
10. Student-level college readiness test scores; DQC element 7
11. Information regarding the extent to which students transition successfully from secondary school to postsecondary education, including whether students enroll in remedial coursework; DQC element 9(a), and
12. Other information determined necessary to address alignment and adequate preparation for success in postsecondary education. DQC element 9(b)

## Governor Richardson's Executive Order 2009-019 Establishing The New Mexico Data Warehouse Council

- Identifies the membership, governance, and meeting schedule of the Council.
- Establishes an Advisory Panel to provide independent technical review of the technical feasibility of policies, proposals, and guidelines under consideration by the Council.
- Sets the Council's goals including:
  - Identify ways to improve student success at every level of New Mexico education system from Pre-K through K-12 through postsecondary education and/or the work force.
  - Provide teachers, principals, parents and others with timely data that will help improve student achievement at all levels of the education system.
  - Provide the Governor and other policy makers with data that can help improve the alignment, effectiveness and efficiency of the New Mexico PreK-20 education system.
- Identifies the Council's duties including establishing a longitudinal data system that meets the requirements of ARRA; submitting a data system proposal to the U.S Department of Education; developing management plans, interagency agreements, and strategic plans; remove barriers so that state agencies can produce timely and useable data reports; and report by December 31 of each year on the progress, status of the Council, and written reports available from the Council.

## What Types Of Reports Should NM's P-20 Data System Produce?

## Key Reports Proposed In New Mexico (These recommendations were proposed in SB581 introduced in the 2009 Legislative Session)

- Connect student records from pre-kindergarten through post-graduate education;
- Connect public school educator data to student data;
- Match individual public school students' test records from year to year to measure academic growth, including student-level college and career readiness test scores;
- Report the number and percentage of untested public school students by school district and by school and by major ethnic group, special education status, poverty status, and gender;
- Report high school longitudinal graduation and dropout data, including information that distinguishes between dropouts or students whose whereabouts are unknown and students who have transferred to other schools, including private schools or home schools, other school districts or other states;
- Provide post-secondary remediation data, including assessment scores on exams used to determine the need for remediation; provide post-secondary remedial course enrollment history, including the number and type of credit and noncredit remedial courses being taken;
- Report post-secondary retention data that indicate whether students are returning the second fall term after being enrolled as full-time first-time degree-seeking students;

## Key Reports Proposed In New Mexico (SB 581)(continued)

- Report to New Mexico public high schools on their students who enroll in a public post-secondary educational institution within three years of graduating or leaving the high school regarding freshman-year outcomes;
- Provide post-secondary student completion status, including information that indicates if students are making annual progress toward their degrees;
- Include data regarding students who have earned a general educational development certificate in reporting post-secondary outcomes;
- Report data collected for the educator accountability reporting system;
- Report pre-kindergarten through postgraduate student-level enrollment data, demographic information and program participation information;
- Report pre-kindergarten through postgraduate student-level transcript information, including student-level transcript information, information on courses completed, grades earned and cumulative grade point average;
- Connect performance with financial information at all levels;
- Establish and maintain a state data audit system to assess the quality, validity and reliability of data;
- Provide any other student-level and educator data necessary to assess the performance of the pre-kindergarten through post-graduate system.

# Trend Data For New Mexico's Public High Schools, Charter and Alternative High Schools Are Included In The Appendix

Please Note That Data For High Schools With Less Than 10 High School Graduates A Year Included In This Study Have Been Removed To Protect Student Confidentiality.

High Schools Interested In These Data May Contact The Office Of Education Accountability 505-476-1070

## In Summary

- Half of New Mexico's high school graduates take remedial courses in math and/or reading when they get to college. This trend has not changed over the last seven years.
- New Mexico is implementing educational reforms aimed at ensuring that high school graduates are ready for college. These reforms will take time to implement and we need to monitor their effectiveness carefully.
- New Mexico has made progress in its capacity to use longitudinal data to examine high school graduates' readiness for college. However, more needs to be done to ensure that the state has an effective PreK-20 data system.

## For More Information

- ▶ The Office Of Education Accountability, New Mexico  
Department of Finance and Administration
  - Telephone: 505-476-1070
  - <http://education.nmdfa.state.nm.us>
- ▶ New Mexico Higher Education Department
  - Telephone: 505-476-8400
  - <http://www.hed.state.nm.us>
- ▶ New Mexico Public Education Department
  - Telephone: 505-827-5661
  - <http://www.ped.state.nm.us>

Ready for College 2009 Appendix

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
High School		2000		2001		2002		2003		2004		2005		2006		2007		2008		
High School	School Type	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	
Senior High School	Public	196	45.9%	173	52.0%	186	50.0%	176	49.4%	171	52.6%	181	49.2%	192	49.5%	182	50.0%	232	47.8%	
High School	Public	155	58.1%	134	61.9%	140	57.1%	153	56.9%	154	57.1%	132	50.0%	132	54.5%	145	51.7%	197	57.9%	
High School	Public	17	64.7%	13	38.5%	less than 10	See footnote	less than 10	See footnote	less than 10	See footnote	less than 10	40.0%	11	36.4%	13	38.5%	15	40.0%	
High School	Public	73	37.0%	108	52.8%	95	53.7%	106	57.5%	94	57.4%	106	57.5%	88	53.4%	107	48.6%	124	46.8%	
High School	Public	61	42.6%	64	59.4%	66	68.2%	78	52.6%	96	57.3%	80	55.0%	49	51.0%	76	52.7%	104	64.4%	
High School	Public	108	50.0%	102	53.9%	122	62.3%	140	58.6%	121	66.1%	138	68.8%	112	59.8%	141	53.9%	131	58.8%	
High School	Public	34	58.8%	38	65.8%	42	71.4%	39	76.9%	34	52.9%	69	73.9%	46	67.4%	52	67.3%	72	61.1%	
High School	Public	35	45.7%	25	56.0%	63	71.4%	60	55.0%	60	56.7%	71	60.6%	23	60.9%	81	61.8%	58	63.8%	
High School	Public	85	67.1%	80	62.5%	95	70.5%	86	73.3%	64	71.9%	76	68.4%	92	77.2%	80	80.0%	117	74.4%	
High School	Public	20	45.0%	17	23.5%	27	48.1%	14	42.9%	17	29.4%	17	47.1%	11	9.1%	22	54.5%	24	41.7%	
High School	Public	168	54.2%	136	64.7%	143	65.7%	164	61.0%	178	59.4%	156	55.1%	166	60.2%	144	56.2%	187	54.5%	
High School	Public	less than 10	See footnote	less than 10	See footnote	10	20.0%	less than 10	See footnote	11	27.3%	12	41.7%							
High School	Public	59	76.3%	58	65.5%	66	62.1%	81	69.1%	72	70.8%	66	72.7%	44	68.2%	75	81.3%	80	67.5%	
High School	Public	189	40.8%	228	43.9%	265	50.9%	278	42.1%	326	48.5%	289	38.4%	341	42.8%	375	43.0%	399	40.9%	
High School	Public	15	33.3%	11	27.3%	less than 10	See footnote	17	64.7%	less than 10	See footnote	less than 10	See footnote	16	37.6%	less than 10	See footnote	10	40.0%	
High School	Public	18	44.4%	13	7.7%	12	16.7%	less than 10	See footnote	16	12.5%	17	35.3%	17	41.2%	13	30.8%	less than 10	See footnote	
High School	Public	17	52.9%	12	33.3%	13	53.8%	12	25.0%	15	40.0%	13	38.5%	11	36.4%	18	38.9%	11	18.2%	
High School	Public	24	41.7%	22	31.8%	18	44.4%	22	22.7%	22	40.9%	20	40.0%	32	40.6%	32	37.5%	26	38.5%	
High School	Public	147	36.1%	144	42.4%	132	47.7%	144	45.8%	152	57.2%	165	56.4%	143	51.0%	228	51.7%	215	51.2%	
High School	Public	54	59.3%	46	69.6%	29	44.8%	45	66.7%	43	86.0%	56	64.3%	36	55.6%	44	56.9%	43	62.8%	
High School	Public	less than 10	See footnote																	
High School	Public	10	70.0%	13	46.2%	11	45.5%	11	63.6%	less than 10	See footnote	12	91.7%	13	38.5%	11	63.7%	13	30.8%	
High School	Public	12	50.0%	12	75.0%	19	68.4%	18	61.1%	21	90.5%	less than 10	See footnote	24	70.8%	22	100.0%	26	69.2%	
High School	Public	22	50.0%	12	91.7%	14	14.3%	24	54.2%	12	75.0%	27	66.7%	11	54.5%	21	57.1%	26	69.2%	
High School	Public	166	48.2%	142	42.3%	175	52.6%	162	45.1%	130	44.6%	157	52.9%	133	47.4%	161	50.9%	179	56.4%	
High School	Public	79	57.0%	78	59.0%	95	40.0%	99	63.6%	113	62.8%	115	60.0%	106	58.5%	108	61.1%	119	57.1%	
High School	Public	less than 10	NA	less than 10	See footnote	none	See footnote	less than 10	See footnote											
High School	Public	18	33.3%	29	72.4%	38	60.5%	40	45.0%	44	81.8%	36	63.9%	35	57.1%	38	73.7%	46	58.7%	
High School	Public	less than 10	See footnote	11	18.2%															
Dental School	Public	less than 10	See footnote	less than 10	See footnote	12	66.7%	less than 10	See footnote											
High School	Public	220	23.6%	253	32.8%	253	38.3%	272	32.7%	294	34.7%	266	42.1%	265	34.0%	297	35.4%	266	36.8%	
High School	Public	less than 10	See footnote																	
High School	Public	13	33.8%	21	52.4%	10	40.0%	15	46.7%	15	46.7%	16	50.0%	10	50.0%	18	72.3%	24	37.5%	

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
High School		2000		2001		2002		2003		2004		2005		2006		2007		2008		
	School Type	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	
KEY HIGH SCHOOL	Public	65	44.6%	77	71.4%	70	62.9%	74	68.9%	118	65.3%	73	68.5%	74	73.0%	116	71.5%	103	62.1%	
SCHOOL	Public	11	63.6%	17	64.7%	22	50.0%	11	54.3%	20	50.0%	19	42.1%	28	46.4%	35	48.6%	36	47.2%	
SCHOOL	Public	10	60.0%	19	78.9%	13	61.5%	less than 10	See footnote	less than 10	See footnote	less than 10	See footnote	13	53.8%	19	36.9%	14	42.9%	
GH SCHOOL	Public	189	64.0%	134	61.2%	140	59.3%	181	57.5%	184	57.1%	146	56.8%	112	62.5%	153	66.6%	145	57.2%	
SCHOOL	Public	less than 10	See footnote	less than 10	See footnote	11	54.5%	less than 10	See footnote	11	54.5%	less than 10	See footnote	11	72.7%	10	60.0%	15	53.3%	
HIGH SCHOOL	Public	16	68.8%	12	41.7%	19	52.6%	10	30.0%	less than 10	See footnote	13	30.8%	13	38.5%	17	29.4%	less than 10	See footnote	
SCHOOL	Public	109	67.0%	113	64.6%	129	69.0%	144	70.1%	170	60.6%	184	60.3%	179	62.6%	219	56.7%	226	51.3%	
SCHOOL	Public	94	51.1%	127	57.5%	157	59.2%	158	57.0%	136	48.5%	150	58.0%	153	63.4%	142	68.3%	209	58.4%	
SCHOOL	Public	57	33.3%	106	33.0%	122	49.2%	149	44.3%	116	43.1%	144	46.5%	119	45.4%	138	52.1%	153	45.8%	
SCHOOL	Public	less than 10	See footnote	less than 10	See footnote	less than 10	See footnote	No Data	No Data	less than 10	See footnote									
SCHOOL	Public	84	60.7%	73	50.7%	68	60.3%	68	67.6%	69	49.3%	57	52.6%	83	51.8%	97	51.5%	91	62.6%	
H SCHOOL	Public	less than 10	See footnote	10	60.0%	11	90.9%	14	78.6%	15	73.3%	12	33.3%	13	53.8%	17	35.3%	20	60.0%	
HIGH SCHOOL	Public	28	60.7%	24	37.5%	26	80.8%	31	61.3%	37	56.8%	44	68.2%	37	62.2%	37	43.2%	45	66.7%	
SCHOOL	Public	125	45.6%	143	41.3%	128	56.3%	134	47.0%	123	56.1%	129	51.9%	139	58.3%	150	60.7%	138	60.1%	
SCHOOL	Public	142	62.7%	118	60.2%	145	57.9%	148	45.9%	41	46.3%	39	25.6%	116	42.2%	176	31.8%	184	42.9%	
SCHOOL	Public	less than 10	See footnote																	
GH SCHOOL	Public	29	48.3%	41	43.9%	22	40.9%	36	36.1%	48	45.8%	24	33.3%	47	51.1%	43	41.9%	38	26.8%	
AL HIGH SCHOOL	Public	less than 10	See footnote	11	27.3%	less than 10	See footnote	less than 10	See footnote	less than 10	See footnote									
SCHOOL	Public	less than 10	See footnote	12	33.3%	less than 10	See footnote	10	40.0%	less than 10	See footnote									
HIGH SCHOOL	Public	10	90.0%	18	50.0%	13	76.9%	18	77.8%	less than 10	See footnote	11	45.5%							
SCHOOL	Public	242	21.9%	214	28.0%	280	23.9%	280	31.1%	266	22.2%	253	26.1%	261	23.0%	322	25.5%	319	24.8%	
HIGH SCHOOL	Public	18	72.2%	11	54.5%	less than 10	See footnote	16	87.5%	19	63.2%	15	40.0%	11	63.6%	25	68.0%	31	58.1%	
GH SCHOOL	Public	No Data	No Data	less than 10	See footnote															
SCHOOL	Public	204	41.2%	232	44.4%	239	41.8%	241	49.0%	278	45.7%	259	44.0%	252	41.7%	300	36.3%	280	38.6%	
SCHOOL	Public	less than 10	See footnote	11	45.5%	less than 10	See footnote													
GH SCHOOL	Public	less than 10	See footnote	less than 10	See footnote	15	86.7%	less than 10	See footnote	less than 10	See footnote	10	80.0%	16	50.0%	11	81.9%	13	76.9%	
GH SCHOOL	Public	95	31.6%	110	20.0%	106	26.4%	118	23.7%	125	21.6%	102	21.6%	129	31.0%	134	23.1%	132	30.3%	
SCHOOL	Public	177	52.0%	171	44.4%	190	55.3%	169	55.0%	190	53.7%	190	46.3%	233	47.6%	224	54.1%	252	51.6%	
SCHOOL	Public	13	76.9%	20	60.0%	13	76.9%	20	65.0%	15	93.3%	18	83.3%	16	81.3%	18	61.2%	20	70.0%	
H SCHOOL	Public	59	49.2%	67	43.3%	67	47.8%	49	28.6%	24	45.8%	13	30.8%	34	50.0%	53	43.4%	68	64.7%	

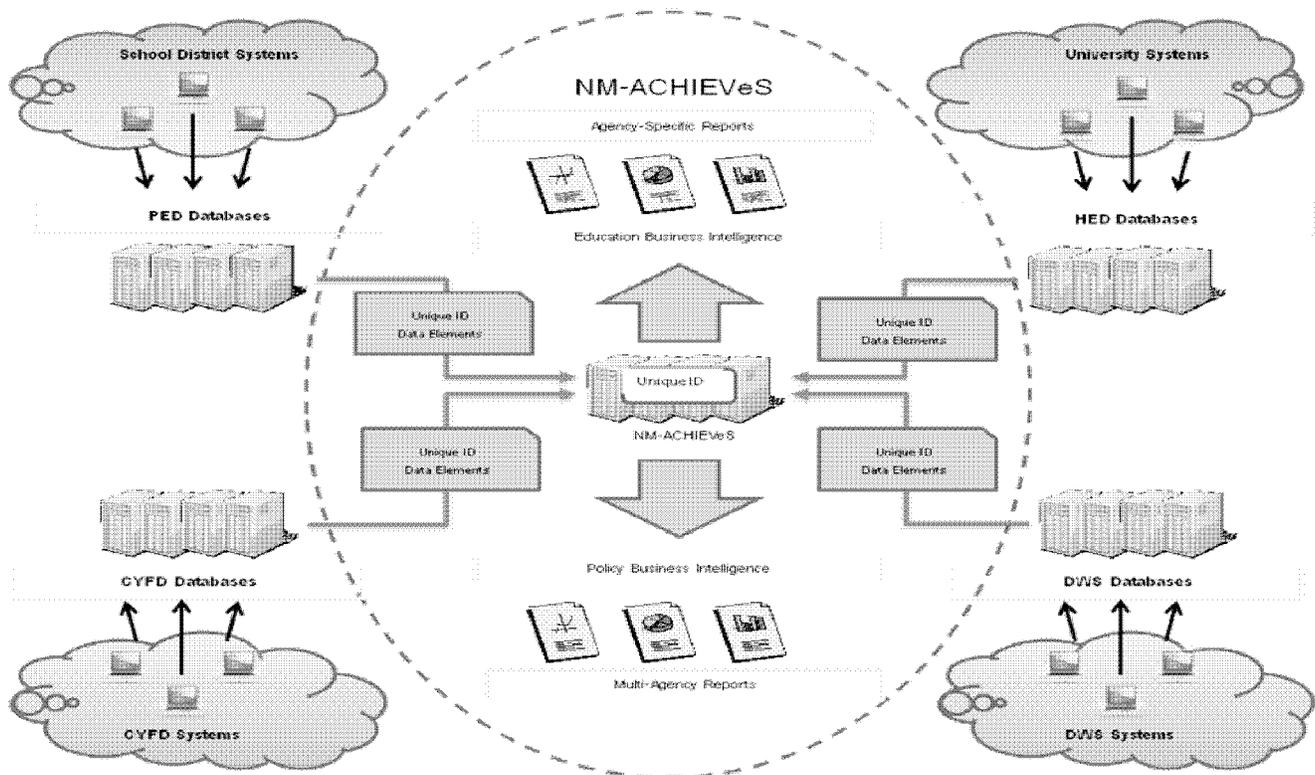


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High School	School Type	2000		2001		2002		2003		2004		2005		2006		2007		2008	
		N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes	N of HS Grads In Study	% Taking Remedial Classes
SCHOOL	Public	54	51.9%	44	36.4%	43	55.8%	64	50.0%	58	27.6%	67	31.3%	80	33.8%	78	44.8%	78	44.9%
SCHOOL	Public	less than 10	See footnote																
SCHOOL	Public	224	37.9%	189	34.4%	225	33.8%	230	35.2%	244	32.0%	279	35.8%	263	31.9%	265	35.0%	280	34.6%
SCHOOL	Public	162	49.4%	137	52.6%	152	50.0%	198	52.5%	128	54.7%	126	54.0%	161	57.8%	194	62.9%	174	62.6%
SCHOOL	Public	13	23.1%	18	16.7%	27	63.0%	24	45.8%	24	54.2%	23	47.8%	23	56.5%	41	43.9%	24	54.2%
SCHOOL	Public	59	74.6%	61	78.7%	50	72.0%	72	77.8%	55	74.5%	69	53.6%	67	62.7%	101	66.3%	115	58.3%
SCHOOL	Public	41	75.6%	28	75.0%	36	77.8%	38	73.7%	54	74.1%	45	77.8%	41	85.4%	34	82.4%	64	73.4%
SCHOOL	Public	85	42.4%	86	47.7%	91	49.5%	105	51.4%	92	47.8%	86	43.0%	118	35.6%	79	39.3%	74	33.8%
SCHOOL	Public	44	52.3%	40	32.5%	34	44.1%	50	26.0%	53	34.0%	51	29.4%	62	33.9%	55	41.8%	57	31.6%
SCHOOL	Public	less than 10	See footnote	10	40.0%	less than 10	See footnote												
SCHOOL	Public	69	42.0%	64	46.9%	62	35.5%	62	38.7%	79	58.2%	65	43.1%	67	62.7%	98	46.9%	111	49.5%
SCHOOL	Public	10	60.0%	12	41.7%	less than 10	See footnote	10	30.0%	less than 10	See footnote								
SCHOOL	Public	10	10.0%	11	54.5%	less than 10	See footnote	less than 10	See footnote	11	63.6%	19	47.4%	21	33.3%	14	28.5%	23	52.2%
SCHOOL	Public	22	59.1%	16	43.8%	less than 10	See footnote	17	58.8%	25	56.0%	19	68.4%	12	91.7%	33	78.8%	26	53.8%
SCHOOL	Public	16	68.8%	10	90.0%	32	65.6%	25	84.0%	24	87.5%	26	73.1%	26	65.4%	32	84.4%	29	79.3%
SCHOOL	Public	No Data	No Data	less than 10	See footnote	less than 10	See footnote												
SCHOOL	Public	38	50.0%	27	29.6%	32	40.6%	20	60.0%	30	63.3%	30	30.0%	32	34.4%	30	40.0%	24	33.3%
SCHOOL	Public	18	72.2%	41	53.7%	34	44.1%	26	57.7%	29	82.8%	24	62.5%	29	51.7%	46	71.7%	28	57.1%
SCHOOL	Public	No Data	No Data	less than 10	See footnote	less than 10	See footnote												
SCHOOL	Public	No Data	No Data	12	100.0%	15	66.7%	13	84.6%	18	77.8%	10	100.0%	14	85.7%	20	65.0%	17	82.4%
SCHOOL	Public	241	47.3%	191	55.5%	208	50.0%	207	51.7%	190	48.9%	207	47.8%	160	44.4%	195	57.4%	213	54.5%
SCHOOL	Public	less than 10	See footnote	No Data	No Data	less than 10	See footnote												
SCHOOL	Public	less than 10	See footnote																
SCHOOL	Public	50	10.0%	34	29.4%	73	46.6%	66	68.2%	49	63.3%	53	56.6%	67	53.7%	77	62.4%	66	51.5%
SCHOOL	Public	176	64.2%	129	65.1%	153	66.7%	151	56.3%	136	69.9%	154	74.0%	170	64.1%	208	61.5%	200	76.0%
SCHOOL	Public	15	66.7%	29	65.5%	11	63.6%	18	72.2%	28	64.3%	28	75.0%	27	70.4%	24	58.0%	23	69.6%
Alternative High Schools	Alternative	No Data	No Data	less than 10	See footnote	10	40.0%	less than 10	See footnote	12	58.3%	26	23.1%						
SCHOOL	Alternative	less than 10	See footnote																
SCHOOL	Alternative	less than 10	See footnote	No Data	No Data	No Data	No Data												
SCHOOL	Alternative	No Data	No Data	less than 10	See footnote	less than 10	See footnote												
SCHOOL	Alternative	No Data	No Data	less than 10	See footnote	less than 10	See footnote												
SCHOOL	Alternative	22	72.7%	28	67.9%	17	52.9%	32	71.9%	28	82.1%	17	76.5%	12	58.3%	27	74.1%	20	45.0%
SCHOOL	Alternative	less than 10	See footnote	12	58.3%	less than 10	See footnote	11	45.5%	No Data	No Data								
SCHOOL	Alternative	less than 10	See footnote	23	82.6%	15	80.0%	21	90.5%	16	75.0%	17	76.5%	11	90.9%	22	65.2%	21	81.0%
SCHOOL	Alternative	No Data	No Data	less than 10	See footnote	less than 10	See footnote												
SCHOOL	Alternative	16	93.8%	14	85.7%	11	72.7%	12	91.7%	24	79.2%	16	77.8%	11	81.8%	20	90.0%	22	81.8%
SCHOOL	Alternative	No Data	No Data	less than 10	See footnote	less than 10	See footnote												
SCHOOL	Alternative	No Data	No Data	less than 10	See footnote	No Data	No Data												



## Appendix C-1-1 New Mexico's Statewide Longitudinal Data System



*New Mexico Achieving Collaborative Heights In Education Via e-Systems (NM-ACHIEVeS):* NM-ACHIEVeS is the statewide initiative to reform the use of education and economic data to inform policy and improve instruction for New Mexico's unique multi-cultural population. NM ACHIEVeS is designed to produce an integrated state longitudinal data system that will inform and guide innovative education reform by linking student and teacher data across time, pre-kindergarten through postsecondary and into the workforce. The goal of New Mexico's state longitudinal data system is to ensure dynamic use of data to inform policy and improve instruction for students and the workforce and to tie to the state's education reform goals, which have been developed with input from multiple state agencies, institutions of education, business and industry. NM-ACHIEVeS, New Mexico's longitudinal data system, consists of six key elements. A brief discussion of each is provided below:

- ***Student and Teacher Accountability Reporting System (STARS):*** STARS is New Mexico's K-12 Data Warehouse. The system creates the State Student Unique ID

that stays with the student through his/her academic career; attaches all demographic, course enrollment, attendance, discipline, program and assessment data; and serves as the foundation for calculating not only adequate yearly progress but disbursements of the state funding formula. STARS is also the central repository for all school and district-level staff data. Starting with the staff identifier, the system collects, stores and reports all teacher-related data, including demographic information, endorsements, professional development and course assignments. The Data Warehouse is supported by a series of reports delivering data validation and exception reporting to authorized users. Users have access to data and OLAP (Online analytical processing) cubes, detailing over 2,000 characteristics. District-level reports and report cards are developed through STARS, as is all federal reporting (EDEN/EdFacts).

- ***Data Editing and Reporting (DEAR):*** The DEAR system is the data warehouse that stores, collects and reports postsecondary data related to higher education in New Mexico. The system can provide summary information by institution and student enrollment in the three school terms (summer, fall, spring) of the academic year. Information is used to determine completion rates, degrees completed and other metrics. The DEAR system stores both a student's social security number and unique ID (provided through respective institutes of higher education student information systems – predominately Banner). The DEAR system serves as the foundation for institutional research and federal reporting of post-secondary data.
- ***Education User Interface (EUI):*** New Mexico's EUI is the Microsoft SharePoint based portal that provides the foundation for delivering New Mexico education data to all authorized stakeholders. The portal consists of a forms-based authentication application that administers role-based security to assign access to multiple levels, including state, LEA, institute of higher education, location, staff, student, parent and community users. The primary purpose of the EUI is to provide the framework to deliver timely and relevant content directly to the user's desktop.
- ***Carve your Path (CYP):*** Carve your Path is New Mexico's first agency collaborative application that utilizes the data repository of the state's education data systems (STARS, DEARS and New Mexico Department of Work Force Solutions) to assist

New Mexico in preparing students for college and career readiness. Carve Your Path provides tools to assist all students (P-20) in planning their educational journey and prepare for their careers after school. Utilizing personality and skill assessment tools, the user can easily research, analyze and select an ideal career path based on national and New Mexico career clusters. The system then develops the education work plan necessary to complete the chosen path. Utilizing the data captured in the state's education data system, the Carve Your Path Gap Analysis Tool tracks the user's actual performance, compares it to the users' development plan and highlights disconnects to alert the student where attention and changed action is needed. Carve Your Path's ePortfolio provides a centralized repository, and toolsets allow the user to store samples of academic work and extracurricular experiences.

- ***Educator Accountability Reporting System (EARS)***: The New Mexico Educator Accountability Reporting System (EARS) is a unified system that measures how well colleges, schools or departments of education are performing in the preparation of educators (teachers, administrators and counselors). The annual statewide teacher education accountability report complies with Section 22-10A-19.2 NMSA 1978 by including: 1) demographic and performance characteristics of teacher education students at New Mexico Public Education Department-approved institutions, 2) financial measures and other accountability measures and 3) institutional evaluation plans based upon high performance objectives. The statute requires the data from the EARS to be reported into STARS; implementation will occur when it becomes technically feasible.

The EARS reporting elements include demographic data on program participants, standards for teacher preparation program entry and exit, number of hours required for field placement and student teaching, description of placement practices, participants' academic preparedness (reflected by GPA, ACT and New Mexico Teacher Assessment scores for teacher candidates in traditional and alternative licensure programs), number and types of degrees awarded and number and percentage of candidates completing programs. EARS also includes several financial measures, including lowest and highest compensation (Salary + Benefits) of full-time

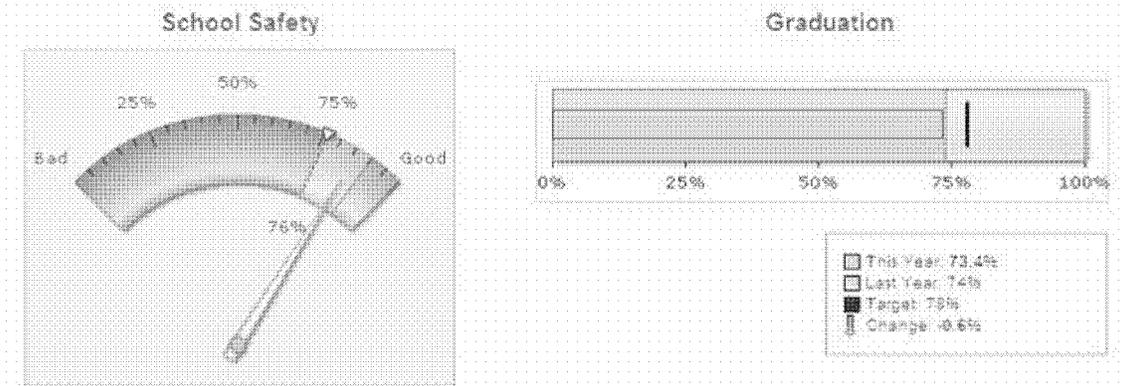
and part-time faculty, expenditures and cost per student credit hour and program formula revenue compared to teacher preparation program budgets.

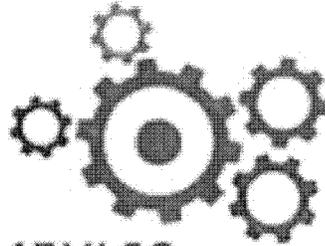
The central purpose of this report is to contribute to the state's efforts to establish and maintain a seamless pre-kindergarten through post-graduate system of education. Seamless educational reform efforts in New Mexico require systematic and comprehensive data to make appropriate policy decisions. Institutions of higher education, K-12 districts, the New Mexico Public Education Department, the New Mexico Higher Education Department, state legislators and the general public need to be informed regarding the quality of educator preparation. The EARS report is intended to help inform the decisions made by the Legislature and Governor as they work to improve education in New Mexico. The EARS report will also help education schools improve their practices in regard to: 1) preparing highly effective educators, 2) connecting curriculum and learning experiences to the needs of schools and 3) hiring terminally degreed faculty who have public school experience and remain active in service and research in the K-20 culture.

- ***Workforce Connection System and Labor Analysis, Statistics & Economic Research:*** The New Mexico Department of Workforce Solutions provides a multitude of labor market information for the state. The Workforce Connection System provides job openings by industry and location across New Mexico. The Labor Analysis, Statistics & Economic Research system provides labor market information regarding jobs in demand, training required to obtain those jobs, and their expected wages.

# Appendix C-2-1

## Data-Cation Dashboard Examples





NEW MEXICO  
**LEADERSHIP INSTITUTE**

Prepared in consultation with Fiscal Management Associates, LLC

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**Fiscal Management Associates, LLC**  
Professional Services to Not-for-Profit Organizations

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## II. Executive Summary

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### III. New Mexico Leadership Institute Genesis

In 2008, a report to the Legislative Education Study Committee entitled “Strong Leaders for New Mexico Schools” Senate Joint Memorial 3: Report and Recommendations (SJM3) identified the need for creating a collaborative set of relationships and cooperative infrastructure for strengthening school leadership in New Mexico. One of the six recommendations contained in the SJM3 report - *Recommendation 3: Develop and Implement the New Mexico Leadership Institute* called for a new entity to strengthen, prepare, monitor and professionally develop principals and other school leaders.

The *Action Steps* required for accomplishing Recommendation Three of SJM 3 were to establish five programs:

- Licensure For Aspiring New Principals  
Expansion of existing district/university partnerships leading to licensure to better meet district needs by adding curriculum developed with national leadership preparation programs
- Mentoring For New Principals  
Refining skills outlined in the Principal Evaluation System with training and mentoring
- Intensive Support For Principals In Schools In Need Of Improvement  
Developing the specific skills to work and lead in high need schools
- Professional Development For Aspiring Superintendents  
An intensive internship and mentoring program for aspiring superintendents
- Mentoring For New Superintendents  
Provide professional development for superintendents with less than three years experience

Under this mandate the New Mexico Leadership Institute (NMLI) was proposed and granted state government funding in early 2009. Under an agreement between the State of New Mexico Higher Education Department and Regents of the University of New Mexico (UNM), UNM became the fiscal agent for the NMLI. The agreement included a scope of work that is attached. (Appendix A - *Statement of Work / Scope of Work*)

#### IV. New Mexico Leadership Institute Goals

The New Mexico Leadership Institute will strive to provide extraordinary opportunities for principals, superintendents and other school leaders to achieve excellence in leadership to significantly positively influence the success of New Mexico’s schools.

NMLI will achieve this by:

1. Establishing an Executive Committee and scheduling an inaugural meeting to:
  - a. Approve an annual budget
  - b. Refine proposed annual goals
  - c. Obtain stable funding for NMLI
  - d. Develop a:
    - i. Mission statement
    - ii. Vision statement
    - iii. Theory of Practice
2. Establishing a NMLI Partnership Board with representation from the state’s Colleges of Business, Innovate-Educate New Mexico, governmental agencies, regional education cooperatives, superintendents, professional associations, and other key stakeholders.
3. Establish a system for communicating NMLI’s mission, vision and progress to the Executive Committee, the Partnership Board, the New Mexico Legislature, constituent groups, and the public.
4. Continue to provide services in each of the five SJM3 Programs of the NMLI through direct services and partnerships.
5. Design and implement a virtual portal to connect leaders, to provide virtual meeting opportunities and to deliver professional development.
6. Develop and implement an evaluation process for all NMLI programs and lines of service.

The next set of priorities will:

7. Establish partnerships with the Educational Leadership Institutes in Arkansas, Georgia and New York to define current best practices for the recruitment, preparation, mentoring, evaluation, and support of school principals and other educational leaders.
8. Intensively train and support school districts and lead principals to plan and manage leader succession, progression, and performance to ensure local leader quality and supply.
9. Provide financial training for principals and superintendents to better engage in fraud prevention and detection, efficiency studies and robust accountability and transparency measures to protect public funds.
10. Investigate and implement the most appropriate not-for-profit corporate structure to maximize the benefits of tax deductible contributions to NMLI.

#### Critical Milestones

	Q2 – 2010	Q3 – 2010	Q4 - 2010	2011
Activity	#1	#2 & #5	#6	
				#3 & #4
				#7 #8 & #9

## V. New Mexico Leadership Institute Marketing Plan

NMLI must identify and market itself through its unique features – its partnerships between higher education institutions, public education and state agencies and its capacity to become a single point of entry for high quality professional development, mentoring and communication. NMLI can become the “Go To” resource for statewide access to a full complement of professional development services and activities, pedagogical think-tanks and innovation; networking opportunities through state and regional professional associations, state, regional and national advocacy initiatives and the champion for national funding opportunities that will increase resources directed towards improving New Mexico school outcomes.

NMLI will achieve this by a combination of face-to-face and virtual opportunities.

The NMLI online portal will provide access to resources and materials relating to a myriad of opportunities for principals, superintendents, mentors, charter school leaders, and school leadership teams all pursuing excellence in their chosen field.

In addition to its virtual presence, NMLI will provide opportunities for face-to-face learning and professional development throughout the state through its unique partnerships. NMLI will be perfectly positioned to respond quickly and effectively to urban and rural, native-American and immigrant populations because of the expediency with which NMLI can and will respond to ever changing real-world conditions.

The New Mexico Legislative Education Study Committee recommended that the NMLI needs to maximize the use of models of leadership development already in place at leading state and regional agencies. Through its partnerships with other state leadership initiatives (please see #7 above), NMLI will be uniquely placed to offer the best of existing models, with the expertise to recognize the need for modification, to meet the challenges of New Mexico’s public schools.

On March 19, 2010<sup>1</sup>, NMLI hosted a meeting of key stakeholders from across New Mexico to review the data collected from an online survey trying to identify key opportunities for NMLI. One of the survey questions asked if NMLI should implement a fee-for-serve for clients. The data suggested that this would prohibit NMLI clients from using the services. As NMLI will move away from this model, alternative revenue streams need to be identified.

In order to promote the purpose of NMLI, the Partnership Board (further described in Management and Organization) will shoulder a major responsibility for communicating the vision, mission, goals, opportunities and outcomes of the NMLI across the state and beyond. The Partnership Board will be an essential champion marketing NMLI, in addition to creating opportunities for unrestricted revenue streams to strengthen the financial structure of NMLI.

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<sup>1</sup> Please see Appendix B for full analysis

All of the marketing components require an essential element, namely, extraordinary leadership by its people, especially its Executive Director (E.D.). NMLI has been extremely successful in identifying the current E.D. who is qualified and experienced in both the fields of school principalship and district superintendency. However, one person is not a team and NMLI needs an excellent team. To ensure the balance of excellent professionalism without the resistance that can result from a highly structured organization, a Mintzberg-style *adhocracy* management structure is recommended. Using consultants instead of employees to implement NMLI programs and services, NMLI can reshape, redirect and re-invent itself in response to ever changing market conditions. This will also reduce the overhead costs to ensure a maximum of resources allocated to programmatic activity. It will be essential for all consultants to report directly to the E.D. so that all five programs work well together and lessons learned are shared. Each consultant will be an expert in the field in which they are working and their ability to be used “as and when” required will maximize the opportunity for cutting-edge knowledge sharing.

## VI. New Mexico Leadership Institute Operational Plan

As a primary component of NMLI's goals, the continued provision of services in each of the five SJM3 Programs through direct services and partnerships will form the basis of the operating plan.

To date, NMLI has worked closely with 21 of New Mexico's school districts plus several partner agencies, charter schools and state-supported schools to build the capacity for principal mentoring. NMLI has provided mentor training by one of the nation's premier leadership development institutes to New Mexico principal mentors at no cost to the districts or schools. NMLI will continue to provide opportunities for principal mentorship in all of New Mexico's school districts and to support ongoing principal mentoring initiatives.

The partnership that NMLI has formed with the New Mexico Public Education Department (PED) provided "just in time" technical assistance for districts identified for the federal School Improvement Grants (SIG). NMLI created a website to house documents and archived webinars for use by the districts and PED staff. NMLI's E.D. and PED staff conducted research on best practices for turnaround schools and presented a myriad of resources for district use.

The New Mexico School Superintendents Association (NMSSA), in partnership with NMLI will begin the fifth year of the Superintendents' Transition and Mentoring Program (STAMP) for new superintendents. STAMP has had 66 new superintendents successfully complete the program with half of the members of the first STAMP cohort still in the same superintendent's position 5 years later.

NMSSA in partnership with NMLI began the Aspiring Superintendents Program (ASP) in August 2009 with 17 participants. One of the ASP participants recently accepted a superintendency in New Mexico. Sixteen applications for the 2010-2011 cohort have been received and are currently under review.

NMLI has worked closely with the faculty from the five higher education institutions that provide educational leadership programs as they have rewritten the five core courses for principal preparation. NMLI hosted a webinar to present the revised course drafts to the superintendents and then provided the documents along with a feedback request. Currently the superintendent's feedback is being incorporated into the course revisions for presentation to the deans of the colleges.

NMLI's ability to prepare, support and provide high quality professional development programs for new principals is the area for greatest growth. Amplifying the success of the models developed by the Arkansas Leadership Academy; New York City Leadership Academy and the Massachusetts Commonwealth School Leadership Project, NMLI can offer the spectrum of proven, successful models of leadership development available in the United States today. Through NMLI's unique position, proven models of leadership development, as validated by the Southern Regional Education Board, will be customized for all New Mexico's principals' professional development opportunities.

In order to build on this range of current activities, NMLI, embracing a flat, linear management structure, will need the following essential operational components:

Year 1:

- An Executive Director (with administrative and fiscal support)
- A Grant Writer/Development Capability
- A Programming Consultant

Year 2:

- An Executive Director (with administrative and fiscal support)
- A Grant Writer/Development Capability
- Programming Consultants – based on scale of programmatic activity

Year 3:

- An Executive Director (with administrative and fiscal support)
- A Grant Writer/Development Capability
- A Consultant for each of the SJM3 Programs (5)

To balance the operational needs of the organization with the revenue streams currently known and available to NMLI, the following net revenue position is projected:

- Year 1: Break even
- Year 2: A surplus – aimed at building an operating reserve
- Year 3: A surplus – aimed at extending the operational activities of NMLI

Without the capability for projecting longer-term stability of ending revenue surpluses, NMLI’s ability to continually redesign and implement excellent programming will be hampered.

From the March 19, 2010<sup>2</sup> meeting, an example of the resource allocation designed to meet the planned activities for NMLI looks like:

<b>SJM3 Program Allocation of Resources Based on Data From Survey Respondents</b>		
<b>Program 1</b>	Licensure For Aspiring New Principals	16.7%
<b>Program 2</b>	Mentoring For New Principals	24.5%
<b>Program 3</b>	Intensive Support For Principals In Schools In Need Of Improvement	23.9%
<b>Program 4</b>	Professional Development For Aspiring Superintendents	17.1%
<b>Program 5</b>	Mentoring For New Superintendents	17.8%

When taken over a 3-year operating plan, based on the priorities produced by the March 19<sup>3</sup> meeting, each program’s resource allocation could be broken down further to be:

<b>Program</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Licensure For Aspiring New Principals	28%	34%	38%
Mentoring For New Principals	46%	31%	23%
Intensive Support For Principals In Schools In Need Of Improvement	38%	33%	29%
Professional Development For Aspiring Superintendents	41%	35%	24%
Mentoring For New Superintendents	42%	34%	24%

<sup>2 2</sup> Please see Appendix B for full analysis

<sup>3 3</sup> Please see Appendix B for full analysis

The allocation of NMLI's E.D.'s time between revenue-development activities and program implementation will be a critical issue to be considered. As explained further in the Management and Operation section, the Executive Committee and Partnership Board's direction will steer the organization towards meeting the dual goals with shared responsibility with the E.D. for how both tasks are achieved.

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## VII. Management and Organization

As stated earlier, NMLI is fortunate to have a first-class E.D. but one person does not make a team. The E.D. needs to be supported by an administrative assistant and fiscal support from day one. In concert with the day-to-day operations, a grant-writer is essential to ensure financial resources are solicited and secured.

As NMLI develops its operating structure, the transition from a grant-writer role into a true development professional will be critical. The need to plan a mixed revenue structure of both restricted and unrestricted revenues for NMLI cannot be emphasized enough, particularly in its earliest days.

As stated in governing document (*Appendix A - Statement of Work / Scope of Work*), NMLI needs to convene an Executive Committee comprised representatives from:

- Each of the five state public universities with Schools of Education
- Each of the three state agencies (Public Education Department, Higher Education Department, the Office of Education Accountability of the Department of Finance and Administration)
- One public school district

In order to ensure genuine representation of school districts across the state, NMLI Executive Committee should consider increasing the number of school district representatives from one to five.

The priority for the Executive Committee will be to schedule an inaugural meeting to:

- Approve an annual budget
- Refine the proposed annual goals
- Obtain stable funding for NMLI
- Develop a:
  - Mission statement
  - Vision statement
  - Theory of Practice
- Develop an evaluation process of the E.D.

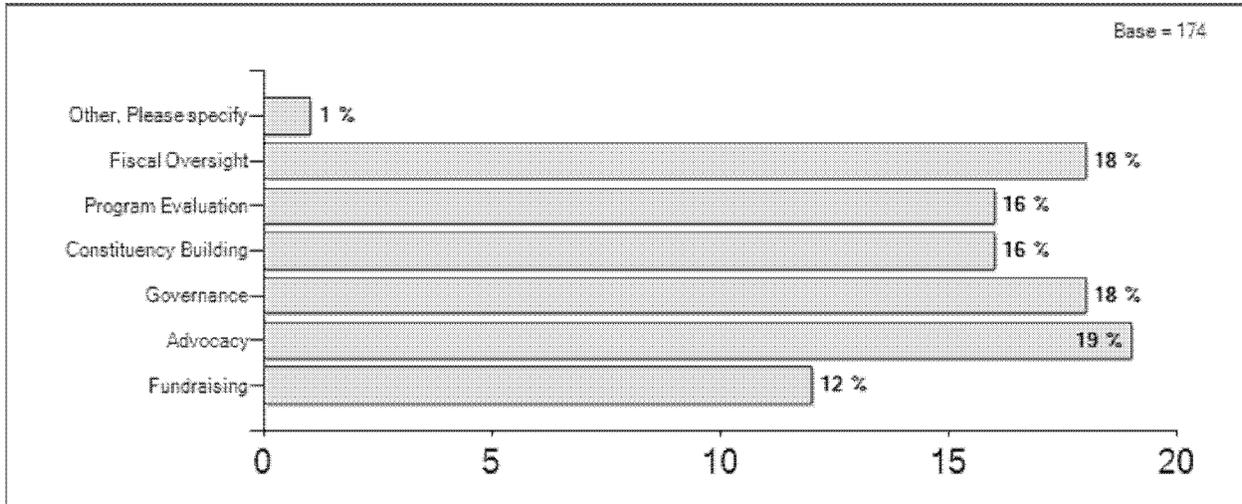
As further stated in governing document (*Appendix A - Statement of Work / Scope of Work*), NMLI needs to convene a Partnership Board comprised of representatives from:

- New Mexico Colleges of Business
- Business and industry
- Governmental agencies
- Regional education cooperatives
- Higher education institutions
- Professional associations
- Superintendent representatives
- Other key stakeholder groups

From the survey<sup>4</sup> that was conducted prior to the March 19, 2010 Business Plan Meeting, the Executive Committee’s focus should be directed towards:

- Advocacy
- Governance
- Fiscal oversight

*What would the role of the board of directors include?*



**Other, please specify**

- Evaluation of the E.D.
- Policy Development

NMLI’s unique strength comes from its ability to interact and partner with many entities. The leadership of the Executive Committee should reflect the state-wide nature of NMLI and incorporate representatives from various parts of the state.

Along with the benefits of NMLI currently being housed in UNM comes the requirement to include an 8% or 26% indirect cost rate to all NMLI’s grant and contract applications. The management of NMLI is encouraged to document an agreement with UNM in the provision of all back-office services.

As stated in the longer-term goals, NMLI’s Executive Committee and Partnership Board will explore the opportunities provided in forming a not-for-profit corporation able to solicit tax-deductible contributions from individuals and foundations. The combination of NMLI being a government instrumentality coupled with the ability to diversify NMLI’s revenue structure must be a key priority for the long-term sustainability of the organization.

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<sup>4</sup> Please see Appendix B for all Survey Responses

## VIII. Financial Plan

The three-year Revenue and Expense projection (below) shows consolidated numbers for NMLI's total operations and income and expenses. NMLI is still in the process of developing the full complement of financial statements – namely a FY10 Balance Sheet, Statement of Revenue and Expenses, Statement of Functional Expenses and a Cash Flow Statement.

### Income

There is a nonrecurring state allocation to the New Mexico Higher Education Department of \$200,000 for the NMLI and it expires June 30, 2010.

Grant Income of \$210,000 from the Wallace Foundation for the NMLI has been allocated.

### Expenses

#### Staff and Benefits

Compensation for the Executive Director, administrative support and a part-time bookkeeper is represented here. These expenses have been allocated across all sections of NMLI's programmatic, management and fundraising activities.

Benefits and Payroll Taxes apply only to full-time staff and include FICA, health insurance, unemployment insurance, workers' compensation, and taxes.

#### Program Consultants

To minimize the expenses associated with full-time staff, consultants are planned to be in:

Year 1: Principal Mentoring, Superintendent Mentoring and Aspiring Superintendents

Year 2: Principal Mentoring, Superintendent Mentoring and Aspiring Superintendents and Support for Principals in SINOI

Year 3: All five program areas

#### Program Supplies

This line item includes all supplies including marketing, website development and all print materials.

#### In Kind Services

The University of New Mexico serves as the NMLI's fiscal agent and therefore provides in kind services such as some accounting fees, audit fees, banking fees, insurance, rent, and basic telephone service.

Travel

This assumes travel within and outside New Mexico for the Executive Director at a combined cost of \$20,000/year in Year1.

Stakeholder relations

This is budgeted for travel, meetings, mailings, and materials related to key stakeholders

NMLI 3- Year Budget Projection

<b>NMLI 3-Year Revenue and Expense Budget</b>			
	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
	2009-2010*	2010-2011	2011-12
<b>Revenue</b>			
Unrestricted	\$210,000		
Restricted	\$200,000		
Earned			
<b>Total Revenue</b>	<b>\$410,000</b>		
<b>Expenses</b>			
Salaries, Fringe & Benefits	\$147,000	\$212,625	\$212,625
<b>OTPS</b>			
Programs	\$152,336	\$335,000	\$440,000
Supplies/Materials	\$19,800	\$25,000	\$30,000
Travel	\$20,000	\$30,000	\$35,000
Indirect (Max 15%)	\$70,864	\$90,394	\$107,644
<b>Total Expenses</b>	<b>\$410,000</b>	<b>\$693,019</b>	<b>\$825,269</b>
<b>Revenue Minus Expenses</b>		<b>(\$693,019)</b>	<b>(\$825,269)</b>
<b>Revenue Goal</b>	<b>Break Even</b>	<b>\$700,000</b>	<b>\$800,000</b>

\*The NMLI was not in existence for a full year.

It is quite clear that NMLI needs to secure ongoing funding without delay and with concerted effort in order to truly begin the work of developing excellence in leadership with the state of New Mexico.

**IX. Appendices**

DRAFT

## X. Appendix A

*AGREEMENT entered into by and between the State of New Mexico Higher Education Department, hereinafter referred to as the "DEPARTMENT," and Regents of the University of New Mexico, a public entity, hereinafter referred to as the "CONTRACTOR."*

### STATEMENT OF WORK

New Mexico Leadership Institute (NMLI)

Purpose: To perform operational, administrative and management responsibilities for the New Mexico Leadership Institute (NMLI), pursuant to an appropriation by the New Mexico Legislature for use during fiscal year 2010 (Chapter 124, Laws 2009, Section 5.63)

Scope of Work:

The CONTRACTOR shall form an Executive Committee to oversee the implementation of NMLI including representatives from each of the five state public universities with Schools of Education, representatives from three state agencies (Public Education Department, Higher Education Department, the Office of Education Accountability of the Department of Finance and Administration), and one member representing public school districts.

The CONTRACTOR shall establish a Partnership Board for the NMLI with representatives from the New Mexico Colleges of Business, business and industry, governmental agencies, regional education cooperatives, higher education institutions, professional associations, superintendent representatives, and other key stakeholder groups.

The CONTRACTOR shall develop a plan and budget - to be reviewed, amended if necessary and approved by the Executive Committee and the DEPARTMENT- to expend funds covered by this agreement to implement programs to strengthen educational leadership. The plan shall include educational leadership initiatives such as, but not limited to:

- Licensure for aspiring new principals,
- Mentoring for new principals,
- Intensive support for principals in schools in need of improvement,
- Professional development for aspiring superintendents, and
- Mentoring for new superintendents.

Upon approval by the Executive Committee, the CONTRACTOR shall implement the plan to expend the funds covered by this agreement, subject to amendment by the Executive Committee during implementation.

The CONTRACTOR shall seek additional sources of funding for educational leadership initiatives in partnership with the Executive Committee.

The CONTRACTOR shall provide an itemized expenditure report for the period ending June 30, 2010, and an annual program report summarizing the activities supported by these funds and outcomes achieved. These reports shall be provided to the DEPARTMENT on or before June 30, 2010.

The CONTRACTOR shall provide to the DEPARTMENT a copy any audit of NMLI along with the organization's management responses to any deficiencies and corrective actions noted in the audit.



**XI. Appendix B – Identification of Priorities from SJM3 for NMLI at the March 19, 2010 Meeting**

**To Support the New Mexico Leadership Institute’s Internal Development of Achieving Sustainable Programmatic Effectiveness**

The Senate Joint Memorial Report 3 set out five key programs for the New Mexico Leadership Initiative. These are:

- Licensure for Aspiring Principals
- Mentoring for New Principals
- Intensive Support for Principals for Schools in Need of Improvement
- Professional Develop for Aspiring Superintendents
- Mentoring for New Superintendents

The primary goal of the newly-established institute is to implement programs that together will “provide a comprehensive and cohesive framework for strengthening the identification, preparation, mentoring and professional Develop of school leaders.

**Tabulation of Results**

Following a 30-person, state-wide planning day held in Albuquerque, NM on Friday, March 19, 2010, the following priorities were identified by a cohort of educational leaders, stakeholders and community representatives.

<b>Licensure for Aspiring Principals (LAP)</b>
The outputs identified by the work group as necessary for developing the processes for Licensure of Aspiring Principals (LAP) are: LAP Priority 1: Develop Processes for Identifying Potential Candidates LAP Priority 2: Develop Process for Selecting and Recruiting Aspiring Principals LAP Priority 3: Develop a Residency Program for Aspiring Principals through Internship and Continued Training LAP Priority 4: Develop an Induction, Training and Mentoring Program for Newly Licensed Principals
<b>Mentoring for New Principals (MNP)</b>
The outputs identified by the work group as necessary for developing the processes for Mentoring for New Principals (MNP) are: MNP Priority 1: Develop a Pool of Master Principal Mentors Critical for the Provision of Mentoring for New Principals

MNP Priority 2: Develop a Funding Strategy Necessary for Strengthening and Extending Current Mentoring Initiatives  
MNP Priority 3a: Develop a State-wide Principal Evaluation Methodology in Terms of Deliverables and Expectations  
MNP Priority 3b: Develop a Review of State-wide Principal Curricula Towards Meeting the Principal Evaluation Process  
MNP Priority 4: Develop a Feasibility Study of a “School Leadership Team Initiative” for Evaluating Student Achievement  
MNP Priority 5: Develop a Assessment Tool Based on Strategies Employed by Successful Principals  
MNP Priority 6: Develop Crafted Mentoring Relationships Focused Around the Improvement of Shared Values  
MNP Priority 7: Develop Harmonization of State-wide Mentoring Standards  
MNP Priority 8: Develop a Range of IT-Solutions to Complement Mentoring and Training  
MNP Priority 9: Develop Professional Development Opportunities for 9-Month Contract Principals  
MNP Priority 10: Develop Shared Opportunities Between Superintendent and Principal Mentoring Programs  
MNP Priority 11: Develop Performance-Based Incentives/Reward Strategies for Principals

**Intensive Support for Principals for Schools in Need of Improvement (SINOI)**

ISPSINOI Priority 1: Develop Regional School Intervention Teams  
ISPSINOI Priority 2: Develop IT Systems to Track and Complement on SINOI Principal Performance  
ISPSINOI Priority 3: Develop SINOI “Redesign/Turn-Around Principal” Candidates

**Professional Develop for Aspiring Superintendents (PDAS)**

PDAS Priority 1: Develop Strategies for Strengthening and Expanding the Aspiring Superintendents’ Institute (ASI)  
PDAS Priority 2: Develop a Formative Assessment of Current ASI Cohort to Inform *PDAS Priority 1*  
PDAS Priority 3: Develop a Study Linking ASI Outputs and School/Student Outcomes  
PDAS Priority 4: Develop Trainings for School Boards on Best Practices of Working with Superintendents  
PDAS Priority 5: Develop a Feasibility Study on a State-wide Standardized Superintendents’ Evaluation Process

**Mentoring for New Superintendents (MNS)**

- MNS Priority 1: Develop Strategies for Creating a Longitudinal Study of Superintendents in NM
- MNS Priority 2: Develop Strategies for the Recruitment and Retention of Superintendents
- MNS Priority 3: Develop Strategies for School Boards and School Board Associations to Support New Superintendents
- MNS Priority 4: Develop Strategies for Networking Opportunities for New Superintendents
- MNS Priority 5: Develop Strategies for Creating Superintendent Regions Within the State
- MNS Priority 6: Develop Strategies for Negotiating Superintendents' Contracts with School Boards
- MNS Priority 7: Develop Strategies for Superintendents' to Access Regional Political Activities
- MNS Priority 8: Develop Strategies for Negotiating Superintendents' Roles Within Each Region/District
- MNS Priority 9: Develop Strategies for Ensuring Superintendents' Public Education Department Requirements
- MNS Priority 10: Develop Strategies for Ensuring Superintendents' Succession and Transition Planning

As stated previously, the following tables represents the output from the stakeholders, 30-person, state-wide planning day held in Albuquerque, NM on Friday, March 19, 2010. They, in no way, should be seen as recommendations by the NMLI.

For every priority shown in each program area, the work groups then deconstructed the priority into 5 distinct activities. These are the: Deliverable; Measure of Success; Timeline for Implementation, identification of the key players necessary for successful implementation and a priority that each deliverable would be assigned.

<b>Licensure for Aspiring Principals (LAP)</b>				
<b>LAP Priority 1: Develop Processes for Identifying Potential Candidates</b>				
Licensure for Aspiring Administrators				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
<ul style="list-style-type: none"> <li>• Revision of entry-level competencies</li> </ul>	<ul style="list-style-type: none"> <li>• Entry level competencies completed and adopted</li> </ul>	June 2011	School Districts Charter schools Universities PED HED NMLI NMCSA Unions	Number 1
<ul style="list-style-type: none"> <li>• Redesign of core course work by higher education institutions</li> </ul>	<ul style="list-style-type: none"> <li>• Core course work developed, approved and implemented</li> </ul>			
<ul style="list-style-type: none"> <li>• Design a career development and advancement model with benchmarks tied to professional development opportunities within Level 3 B Administrative Licensure</li> </ul>	<ul style="list-style-type: none"> <li>• Revision of the continuing licensure rule</li> </ul>	June 2012		
<b>LAP Priority 2: Develop Process for Selecting and Recruiting Aspiring Principals</b>				
Recruitment and Selection				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>

<ul style="list-style-type: none"> <li>• Determine incentives for encouraging aspiring principals for going into an ED-lead program – grow the available pool through strong recruitment processes (loan for service type program (HED) model)</li> <li>• Assist school districts to support future principal leaders (perhaps pay for tuition, part of the tuition, stipends – look at various models – help districts invest</li> <li>• Take advantage of a career ladder approach already in place with developing teacher leadership (e.g. instructional coaches)</li> <li>• Stringent selection process needed created a better pool of candidates</li> <li>• Specific selection criteria for teachers going into the principal preparation program</li> <li>• Design a selection model through collaboration and partnership between districts and higher education programs for preparing mentoring principals</li> </ul>	<ul style="list-style-type: none"> <li>• Sustained funding provided to enhance recruitment of future administrators through multiple sources</li> <li>• Funding sources identified for creating incentives to enter the principalship</li> <li>• Number of collaborative programs in place</li> <li>• Number of collaborative programs sustained</li> <li>• Number of collaborative models in rural districts- how have we helped the rural districts</li> </ul>	<p>Quantitative Measures:</p> <p>Baseline current picture</p> <p>Develop on-going tracking system</p> <p>Qualitative Measures:</p>	<p>School districts Charter schools Universities RECs PED HED NMLI National leadership professional organizations State Leadership Prof. Organizations Unions</p>	<p>Number 2</p>
<p><b>LAP Priority 2: Recruitment and Selection (cont'd)</b></p>				
<p><b>Deliverable</b></p>	<p><b>Measure</b></p>	<p><b>Timeline</b></p>	<p><b>Key Partners</b></p>	<p><b>Priority</b></p>
<ul style="list-style-type: none"> <li>• Design the preparation model in collaboration with the districts</li> <li>• Determine the consistent criteria for designing these models</li> <li>• Use existing partnerships to examining effective practices for sharing expertise</li> <li>• Use the current “collaboratives” in existence to accelerate infrastructure in all areas of the state – rural districts need to be considered as we build collaboration across districts and higher ed institutions</li> <li>• Development of intrinsic incentives to go from an “us” to “them” type mentality - measure school culture – use as a tool to encourage teacher leaders to go into the principalship</li> </ul>	<ul style="list-style-type: none"> <li>• Activation of universities and school district collaboration to design models that meet diverse areas/needs of the state</li> <li>• Number of: <ul style="list-style-type: none"> <li>○ school districts partnering with each other to share resources</li> <li>○ candidates coming from these collaborative efforts</li> <li>○ applications showing interest in principal preparation programs</li> <li>○ principals who continue in the principalship (baseline retention data)</li> <li>○ school districts participating</li> </ul> </li> </ul>	<p>Develop over a two – three year timeframe</p> <p>June 2012</p> <p>Ongoing formative assessment</p>	<p>School districts Charter schools Universities RECs PED HED NMLI National leadership professional organizations State Leadership Prof. Organizations Unions</p>	<p>Number 2</p>

	<p>in district to district cohorts</p> <ul style="list-style-type: none"> <li>○ Continuous training rule in place</li> <li>● Documentation of demonstrated evidence that effective implementation is in place</li> <li>● Track entry through exit for program completion and then entry into the principalship</li> <li>● Determine increased numbers of licensure</li> <li>● Numbers of Assess the working conditions of principals and identify the types of incentives that are non-monetary</li> <li>● Measure the need for soft benefits versus hard benefits of the job – identify those soft benefits through research project opportunities</li> <li>● Measure leadership behaviors over time to inform continuous improvement (future consideration) - Measure how behaviors are being transformed</li> <li>● Full immersion internships funded and fully implemented</li> <li>● Combined reporting between LEAs and IHEs to provide evidence of implementation</li> </ul>	June 2013		
<p><b>LAP Priority 3: Develop a Residency Program for Aspiring Principals through Internship and Continued Training</b></p>				

Deliverable	Measure	Timeline	Key Partners	Priority
<ul style="list-style-type: none"> <li>Observing to participating to really leading through this experience</li> <li>Needs to culminate in a true residency</li> <li>Use a cohort model – peer-to-peer learning – should cross LEA lines</li> <li>Include a mandate for continuous training</li> <li>Shared accountability needs to exist between LEAs (school districts) and Higher Education to support implementation</li> </ul>	<ul style="list-style-type: none"> <li>Full immersion internships funded and fully implemented</li> <li>Number of school districts participating in district to district cohorts</li> <li>Continuous training rule in place</li> <li>Combined reporting between LEAs and IHEs to provide evidence of implementation</li> </ul>	June 2013		
<b>LAP Priority 4: Develop an Induction, Training and Mentoring Program for Newly Licensed Principals</b>				
Deliverable	Measure	Timeline	Key Partners	Priority
<ul style="list-style-type: none"> <li>Consider a distributed leadership approach for training needs – help to develop a track history as to who can rise to the role of a principal – look at teacher leaders, identify potential and design a process for future principal development</li> <li>Position aspiring principals to be successful and continue to support them in the “survival stage”</li> <li>Provide cognitive coaching training opportunities</li> <li>Collective efficacy – relationship building techniques</li> <li>Learn and think differently from past practice – align to today’s learning environment needs</li> <li>Recommendation to Mentoring Principals Group: Assist principals to create learning teams</li> <li>Balance between higher education and school district theory to practice delivery</li> </ul>	<ul style="list-style-type: none"> <li>Numbers of principals who continue in the principalship (baseline retention data)</li> <li>Assess the working conditions of principals and identify the types of incentives that are non-monetary</li> <li>Measure the need for soft benefits versus hard benefits of the job – identify those soft benefits through research project opportunities</li> <li>Measure leadership behaviors over time to inform continuous improvement (future consideration) - Measure how behaviors are being transformed</li> </ul>	June 2013		

## Mentoring for New Principals (MNP)

### MNP Priority 1: Create A Formal Pool Of Master/Mentor Principals

Deliverable	Measure	Timeline	Key Partners	Priority
<ul style="list-style-type: none"> <li>Create a formal pool of Master/Mentor principals (Retired, and practicing principals) that have specific expertise and availability to support new and existing principals.</li> </ul>	<ul style="list-style-type: none"> <li>Through NMLI, PED, NMASSP, and others; numbers and level of expertise?</li> <li>Expertise in Student achievement score improvement; Examples such as: graduation rates, attendance rates, post graduation success.</li> </ul>	Yesterday...In progress but not fully implemented	NMASSP, NMCSA, NMASA, Northern Network, NMAESP, etc.	

### MNP Priority 2: Provide Fiscal Support

Deliverables	Measure	Timeline	Key Partners	Priority
<ul style="list-style-type: none"> <li>Fiscal budget to support</li> <li>Current associations for principals have expertise but need financial assistance to extend the services and programs. Mostly volunteers are used so quality is not as consistent or reliable.</li> <li>Stipends and pay for mentoring principals.</li> <li>Formula grants to support principal mentoring</li> <li>13 Grants</li> </ul>	Amount and sources	On-going activity working in collaboration with associations, state key holders, non-profits. grants	NMLI, PED, HED, Albuquerque Business Roundtable, grant opportunities, Alb. Chamber of Commerce, GEBES, ACI,	

### MNP Priority 3a: Develop a State-wide Principal Evaluation Methodology in Terms of Deliverables and Expectations

### MNP Priority 3b: Develop a Review of State-wide Principal Curricula Towards Meeting the Principal Evaluation Process

Deliverables	Measure	Timeline	Key Partners	Priority
<ul style="list-style-type: none"> <li>Course study does not reflect the realities of current job duties</li> </ul>	<ul style="list-style-type: none"> <li>Surveys of Professional</li> <li>Development Opportunities</li> </ul>	Fall 2010	NMASSP, NMCSA, NMASA, Northern	

<ul style="list-style-type: none"> <li>Define the work of principals and the expectations and deliverables: principal evaluations</li> </ul>			Network, NMAESP, etc.	
<b>MNP Priority 4: Develop a Feasibility Study of a “School Leadership Team Initiative” for Evaluating Student Achievement</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
<ul style="list-style-type: none"> <li>Level 3 teachers help principals on evaluation of student achievement or incorporate a team of leadership at schools</li> </ul>	<ul style="list-style-type: none"> <li>Survey of schools to see if leadership teams implemented</li> </ul>	Fall 2010	Principals, Superintendents, etc.	
<b>MNP Priority 5: Develop a Assessment Tool Based on Strategies Employed by Successful Principals</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
<ul style="list-style-type: none"> <li>Use evaluation system to help principals do their job; a pathway for success in terms of what good principals do.</li> </ul>	<ul style="list-style-type: none"> <li>Superintendent for Principals-Principal for Asst.</li> </ul>	Spring 2011	PED, Principals, Superintendents	
<b>MNP Priority 6: Develop Crafted Mentoring Relationships Focused Around the Improvement of Shared Values</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
<ul style="list-style-type: none"> <li>Creating a mentoring relationship with two people who want to do this mentoring...not always a relationship that is positive when mentorship is required. Isolation key for small districts to find the similar values to help each other grow and mentor.</li> </ul>	<ul style="list-style-type: none"> <li>Survey of Mentor and Mentee</li> </ul>	Spring 2011	NMLI	
<b>MNP Priority 7: Develop Harmonization of State-wide Mentoring Standards</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
<ul style="list-style-type: none"> <li>Collaboration and buy-in by stakeholders in creating mentorship opportunities that all districts promote.</li> </ul>	<ul style="list-style-type: none"> <li>All districts show evidence of participation in mentoring programs and opportunities</li> </ul>	Spring 2011	PED, HED, OEA	
<b>MNP Priority 8: Develop a Range of IT-Solutions to Complement Mentoring and Training</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>

• Bank of Technological research and tools for easy access	• Number of hits , measure of usage of resources, the range of resources available,	?	NMLI, PED, HED	
<b>MNP Priority 9: Develop Professional Development Opportunities for 9-Month Contract Principals</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
• Professional Development Opportunities for 9 month vs.12 month contract Principals	• Creation of new PD opportunities during the summer: June	?	PED, HED,NMLI  NMAESP, NMCSA, NMASA, Northern Network, NMAESP, etc.	
<b>MNP Priority 10: Develop Shared Opportunities Between Superintendent and Principal Mentoring Programs</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
• Superintendent mentoring should be linked and connected to principal support.				
<b>MNP Priority 11: Develop Performance-Based Incentives/Reward Strategies for Principals</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
• Incentive Programs for Principals - similar to Golden Apple Award				
<b>Intensive Support for Principals for Schools in Need of Improvement (SINOI)</b>				
<b>ISPSINOI Priority 1: Develop Regional School Intervention Teams</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
• NM Regional School Intervention Team (RSIT) Model • (Teams will provide mentoring, technical assistance and focused professional development. Services will be scaled and directed to developing capacity for long-	• Survey of available resources for use by NC RIT • Creation of an RSIT in the North Central region of NM as	NC regional Pilot in place by August 1,	UNM COE Northern Network Consultants	

term sustainability.	a pilot • Creation of RSITs in remaining regions	2010 Remaining RSITs established by Summer 2012	Re: Learning Others OEA PED RSS Mentor Principals	
<b>ISPSINOI Priority 2: Develop IT Systems to Track and Complement on SINOI Principal Performance</b>				
<b>Deliverables</b>	<b>Measure</b>	<b>Timeline</b>	<b>Partners</b>	
<ul style="list-style-type: none"> <li>Data System Development for collection, analyses and reporting of data related to SINOI Principal Performance</li> </ul>	<ul style="list-style-type: none"> <li>Software Selection and/or Development</li> <li>Leadership and Staff trained in data use and Data based decision making</li> <li>Data demonstrates SINOI school performance</li> <li>(3% growth per annum)</li> <li>Student Electronic Portfolio</li> <li>IHEs – Ed Lead Student</li> <li>School Sites – Individual Student Ports (Carve Your Path)</li> <li>Placement of UNM Doc Student in OEA</li> </ul>	Fall 2010 (Selection) Spring 2011 (Development)  Contingent upon selection or development (Fall 2010 or Spring 2011)  Performance increase measured between SY 09-10 and SY 10-11 and thereafter.  UNM is currently developing an application for COE students PED has established the Carve Your Path Pilot Fall 2010 or Spring 2011	APEX / NWEA UNM / Other IHES? PED OEA Consultants	
<b>ISPSINOI Priority 3: Develop SINOI “Redesign/Turn-Around Principal” Candidates</b>				
<b>Deliverables</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
<ul style="list-style-type: none"> <li>Identification of committed individuals willing to go into SINOI schools.</li> <li>Self-selection (creation of buy-in) versus appointment by central office</li> </ul>				

<b>Professional Develop for Aspiring Superintendents (PDAS)</b>				
<b>PDAS Priority 1: Develop Strategies for Strengthening and Expanding the Aspiring Superintendents' Institute (ASI)</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
1. Continue and expand "aspiring superintendent institute" to build bench for superintendent pool. <ul style="list-style-type: none"> <li>a. 17 in current cohort</li> <li>b. 15 each year 2010-2011 on</li> </ul>	Number of applicants to institute. <ul style="list-style-type: none"> <li>• Recommendations by sitting superintendents</li> </ul>	Current, ongoing.  Cohort II June 2010	NMLI, NMCSA, Superintend. Assn.  PSB Charter	
<b>PDAS Priority 2: Develop a Formative Assessment of Current ASI Cohort to Inform PDAS Priority 1</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	
<ul style="list-style-type: none"> <li>• Develop Assessment of current aspiring superintendent cohort:</li> <li>• Level of satisfaction with program</li> <li>• Level of satisfaction from superintendent who endorsed participation</li> <li>• Successful placement and duration as superintendent</li> </ul>	<ul style="list-style-type: none"> <li>• Formative assessment: data collected and</li> </ul>	June 2010	OEA  LESC  NMLI  PED	
<b>PDAS Priority 3: Develop a Study Linking ASI Outputs and School/Student Outcomes</b>				
<b>Deliverable</b>	<b>Measure</b>	<b>Timeline</b>	<b>Key Partners</b>	<b>Priority</b>
Design assessment to collect data long-term on success of cohort: Student outcomes Student graduation rates Student attendance	Data collected to determine how aspiring superintendent institute is impacting student achievement.	June 2011	OEA  NMLI  PED	Design assessment collect data long-term on success of cohort: Student outcomes Student graduation rates

				Student attendance
<b>PDAS Priority 4: Develop Trainings for School Boards on Best Practices of Working with Superintendents</b>				
Deliverable	Measure	Timeline	Key Partners	Priority
Board training on roles and expectations Best practices on how superintendent improves student achievement	Survey/post training reflection/assessment	ASAP	NMLI  Joe Guin  Superintend.  Charter Board member	
<b>PDAS Priority 5: Develop a Feasibility Study on a State-wide Standardized Superintendents' Evaluation Process</b>				
Deliverable	Measure	Timeline	Key Partners	Priority
<ul style="list-style-type: none"> <li>Development of a 360 skill evaluation tool for aspiring superintendents.</li> <li>Develop definition of successful superintendent.</li> </ul>	<p>Should there be a standard superintendent evaluation? It would guide the training of superintendents, boards, etc.</p> <p>How does one prepare a superintendent if there is no standard to prepare for?</p> <p>Could such a standard alleviate some of the board/superintendent conflict?</p>	Fall 2010	Outside commercial product:  PED NMLI NMCSA	
<b>Mentoring for New Superintendents (MNS)</b>				
<b>MNS Priority 1: Develop Strategies for Creating a Longitudinal Study of Superintendents in NM</b>				

Deliverable	Measure	Timeline	Key Partners	Priority
NMLI Should Survey new Superintendents for a needs assessment based on tasks done by planning group at the NMLI training on 3/19/10.	<ul style="list-style-type: none"> <li>Results of the survey</li> </ul>	First Priority  June 2010	NMLI and Superintendent Association	
<b>MNS Priority 2: Develop Strategies for the Recruitment and Retention of Superintendents</b>				
Deliverable	Measure	Timeline	Key Partners	
<ul style="list-style-type: none"> <li>New Mexico will develop and implement a more effective New Superintendent and Assistant Superintendent Mentoring Training and Program:               <ul style="list-style-type: none"> <li>Rich set of resources around specific content areas including; budget, school board relations, law etc.</li> <li>Strengthening STAMP program.</li> <li>Developing a wide variety of formal and informal mentoring relationships.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Participation in program</li> <li>Retention Issues</li> <li>Superintendent Effectiveness</li> <li>Content Based Resources</li> <li>STAMP program development</li> <li>Funding support</li> <li>Policy changes</li> </ul>	June 2011 or sooner	Superintendent Association, STAMP, School Boards Association, NMLI, Teacher Unions, Legislative Agencies, PED, community business organizations, Higher education, and NMCSA.	
<b>MNS Priority 3: Develop Strategies for School Boards and School Board Associations to Support New Superintendents</b>				
Deliverable	Measure	Timeline	Key Partners	
<ul style="list-style-type: none"> <li>New Mexico will develop a training program in collaboration with School Boards aimed at mentoring, supporting and retaining New Superintendents. This program should include:</li> <li>Proven strategies for clear communication between the Board and the Superintendent</li> <li>Clear expectations for participation by both Superintendent and the Board</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>Participation in program</li> <li>Retention Issues</li> <li>Superintendent Effectiveness</li> <li>Content Based Resources</li> <li>Board effectiveness</li> <li>Funding support</li> <li>Policy changes</li> </ul>	June 2011	Superintendent Association, STAMP, School Boards Association, NMLI, Teacher Unions, Legislative Agencies, PED, community business organizations, Higher education, and NMCSA.	
<b>MNS Priority 4: Develop Strategies for Networking Opportunities for New Superintendents</b>				

Deliverable	Measure	Timeline	Key Partners	
<ul style="list-style-type: none"> <li>NMLI should contact and work with the School Boards Association to gain input and feedback on how they can work together to support the Superintendent mentoring and support program.</li> </ul>		July 2011	Superintendent Association, STAMP, School Boards Association, NMLI, Teacher Unions, Legislative Agencies, PED, community business organizations, Higher education, and NMCSA.	
<b>MNS Priority 5: Develop Strategies for Creating Superintendent Regions Within the State</b>				
Deliverable	Measure	Timeline	Key Partners	
<ul style="list-style-type: none"> <li>New Mexico will develop an effective initiative aimed at retaining effective Superintendents:</li> <li>Develop a good definition of Superintendent effectiveness</li> <li>Explore initiatives aimed at reducing the excessive turnover of superintendents</li> </ul>		July 2011	Superintendent Association, STAMP, School Boards Association, NMLI, Teacher Unions, Legislative Agencies, PED, community business organizations, Higher education, and NMCSA.	
<b>MNS Priority 6: Develop Strategies for Negotiating Superintendents' Contracts with School Boards</b>				
Deliverable	Measure	Timeline	Key Partners	Priority
	•			
<b>MNS Priority 7: Develop Strategies for Superintendents' to Access Regional Political Activities</b>				
Deliverable	Measure	Timeline	Key Partners	Priority
	•			
<b>MNS Priority 8: Develop Strategies for Negotiating Superintendents' Roles Within Each Region/District</b>				
Deliverable	Measure	Timeline	Key Partners	Priority
	•			
<b>MNS Priority 9: Develop Strategies for Ensuring Superintendents' Public Education Department Requirements</b>				

Deliverable	Measure	Timeline	Key Partners	Priority
	•			
<b>MNS Priority 10: Develop Strategies for Ensuring Superintendents' Succession and Transition Planning</b>				

**Additional thoughts:**

Include some charter/private school leaders in the cohort of aspiring superintendents. They need the same support and have something to offer.

Screen applicants to aspiring superintendent

But if the people within the system are deciding who enters the system, are we perpetuating the same?

Create definition of a successful superintendent. What are the characteristics?

How does NM define what success is? Is it the old paradigm or is it transformational leadership?

Continue/build on to/enhance aspiring superintendent institute

Evaluate success of cohort I.

Develop evaluation tool that includes student performance, placement of superintendents, survey of their comments on success, challenge

Define what it means to hold teachers and principals accountable in a district. What does it mean to achieve, including the 40% of the district teachers who do not teach core subjects. (It's 60% if you don't count science a core subject.)

How does an aspiring superintendent find her/his weakness?

Do a 360 review/personality profile, Val-Ed. Survey to learn her/his strengths and weaknesses.

Requirement for board members to participate in training about superintendence – leadership – what they want in a school leader.

Is there a way that aspiring superintendents can do a self-evaluation of their systems-thinking

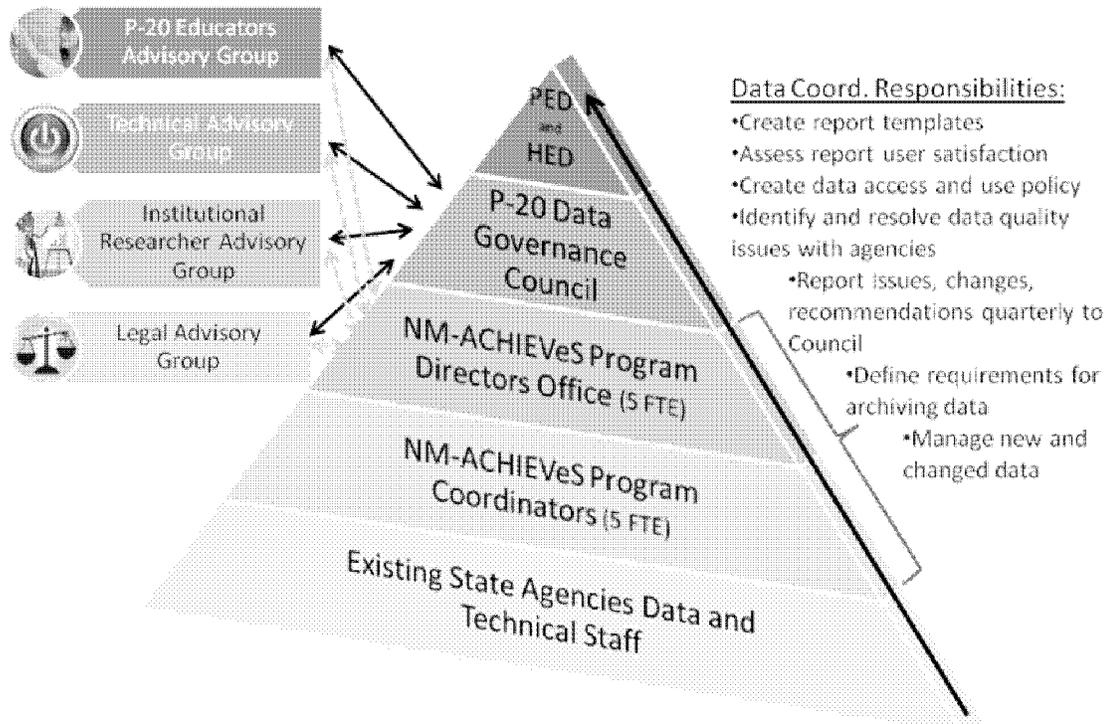
Doug just did his evaluation with the board

In the recruitment process, develop some sort of assessment that could be continuum of what a superintendent needs to be successful.

## Appendix C-3-1

### NM-ACHIEVeS Data Governance Structure

#### NM-ACHIEVeS Data Governance Structure



## **Appendix D-1-1**

### **Alternative Licensure Statutes and Regulations for Teachers**

New Mexico statute 22-10A-11.1 NMSA and regulation 6.60.3.8 NMAC provide alternative licensure for people with at least a baccalaureate degree to become teachers. The three options for alternative teacher licensure are:

**If you have five years of post-secondary teaching experience, follow these steps:**

1. Apply for an Internship License from the Public Education Department
2. Get a teaching job with a district or charter school
3. Complete one year of successful teaching
4. Pass three New Mexico Teachers Assessments and take one course on the teaching of reading
5. Demonstrate department-approved competencies for issuance of a Level II License (\$45,000 minimum salary for the second year)

**If you have six years of post-secondary teaching experience, follow these steps:**

1. Apply for an Internship License from the Public Education Department
2. Get a teaching job with a district or charter school
3. Complete one year of successful teaching
4. Pass three New Mexico Teachers Assessments and take one course on the teaching of reading
5. Demonstrate department-approved competencies for issuance of a Level III License (\$50,000 minimum salary for the second year)

**If you do not have at least five years of post-secondary teaching experience, these three avenues are available.**

- 1. The Fast-track Alternative Licensure Program**
2. Enroll in an Alternative Licensure Program and receive an Internship License (currently offered at more than a dozen colleges and universities).
3. Get a teaching job with a district or charter school

4. For a license for teaching in high school, compete the 18-credit Alternative Licensure Program (see attachment) and pass three New Mexico Teachers Assessments

## **2. Alternative Licensure Portfolio Pathway**

1. Complete a portfolio that demonstrates to the reviewers of your online portfolio submission how you meet the requirements for a Level I license
2. Pass three credits of reading courses
3. Pass three New Mexico Teachers Assessments
4. Get a teaching job with a district or charter school

## **3. Complete a Post-Bachelor's Licensure Program**

Available at many universities, most of these programs offer courses that lead to both a teaching license and a master's degree.

## Appendix D-1-2

### Alternative Licensure Statutes and Regulations for School Administrators

New Mexico statutes (22-10A-11.1 and 22-10A-11.3 NMSA) and regulations (6.60.3.9 and 6.62.2 NMAC) provide alternative and provisional pathways for teachers and counselors to be licensed as school leaders. The four options for alternative leader licensure are:

- a. Candidates can obtain a Provisional Leader (Administrator) License if they meet the following criteria.
  - 1) Completed three years of Level 2 teaching or hold a level 3A teaching license.
  - 2) If they hold a Level 2A teaching license, they must successfully complete the Professional Development Dossier (PDD) for advancement to Level 3A. Obtaining their PDD may occur while they are holding the Provisional Leader License.
  - 3) Hold a post-baccalaureate degree or National Board Certification.
  - 4) Are enrolled in a PED approved induction and mentoring program for school administration.
  - 5) Are accepted into a PED approved preparation program for school administration.
- b. Candidates can obtain a Provisional Leader (Administrator) License if they are a school counselor who meets criteria 2-5 above, hold a Level 2 teaching license and for four years have held a Level 3 school counselors license while serving as a teacher or school counselor.
- c. Option Three is an Alternative Leader (Administrator) License for individuals with five or more years of post secondary teaching or six or more years of post secondary administrative experience and hold either MA or doctorate. Administrators pursuing this alternative path must complete an internship of at least one full school year while holding an administrator internship license and working as an administrator.
- d. District-based leadership programs are permitted under NM statutes and regulations.

### Appendix D-1-3

#### Alternative Licensure Programs for Teachers and Administrators

##### New Mexico Initial Teaching Licenses, 2008-2009 Academic Year

	Alternative Programs	Alternative Pathway	Traditional Pathway	Total
<b>Research Universities</b>				
New Mexico State University	K-8,7- 12,SpEd	8	199	207
University of New Mexico	K-8,7- 12,SpEd	21	394	415
<b>Comprehensive Universities &amp; Colleges</b>				
Eastern New Mexico University	K-8,7- 12,SpEd	7	105	112
New Mexico Highlands University	None	0	105	105
New Mexico Institute Mining & Technology	7-12	3	0	3
Northern New Mexico College	K-8,7- 12,SpEd	12	7	19
Western New Mexico University	K-8,7- 12,SpEd	11	48	59
<b>Community Colleges</b>				
Central New Mexico Community College	K-8,7- 12,SpEd	24	0	24
San Juan College	K-8,7- 12,SpEd	16	0	16
Santa Fe Community College	K-8,7- 12,SpEd	43	0	43
Clovis Community College	K-8,7- 12,SpEd	9	0	9
<b>Private Universities &amp; Colleges</b>				
College of Santa Fe	K-8,7- 12,SpEd	12	48	60
University of the Southwest	None	0	24	24
Wayland Baptist University	None	0	3	3
University of Phoenix	K-8,7- 12,SpEd	2	15	17
Online Portfolio Alternative Licensure ( <i>OPAL</i> )		48	-	48
Post-Secondary Instructors (data not available)				
<b>Totals</b>		<b>216 (19%)</b>	<b>949</b>	<b>1164</b>

**New Mexico Leader (Administrator) Licenses Granted in 2008-2009 Academic Year**

	Alternative	Provisional Pathway	Traditional Pathway	Total
New Mexico State University		*	56	56
University of New Mexico		*	86	86
Eastern New Mexico University		*	32	32
New Mexico Highlands University		*	42	42
Western New Mexico University		*	21	21
Private universities			8	8
Post-Secondary Administrator	7			7
District-Based Programs (in planning stage)				0
			<b>Totals</b>	<b>252</b>

\* Program just initiated. No completers yet.



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## NEWS RELEASE

For Immediate Release: April 26, 2010

### **Education Secretary García and Race to the Top Design Team Announce Assurances In Tying Student Growth to Teacher/Principal Evaluation *Plans will build on Three-Tier Licensure System***

**Santa Fe** – Education Secretary Veronica C. García and the Race to the Top Design Team today announced assurances to the education community regarding the development of plans to expand New Mexico’s Three-tier Licensure System to include stronger evaluation based on student growth.

“New Mexico is committed to a fair system that uses multiple measures of student growth, strong assessments, and includes professional and leadership development for teacher improvement. Today we established assurances that will allow broad commitment and support to move forward with the development of a model that builds on our existing three-tier evaluation system,” said Secretary García.

Sharon Morgan, President of New Mexico National Education Association said, “The work of this team recognizes our agreement that student learning matters, as that is what teachers are here for. At the same time, it recognizes that our students and teachers are more than a test score.”

Christine Trujillo, President of New Mexico America Federation of Teachers said, “The initial apprehension I had about the Race to the Top design process was immediately diffused as the committee started its construction of the plan. The opportunity to clarify, debate, collaborate, and work as a team to ensure that teacher voices are part of the process is critical. Today’s work succeeded in that.”

In partnership, the Race to the Top Design Team specifically building the section on tying student growth to teacher/principal evaluation announced the following assurances to the education community:

- 1) New Mexico will strengthen the link between teacher/principal evaluation and student growth making it a significant factor in the annual evaluation process currently included in the three-tier licensure system for all teachers in all content areas.
- 2) While significant, student growth will not be the only factor in the teacher and principal evaluation system.
- 3) The New Mexico Public Education Department is participating in the National Center for Education & Economy (NCEE) and Smarter Balance consortia to transition to Common Core Standards and transition to newer, fewer, and better assessments of student growth. Under this commitment to transition, the current standards-based assessment will not be the tool used to measure student growth.

- a. New assessments will be grounded in a thoughtfully integrated learning system of standards, curriculum, assessment, instruction, and teacher development.
  - b. Practitioners (teachers and principals) and other stakeholders (parents, community, school boards, legislators, etc.) will be included in the evaluation system design.
  - c. Practitioners will be included in student assessment design.
  - d. Participation in the Smarter Balance consortium is a commitment to the transition to multiple measures of student growth and teacher impact including but not limited to:
    - i. Assessments conducted at multiple points in time
    - ii. Formative assessments
    - iii. Summative assessments
    - iv. Actual student work
- 4) Adoption and implementation of the common core standards, new assessments, and change to the three-tier teacher evaluation system is anticipated to take between 18 and 36 months.
- 5) The Race to the Top Grant will request funds to provide professional development and leadership development throughout the transitions to common core standards, newly aligned assessments, and expanded teacher evaluations.

**Members of the Race to the Top Design Team for section D-2 are:**

**Veronica C. García, NM Education Secretary; Christine Trujillo, President AFT-NM; Charles Bowyer, Executive Director NEA-NM; Ellen Bernstein, President ATF; Douglas Wine, Principal East Mountain High School; Andy Lotrich, AFT-NM; Gerry Harge, Transition Team Office of African American Affairs; Linda Sink, Associate Superintendent APS; Sylvia Wittels, Educational Volunteer and Concerned Citizen; Claire Dudley, Office of the Lt. Governor; Alton Autrey, Principal Grants High School; Sharon Morgan, President NEA-NM; Lorenzo García, APS School Board Member and Youth Development Inc. Staff; Sheila Hyde, Assistant Secretary Quality Assurance and Systems Integration, Public Education Department; Phil Baca, Licensure Bureau Chief, Public Education Department.**

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## Appendix D-2-2

### Teacher and Principal Competencies

New Mexico's Three-Tiered Licensure and Teacher Evaluation System requires LEAs and the Public Education Department to hold teachers accountable for student learning through nine rigorous teaching competency areas, as follows:

1. The teacher accurately demonstrates knowledge of the content area and approved curriculum.
2. The teacher appropriately utilizes a variety of teaching methods and resources for each area taught.
3. The teacher communicates with and obtains feedback from students in a manner that enhances student learning and understanding.
4. The teacher comprehends the principles of student growth, development and learning, and applies them appropriately.
5. The teacher effectively utilizes student assessment techniques and procedures.
6. The teacher manages the educational setting in a manner that promotes positive student behavior and a safe and healthy environment.
7. The teacher recognizes student diversity and creates an atmosphere conducive to the promotion of positive student involvement and self-concept.
8. The teacher demonstrates a willingness to examine and implement change, as appropriate.
9. The teacher works productively with colleagues, parents and community members.

All principals in New Mexico are required to be proficient in four broad domains: Instructional Leadership, Communication, Professional Development and Operations Management. Proficiency in Domain Five – Scope of Responsibility in Secondary Schools -is required of secondary principals serving middle and/or high schools. Principals and assistant principals are held accountable for teacher success and student learning by demonstrating competency in the following areas:

**Competency 1:** The principal promotes the success of all students by maintaining a culture that supports student achievement, high-quality instruction and professional development to meet the diverse learning needs of the school community.

**Competency 2:** The principal uses communication and relationship-building skills to engage the larger community in the knowledge of and advocacy for equity in meeting the diverse needs of the school community.

**Competency 3:** The principal organizes and coordinates ongoing professional learning opportunities that are aligned with the New Mexico Professional Development Framework and supports the diverse learning needs of the school community.

**Competency 4:** The principal manages the school campus, budget and daily operations to equitably meet the diverse learning needs of the school community.

**Competency 5:** The middle school and high school principal develop supports, encourages and supervises programs that lead to increased student attendance, achievement and graduation rates resulting in college readiness and work skills to meet the diverse needs of the community.

## ***New Mexico Project 2012***

### **Chapter 1. Producing More K-12 Math and Science Teachers with Better Content and Pedagogical Preparation**

#### **Abstract**

Unless action is taken, New Mexico will soon be facing a serious shortage of high-school math and science teachers. The situation is most critical in math, where the addition of a required fourth year course for high school graduation will substantially aggravate an already tenuous situation. In both math and science, New Mexico is not graduating enough teachers each year to account for normal attrition.

More must be done to equip New Mexico's K-12 math and science teachers with the content knowledge, pedagogical skill, confidence and enthusiasm necessary to teach these subjects effectively. This is a critical issue, as many student attitudes toward math and science are formed in elementary school years and must be nurtured in middle school for success in high school.

#### **1.1. Statement of the Issues**

We are concerned in this Chapter principally with two issues: (1) the preparation of a sufficient number of qualified, licensed, high school math and science teachers to supply New Mexico's increasing need; and (2) the adequacy of current teacher preparation practices.

In the 2007-2008 academic year New Mexico's public teacher preparation institutions prepared 26 high school math teachers and 27 high school science teachers in their regular programs. Also, 27 math-endorsed high school teachers and 30 science-endorsed high school teachers were teaching on Internship Licenses while in Alternative Licensure Programs (see Appendix 1.1). Given that there were a total of over 1100 teachers of high school math (with about 900 fully licensed endorsed) and over 900 teachers of high school science (with about 700 of them fully licensed and endorsed), it is clear that we need to increase the production of high school math and science teachers. The number we are currently producing does not even replace teachers leaving through normal attrition (e.g. because of retirement), let alone add those necessary to deal with increased curricular demands.<sup>1</sup> Other recruitment approaches should be explored, such as attracting high school math and science teachers from out of state, inducing more retired teachers in New Mexico back into service, and attracting STEM professionals into the teaching ranks.

There are also concerns about the adequacy of current teacher preparation practices. The *Math and Science Town Hall Final Report*<sup>2</sup> recommended that "Colleges and universities ... increase the rigor of mathematics and science requirements for teachers entering teacher education programs and licensure by increasing the number of credit hour requirements and/or the quality of mathematics and science courses ..." Entry-level competencies for math and science teachers have not been revised for over ten years. During that time both the Conference Board of Mathematical Sciences (CBMS)<sup>3</sup> and the National Science Teachers

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<sup>1</sup> Beginning in 2010, New Mexico students will need four mathematics courses rather than three to graduate from high school.

<sup>2</sup> [web.nmsu.edu/~pscott/Town\\_Hall\\_Final\\_Report.pdf](http://web.nmsu.edu/~pscott/Town_Hall_Final_Report.pdf)

<sup>3</sup> *Mathematical Education of Teachers*, [www.cbmsweb.org/MET\\_Document/](http://www.cbmsweb.org/MET_Document/)

Association (NSTA)<sup>4</sup> have made important suggestions for improving the initial preparation of math and science teachers.

New Mexico's K-12 math and science teachers choose from 6 different teaching licenses:

- Elementary Education, Grades K-8
- Middle Level Education, Grades 5-9
- Secondary Education, Grades 7-12
- PreK-12 Specialty License
- Special Education PreK-12
- Early Childhood Education, Birth-Grade 3

In addition, to teach math or science in grades 6-8, teachers must fulfill requirements to be "Highly Qualified." Teachers with Secondary Education, PreK-12 Specialty and Special Education licenses must be "Endorsed" in the content area. The six most common pathways to those teaching licenses<sup>5</sup> are:

- Traditional Undergraduate Licensure Program
- Master's + Licensure Program
- Alternative Licensure Program
- Pathway Alternative Licensure
- Portfolio Pathway
- District Alternative Licensure Pathway

For initial licensure, the requirements to be "Highly Qualified" in grades 6-8 math or science are 24 credit hours and passing the *New Mexico Content Knowledge Assessment*<sup>6</sup> in middle level math or science. To be "Endorsed" in grades 7-12 on an initial license, the requirements are 24 credit hours (12 of which must be in upper division or graduate courses) and passing the *New Mexico Content Knowledge Assessment* in secondary level math or science. With an appropriate initial license, one can become "Highly Qualified" or "Endorsed" in an area with either 24 credit hours or passage of the appropriate *Content Knowledge Assessment*. All teachers obtaining a "K-8" or "Birth to Grade 3" license take 6 credits of math and 12 credits of science.

### **1.1.1. General Principles of Pre-Service Teacher Education**

There are four pillars to an ideal pre-service preparation program:

1. Development of strong content knowledge for the grade level to be taught.
2. Development of a deep knowledge of how children learn.
3. Early classroom experiences with strong teachers.
4. A cohort structure that builds a community amongst prospective teachers in order to support each other through a rigorous but rewarding program of study.

There are many pathways that teachers take to become certified to teach mathematics and science. In elementary school, teachers are generalists who teach all subjects, while middle and

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<sup>4</sup> *Standards for Science Teacher Preparation*, [www.nsta.org/about/positions/preparation.aspx](http://www.nsta.org/about/positions/preparation.aspx)

<sup>5</sup> [www.ped.state.nm.us/Licensure/](http://www.ped.state.nm.us/Licensure/) or [www.teachnm.org](http://www.teachnm.org)

<sup>6</sup> [www.nmta.nesinc.com](http://www.nmta.nesinc.com)

high school teachers must have content-specific endorsements. Whether prospective teachers pursue licensure as undergraduates straight out of high school, or come to teaching after a career in some other field, the programs they pursue must help them develop the foundation for a deep, coherent understanding of the subject area they will teach and begin to equip them with the knowledge and skills to teach for understanding. To help them see the connections between their own mathematical and scientific learning and the work that they will do as teachers, courses for prospective teachers should utilize high-quality K-12 math and science curricula.

Institutions of Higher Education that prepare pre-service teachers are strongly encouraged to work together to develop assessments (or utilize existing assessment tools and protocols) for these courses to be sure that their students are developing the kind of deep mathematical and scientific knowledge needed to teach school mathematics and science. Assessments should measure basic content knowledge as well as “pedagogical content knowledge”<sup>7</sup> (the content-based knowledge that is specialized for teaching).

### **1.1.1(a). Pre-Service Elementary School Teacher Preparation**

Most elementary school teachers are expected to be experts in the teaching and learning of all elementary school subjects. Yet a four-year program of preparation may not provide the depth of knowledge needed in all areas. It is critical to help prospective math and science teachers develop the foundational knowledge and skills needed for a deep understanding of their subjects. The *New Mexico Mathematics and Science Standards*<sup>8</sup> should be used for guidance here, with respect both to specific content and to the processes by which math and science are learned and taught. Suggestions for courses that could help provide better preparation for elementary school math and science teachers appear in Appendix 1.2. In addition, instructors of pre-service elementary teachers should model in their classrooms the kind of instruction that teachers are expected to use when in service.

The *Mathematical Education of Teachers* document<sup>3</sup> recommends that prospective elementary grade teachers be required to take at least 9 semester-hours on fundamental ideas of elementary school mathematics. New Mexico currently requires only 6 hours, but MSAC is recommending an increase to 9 hours.

### **1.1.1(b). Pre-Service Middle School Teacher Preparation**

The overall situation in middle school is somewhat complicated. “Regular” middle schools incorporate grades 6 to 8, where math and science teachers must be “Highly Qualified” or “Endorsed” in the content they are teaching, but there are also K-6 and K-8 schools where “generalists” teach math and science along with the other core and supporting subjects. In “regular” middle schools, some of the math and science teachers have “Elementary K-8” licenses, some have “Secondary 7-12” licenses, and some have “PreK-12 Specialty” or “Special Education” licenses. New Mexico does have a “Middle 5-9 license,” but none of our public teacher preparation institutions have programs for it, so the few teachers in New Mexico that hold such a license have either added it or come from out of state.

The CBMS<sup>3</sup> and NSTA<sup>4</sup> reports have specific suggestions for the preparation of middle school science teachers that are different from those for the elementary generalist and high school science teachers. Suggestions for courses that could help provide better preparation for middle school math and science teachers appear in Appendix 1.3.

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<sup>7</sup> Shulman, L. *Knowledge and Teaching: Foundations of the New Reform*. *Harvard Educational Review*, 57 (1987) 1.

<sup>8</sup> The *New Mexico Math Standards* are available at [www.ped.state.nm.us/MathScience/mathStandards.html](http://www.ped.state.nm.us/MathScience/mathStandards.html) and the *Science Standards* are at [www.ped.state.nm.us/MathScience/scienceStandards.html](http://www.ped.state.nm.us/MathScience/scienceStandards.html).

**1.1.1(c). Pre-Service High School Teacher Preparation**

The traditional preparation for high school math and science teachers has been a bachelor's degree (or equivalent) in the discipline. But there is increasing recognition that knowing mathematics for teaching,<sup>9</sup> and knowing science for teaching, imply that high school math and science teachers need at least a capstone<sup>10</sup> course that addresses pedagogical content knowledge. The situation is also complicated by the fact that high school science teachers in New Mexico get an endorsement in General Science and so must be prepared to teach all the basic high school scientific disciplines. Suggestions for courses that could help provide better preparation for high school math and science teachers appear in Appendix 1.4.

**1.1.1(d). Preparing Post-Baccalaureates for K-12 Math and Science Teaching**

There are several pathways for individuals with bachelor's degrees to become licensed to teach in New Mexico and to add endorsements to existing licenses.

Post-baccalaureate Licensure Programs and Additional Endorsements

New Mexico's public teacher preparation universities offer post-baccalaureate programs that lead to licensure. The programs are typically about 30 credit hours and all or part of them may count towards a master's degree depending upon institutional requirements.

State law allows teachers who have a secondary license to earn an endorsement in math or science by completing a number of credit hours in the subject area. Many teachers come to teaching these subjects in this way, yet there are few programs of study specifically aimed at them. As a result, this pathway has less structure. For example, teachers who are interested in an endorsement in mathematics should be advised to take the standard three-course calculus sequence, a statistics course, and the prerequisites for the capstone course as well as the course itself. On the other hand, currently licensed teachers can also add an endorsement simply by passing the relevant New Mexico Teacher Assessment (NMTA) *Content Knowledge Assessment*.<sup>11</sup>

Alternative Licensure Programs

Individuals with appropriate bachelor's degrees who enroll in a New Mexico Alternative Licensure Program at one of the 11 institutions that offer them may begin teaching immediately with an internship license.<sup>12</sup> Appendix 1.1 has information specific to secondary math and science teaching, but similar programs are also available at the elementary level. The Alternative Licensure Programs at the secondary level usually require 18 credit hours and at the elementary level 21 credit hours. There are exceptions for individuals who have taught for at least 5 years in higher education (see Appendix 1.1).

Master's Degree Programs for Teachers

Teachers seeking a Master's degree are not often prepared to pursue graduate-level courses in mathematics and science. Teachers who return to the university for an advanced degree and wish to acquire an endorsement in a new content area often need to take the same level of coursework as students in the pre-service undergraduate courses. The program of study for these teachers needs to have the same depth and coherence as the pre-service courses but

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<sup>9</sup> [www.aft.org/pubs-reports/american\\_educator/issues/fall2005/BallF05.pdf](http://www.aft.org/pubs-reports/american_educator/issues/fall2005/BallF05.pdf)

<sup>10</sup> A capstone course, often offered in the final semester of a student's major, ties together the many strands studied throughout the major. For future teachers, it provides an opportunity to discuss the connections to the relevant K-12 curriculum and the knowledge they need to facilitate student learning.

<sup>11</sup> [www.nmta.nesinc.com/](http://www.nmta.nesinc.com/)

<sup>12</sup> [www.teachnm.org/bachelor\\_teacher\\_prep.html](http://www.teachnm.org/bachelor_teacher_prep.html)

the needs of these teachers are different. Faculty from Arts and Sciences as well as the College of Education should work together to develop an appropriate course of study for teachers pursuing a Master's Degree as part of their professional preparation. The potential of replicating the University of Texas UTeach program in New Mexico is one avenue to be evaluated. This would require extensive re-tooling of most master's program in New Mexico and a significant monetary investment. There may also be other interesting approaches, in other states or abroad, that should be examined.

## **1.2. Links to the *Strategic Action Plan***

The *Plan* lists two measures for Goal 1 ("Increase student interest, participation, and achievement in math and science") which are relevant to improving the quality of teacher preparation and the numbers of teachers prepared each year:

1.d. Evidence of improved teacher content knowledge.

Measure: Improved performance on math and science sections of the New Mexico Teacher Assessments.<sup>11</sup>

1.e. Evidence in the increase of fully-licensed math and science teachers.

Measure: Increase by 5% per year the number of fully-licensed secondary math and science teachers.

This chapter focuses on implementing the Actions from Strategy 1.2 ("Improve the initial pre-service preparation of math and science educators") of Goal 1. The Actions to be implemented, and their corresponding measures, are to:

1.2.1 Develop a common vision of the content knowledge and pedagogy that pre-service teachers need in order to be effective teachers of math and science.

Measure: This work is in progress. A meeting to develop such a vision for math was held in Taos in May, 2007. A report is available.<sup>13</sup>

1.2.2 Make recommendations for how to revise the required math and science courses so that they lead to the development of a more profound understanding of fundamental math and science concepts.

Measure: This is addressed comprehensively in Section 1.1.1 above, but may be modified by receipt of input from the New Mexico education community.

1.2.3 Incorporate the *Standards* and K-12 curricula that encourage inquiry-based problem solving into teacher preparation programs.

Measure: This will be certified when syllabi for math and science method courses given at New Mexico's teacher preparation institutions indicate the incorporation of standards and inquiry-based problem solving K-12 curricula.

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<sup>13</sup> [www.math.unm.edu/lameta/taos/RecommendationsDraft2.pdf](http://www.math.unm.edu/lameta/taos/RecommendationsDraft2.pdf)

1.2.4 Given Actions 1.2.1 to 1.2.3, revise the *New Mexico Competencies for Entry-Level Math and Science Teachers*, and the math and science sections of the *New Mexico Teacher Assessments*.

Measure: This will be certified by publication of the appropriate new teacher competencies in the *New Mexico Administrative Code*.

1.2.5 Improve recruitment and retention of highly-qualified math and science pre-service teachers with diverse backgrounds.

Measure: Recruitment statistics show significant improvement in this area.

The task of improving pre-service teacher education is also linked to other parts of the *Plan*: (e.g. Strategies 1.1, 1.3, 1.4, 2.1, 2.3, 2.4, 2.5, and 3.1, and Action 1.2.6)

### **1.3. Overall Findings and Recommendations**

**Finding 1.1.** Unless action is taken, New Mexico will soon be facing a serious shortage of high-school math and science teachers. The situation is most critical in math, where the addition of a required fourth year course for high school graduation will substantially aggravate an already tenuous situation. In both math and science, New Mexico is not graduating enough teachers each year to account for normal attrition.

Recommendation 1.1: Revise teacher education programs and create a system of incentives that will attract more New Mexico college and university students to K-12 math and science teaching careers. Mount an aggressive effort to recruit high school teachers from out of state, from the ranks of retired teachers in New Mexico, and via the instigation of a program to attract STEM professionals into the teaching ranks (see Chapter 5).

**Finding 1.2.** More must be done to equip New Mexico's K-8 math and science teachers with the content knowledge, pedagogical skill, confidence and enthusiasm necessary to teach these subjects effectively. This is a critical issue, as many student attitudes toward math and science are formed in elementary school years.

Recommendation 1.2(a): Increase the General Education licensure requirement in math content from six to nine credit hours for elementary level teachers.

Recommendation 1.2(b): Include engaging problem-solving, inquiry-based math and science content and pedagogy in teacher preparation curricula. This could be accomplished via the additional involvement of university academic math and science faculty and New Mexico's STEM professionals (see Chapter 5).

Recommendation 1.2(c): Convene a task force with state-wide representation to redesign entry-level math and science content competencies for pre-service elementary, middle-, and high-school teachers.

Recommendation 1.2(d): Enhance greatly, and make mandatory, a program of continuous professional learning for in-service K-12 teachers (see Chapter 2).

**Finding 1.3.** Activities in other states (e.g. *UTeach* at the University of Texas, or *1,000 Teachers, 1,000,000 Minds* in California) are demonstrating some success in attracting exceptional undergraduates into the grades 7-12 teaching ranks.

Recommendation 1.3: Study programs from other states and countries to determine if suitably-modified versions could be effectively employed in New Mexico for preparing high school math and science teachers. Make grants available to institutions of higher education to study and possibly implement such a program.

**Finding 1.4.** Implementing the above recommendations will be facilitated by developing a state-wide plan.

Recommendation 1.4: Convene a statewide conference, jointly sponsored by the Governor and the State Legislature, to develop a statewide implementation plan for improving K-12 math and science teacher education in New Mexico.

## **1.4. Implementation Plan**

For FY2009, the Implementation Plan focuses on a subset of the above recommendations.

For Recommendation 1.1, we are beginning a multi-year incentivized effort to attract and prepare more high school math and science teachers. We make the following assumptions:

- Set targets of 60 math and 30 science teachers graduating each year (90 total). Set targeted numbers for different areas of science.
- Assume that each future teacher requires 4 years to complete their degree. Begin program with 90 first-year students. In year two, 180 first- and second-year students, etc. When fully operational, 360 pre-service teaching students are in the program at once.
- All students enrolled in this program must commit to teaching in STEM disciplines in New Mexico for 5 years after graduation.

The Appropriations Request to the Legislature for this recommendation includes funding for scholarships, learning materials, and summer professional development programs. Details of the funding request can be found in the Request.

For Recommendation 1.2(a), we have requested that the State Legislature increase the General Education licensure requirement in math content from six to nine credit hours for elementary level teachers.

Recommendation 1.2(d), to enhance greatly, and make mandatory, a program of continuous professional learning for in-service K-12 teachers, is discussed in Chapter 2.

For Recommendation 1.3, we will establish a series of five (5) two-day meetings to study the feasibility of implementing successful teacher preparation programs from other states and countries here in New Mexico. Funding details are available in the Appropriations Request.

For Recommendation 1.4, we request that a state-wide conference, jointly sponsored by the Governor and the State Legislature will be convened to develop the implementation plan for improving K-12 math and science teacher preparation in New Mexico. Funding details are available in the Appropriations Request.

## **Appendix 1.1. Pathways to Teaching in New Mexico – A Second Career for Those with a Degree via an Alternative Licensure Program**

**If you have 5 years of post-secondary teaching experience, follow these steps:**

- 1) Apply for an Internship License from the Public Education Department
- 2) Get a teaching job with a district or charter school
- 3) Complete one year of successful teaching
- 4) Pass 3 New Mexico Teachers Assessments (NMTAs) and take one course on the teaching of reading
- 5) Demonstrate department-approved competencies for issuance of a level two license (\$45,000 minimum for 2<sup>nd</sup> year)

Note: Only one course, on the teaching of reading, is necessary

**If you have 6 years of post-secondary teaching experience, follow these steps:**

- 1) Apply for an Internship License from the Public Education Department
- 2) Get a teaching job with a district or charter school
- 3) Complete one-year of successful teaching
- 4) Pass 3 New Mexico Teachers Assessments (NMTAs) and take one course on the teaching of reading
- 5) Demonstrate department-approved competencies for issuance of a level three license (\$50,000 minimum for 2<sup>nd</sup> year)

Note: Only one course, on the teaching of reading, is necessary

**If you do not have at least 5 years of post-secondary teaching experience, these three avenues are available.**

### **1. The Fast-track Alternative Licensure Program**

- 1) Enroll in an Alternative Licensure Program and receive an Internship License (currently offered at 11 colleges and universities ([www.teachnm.org/bachelor\\_teacher\\_prep.html](http://www.teachnm.org/bachelor_teacher_prep.html)))
- 2) Get a teaching job with a district or charter school
- 3) For a license for teaching in high school, complete the 18-credit Alternative Licensure Program and pass 3 New Mexico Teachers Assessments (NMTAs)

### **2. Alternative Licensure Portfolio Pathway ([www.ped.state.nm.us/div/ais/lic/options.html](http://www.ped.state.nm.us/div/ais/lic/options.html))**

- 1) Complete a portfolio that demonstrates to the reviewers of your online portfolio submission how you meet the requirements for a Level 1 license
- 2) Pass 3 credits of reading courses
- 3) Pass 3 New Mexico Teachers Assessments (NMTAs)
- 4) Get a teaching job with a district or charter school

### **3. Complete a Post-Bachelor's Licensure Program**

Currently available at 9 universities ([www.teachnm.org/bachelor\\_teacher\\_prep.html](http://www.teachnm.org/bachelor_teacher_prep.html)). Most of these programs offer courses that lead to both a teaching license and a master's degree.

## Appendix 1.2. Course Suggestions for Elementary Math and Science Teachers

### Elementary Mathematics Courses

The National Council of Teachers of Mathematics (NCTM) *Curriculum Focal Points*<sup>14</sup> identifies three key learning goals for each K-8 grade level. These focal points should help determine the core material covered in mathematics courses for pre-service teachers.

Developing an understanding of and fluency with numbers is the core goal of K-5 mathematics. In addition, children must gain a solid foundation in basic geometric concepts. Thus, pre-service elementary teachers should study the structure of the rational number system, the place-value structure of our numeration system, and foundational concepts in geometry and measurement.

Because there are both mathematical concepts and attitudes about doing mathematics that will not be fully developed in a single semester course, certain mathematical themes should be treated throughout pre-service K-5 teachers' mathematical coursework. Many of these topics are properly considered topics of the middle school curriculum, but in order for teachers' mathematical knowledge to have *longitudinal coherence*, they must have lots of opportunities to think about how K-5 topics mature in higher grades. The concept of ratio is a central example of this. Children skip-count in kindergarten; it is important for kindergarten teachers to know that skip counting blooms as multiplication and forms the roots for ratios. Since ratios are one of the core concepts of the middle school curriculum, elementary school teachers should have lots of opportunity to make connections between this concept and the other core topics of the K-5 curriculum. Global concepts that should be revisited throughout the elementary mathematics sequence include ratios and proportions, patterns, and algebraic concepts.

The *Mathematical Education of Teachers* document<sup>3</sup> recommends that prospective elementary grade teachers be required to take at least 9 semester-hours on fundamental ideas of elementary school mathematics. New Mexico currently requires only 6 hours, but MSAC is recommending an increase to 9 hours.

In addition, prospective teachers must be provided opportunities for problem solving and an emphasis on mathematical representation, reasoning, and explanation throughout their courses. Pre-service teachers also need to see how mathematics can help them and their students solve real-world problems. While both ratios and algebraic concepts and use of symbolic notation should be incorporated throughout the first two courses as "global" topics, it should be made a specific focus in a third course that elementary school teachers might take. Furthermore, while probability and data analysis are not indicated as core focal points until grade 8, they are mentioned in every grade's "Connections to the Focal Points"<sup>15</sup> and are included in the New Mexico state *Standards* starting in kindergarten. Thus, a third mathematics course for elementary teachers should also address probability and data. This is especially appropriate because ratios should have a greater emphasis in this course as well, and connections between ratios and probability are natural.

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<sup>14</sup> [www.nctm.org/focalpoints](http://www.nctm.org/focalpoints)

<sup>15</sup> *Curriculum Focal Points* presents "Connections to the Focal Points" at each grade level. These are ways in which a grade level's focal points can support learning in relation to *Standards* that are not focal points at that grade level.

Elementary Science Courses

A primary recommendation of the NSTA regarding elementary science teacher preparation is that both teacher preparation and professional development provide experiences that will enable teachers to (1) use hands-on activities to promote development of scientific and critical thinking skills, (2) select content and methods appropriate for their students, and (3) design of classroom environments that promote positive attitudes toward science and technology. Inquiry-based, integrated science courses designed specifically for pre-service teachers have proven effective and should be the first choice for pre-service programs: the alternative is that coursework be carefully selected from the options offered by science departments, though it may well require specific pre-requisites in mathematics and other science coursework.

Strategies: Pre-service teachers should experience a variety of hands-on activities that cover a range of instructional strategies including, but not limited to, classroom demonstrations, independent projects, group projects, guided inquiry and free inquiry. Within these experiences, teachers need support in developing basic skills such as making and recording observations, recognizing patterns, collecting data, and making and interpreting graphs and other visual representations of data (technical diagrams, maps, etc.).

Course Content: This should mostly be driven by state and federal science education standards and benchmarks covering the major fundamental theories and principles of the physical and biological sciences. Where possible, content in classes for pre-service teachers should emphasize the integrated nature of the science disciplines they will be teaching. Also, knowledge of the scientific process, the nature of science and practices involved in scientific thinking need special emphasis. These aspects are embodied in developing scientific inquiry skills and attaining a working knowledge of scientific literacy. The NSTA has declared that “the ability to engage in effective inquiry using scientifically defensible methods is considered a hallmark of scientific literacy”.<sup>16</sup>

Pre-service Student Attitudes: A fundamental concern for teaching science (and math) to pre-service elementary teachers is the frequent negative attitudes about science (and math) that many of them bring to the classroom. Coupled with the relatively low scientific skill levels of many of these students, negative attitudes represents a significant barrier to preparing these individuals to be effective teachers of science. Instructors for pre-service science courses should model both positive attitudes about science and the process of science, including the impact of science on society. Also, specific details about the fundamental goals of science and how science can answer some questions and not others may be effective in promoting healthier attitudes towards learning and teaching science.

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<sup>16</sup> [www.nsta.org/pdfs/NSTAstandards2003.pdf](http://www.nsta.org/pdfs/NSTAstandards2003.pdf)

## **Appendix 1.3. Course Suggestions for Middle School Math and Science Teachers**

### *Middle-Grade Mathematics Courses*

Teaching mathematics in middle grades requires preparation different from, not simply less than, preparation for teaching high school mathematics, and certainly requires more depth than that needed by teachers of earlier grades. Two types of courses should be included in preparing middle grade math teachers. First, courses must be designed that will provide a deep understanding of the mathematics to be taught. Some of this coursework could overlap with coursework for K-4 teachers, particularly that concerning fundamental ideas (such as place value) that extend from whole numbers to decimals.

Second, courses are needed that will strengthen these prospective teachers' knowledge of mathematics and broaden their understanding of the mathematical connections between one educational level and the next, between elementary and middle grades, and between middle grades and high school. This second type of coursework would require at least a pre-calculus or college algebra background. One semester of calculus also should be part of this second group of courses, especially one that focuses on concepts and applications.

Number theory and discrete mathematics can offer teachers an opportunity to explore in depth many of the topics they will teach. A history of mathematics course can provide middle grades teachers with an understanding of the background and historical development of many topics in the middle grades curriculum. A mathematical modeling course, depending on the level and substance of the course, can provide prospective teachers with understanding of the ways in which mathematics can be applied. If the prospective teachers are likely to teach algebra, coursework in linear algebra and modern algebra would be appropriate. If, in addition, the teachers might be expected to teach a full-year course in geometry, then they should have the same geometry coursework as prospective secondary teachers.

### *Middle-Grade Science Courses*

In parallel with the above, teaching middle grades science requires preparation different from, not simply less than, preparation for teaching high school science, and certainly requires more depth than that needed by teachers of earlier grades. Courses must lead prospective teachers to develop a deep understanding of the specific science discipline they will be teaching. An NSTA focus<sup>17</sup> for this grade level is the recognition that middle-school students attitudes and interest toward science are at a pivotal point; many national assessments show a significant decrease in science scores in middle school that continue to decrease into high school. To address this trend, teacher preparation should utilize inquiry-based approaches to stimulate and maintain student interest. Where possible, the connection between science classroom content and activities should show the impact and importance of science and technology on society, including understanding and addressing important local, state and national issues such as water resources, energy and global climate change.

Some of this coursework could overlap with coursework for K-5 teachers, particularly that concerning fundamental concepts of physical and life science and the nature of scientific thinking and process. Specifics of these programs are addressed in the section on elementary science above. However, the necessary depth of knowledge to teach middle school and mandates for highly qualified teachers requires pre-service teachers to complete additional courses. These additional classes can take on a variety of modes, including standard lab/lecture courses offered by university science departments, summer courses, online courses or research experiences that are becoming more available to middle and high school science teachers.

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<sup>17</sup> [www.nsta.org/pdfs/NSTAstandards2003.pdf](http://www.nsta.org/pdfs/NSTAstandards2003.pdf), p. 8-9.

## **Appendix 1.4. Course Suggestions for High School Math and Science Teachers**

### High School Mathematics Courses

The education of prospective high school mathematics teachers should help them develop:

- A deep understanding of the fundamental mathematical ideas in grades 9-12 curricula and strong technical skills for application of those ideas.
- Knowledge of the mathematical understandings and skills that students acquire in their elementary and middle school experiences, and how they affect learning in high school.
- Knowledge of the mathematics that students are likely to encounter when they leave high school for collegiate study, vocational training or employment.
- Mathematical maturity and attitudes that will enable and encourage continued growth of knowledge in the subject and its teaching.

The CBMS report<sup>3</sup> recommends two main ways that mathematics departments can attain these goals. First, core mathematics major courses can be redesigned to help future teachers make insightful connections between the advanced mathematics they are learning and the high school mathematics they will be teaching. Second, mathematics departments can support the design and development of a capstone course sequence for teachers in which conceptual difficulties, as well as fundamental ideas and techniques of high school mathematics, are examined from an advanced standpoint. Such a capstone sequence would be most effectively taught through a collaboration of faculty with primary expertise in mathematics and faculty with primary expertise in mathematics education and experience in high school teaching.

*At UNM: Currently the Mathematics Education concentration for the bachelor's in mathematics requires students to take the traditional calculus sequence, calculus for teachers, history of mathematics, college geometry, a course in problem solving, discrete mathematics, linear algebra, abstract algebra, statistics, and a one-semester capstone course for secondary mathematics teachers. Calculus for Teachers, Problem Solving, and the capstone course are all designed to help teachers make connections between the traditional undergraduate-level content they learn and the mathematics they will teach as high school teachers.*

### High School Science Courses

The education of prospective high school science teachers should help them develop:

- A deep understanding of the fundamental principles and applications in grades 9-12 curricula.
- A deep knowledge of laboratory science sufficient to select, equip and teach laboratory exercises safely.
- Knowledge of the science concepts taught at the middle school level, and how they connect to learning in high school.
- Knowledge of the science concepts that students are likely to encounter when they leave high school for collegiate study, vocational training or employment.

## *New Mexico Math and Science Advisory Council*

- Scientific and mathematical maturity and attitudes that will enable and encourage continued growth of knowledge in the subject and its teaching.

Currently, because science endorsement requirements are for General Science, most undergraduates in New Mexico planning to become high school science teachers work on a degree in Secondary Education that usually includes over 50 credit hours of science content courses, with one discipline serving as an emphasis area. Biology is by far the most common emphasis area. There are only rare examples of science content courses that are specifically designed for future high school science teachers. One example of such a capstone course is in the Biology Department at UNM. It is offered irregularly with special funding from an NSF Noyce Grant.

## Appendix D-3-2

### Project 2012 Report: Links to Strategic Action Plan

New Mexico Math and Science Advisory Council

Chapter 1 24 Version 2.0

#### Appendix 1.5. Links to the *Strategic Action Plan*

The *Plan* lists two measures for its *Goal 1* (“Increase student interest, participation and achievement in math and science”) which are relevant to improving the quality of teacher preparation and the numbers of teachers prepared each year:

1.d. Evidence of improved teacher content knowledge.

Measure: Improved performance on math and science sections of the New Mexico Teacher Assessments.<sup>6</sup>

1.e. Evidence in the increase of fully-licensed math and science teachers.

Measure: Increase by 5% per year the number of fully-licensed secondary math and science teachers.

This chapter focuses on implementing the *Actions* from *Strategy 1.2* (“Improve the initial preservice preparation of math and science educators”) of *Goal 1*. The *Actions* to be implemented, and their corresponding measures, are to:

1.2.1 Develop a common vision of the content knowledge and pedagogy that pre-service teachers need in order to be effective teachers of math and science.

Measure: This work is in progress. A meeting to develop such a vision for math was held in Taos in May, 2007. A report is available.<sup>30</sup>

1.2.2 Make recommendations for how to revise the required math and science courses so that they lead to the development of a more profound understanding of fundamental math and science concepts.

Measure: This is addressed comprehensively in Section 1.1.3 above, but may be modified by receipt of input from the New Mexico education community.

1.2.3 Incorporate the *Standards* and K-12 curricula that encourage inquiry-based problem solving into teacher preparation programs.

Measure: This will be certified when syllabi for math and science method courses given at New Mexico’s teacher preparation institutions indicate the incorporation of standards and inquiry-based problem solving K-12 curricula.

1.2.4 Given Actions 1.2.1 to 1.2.3, revise the New Mexico *Competencies for Entry-Level Math and Science Teachers* and the math and science sections of the *New Mexico Teacher Assessments*.

Measure: This will be certified by publication of the appropriate new teacher competencies in the *New Mexico Administrative Code*.

1.2.5 Improve recruitment and retention of highly-qualified math and science pre-service teachers with diverse backgrounds.

Measure: Recruitment statistics show significant improvement in this area.

The task of improving pre-service teacher education is also linked to other parts of the *Plan*: (e.g. *Strategies* 1.1, 1.3, 1.4, 2.1, 2.3, 2.4, 2.5 and 3.1, and *Action* 1.2.6)

## Appendix 2.2. Links to the *Strategic Action Plan*

The *Plan* lists two measures in its *Goal 1* (“Increase student interest, participation and achievement in math and science”) which are relevant to expanding professional learning opportunities for math and science K-12 classroom teachers:

1.d. Evidence of improved teacher content knowledge

Measure: Improved performance on math and science sections of the New Mexico Teacher Assessments (NMTA).<sup>27</sup>

1.e. Evidence in the increase of fully-licensed math and science teachers

Measure: Increase by 5% per year the number of fully-licensed secondary math and science teachers.

This section focuses mainly on the following nine *Actions* from *Strategy 1.3* (“Strengthen the content and pedagogical knowledge, and leadership skills, of math and science educators and administrators to transform instruction to improve student engagement and achievement”):

1.3.1 Help math and science educators remain abreast of developments in other states and countries. Disseminate “best practices” for math and science teaching and learning through professional learning activities and web pages.

Measure: Number of high quality professional learning opportunities made available; number of web pages created; number of hits on web pages.

1.3.2 Increase collaboration among professional learning leaders and build capacity statewide. Establish an annual meeting for professional learning providers in math and science education. Maintain a list of professional learning providers.

Measure: Maintain a current list of professional learning providers; hold collaboration meetings for professional learning providers.

1.3.3 Implement the “Professional Learning” and “Leadership” guidelines from the *Quality Mathematics Education Model* (QMEM)<sup>28</sup> and the *State Professional Learning Framework*.<sup>29</sup>

Measure: Reinforce and reiterate the strategies in the QMEM “Professional Learning” and “Leadership” every time professional learning is offered.

1.3.4 Create “Professional Learning” and “Leadership” guidelines for the *Quality Science Education Model* (QSEM).

Measure: This *Action* has been completed by the development of a combined set of guidelines for a *Quality Math and Science Education Model* (NMQMSEM).<sup>21]</sup>

1.3.5 Promote practices that help teachers, administrators and policy makers use data more effectively in making decisions.

Measure: Make presentations using data in decision making at the annual *New Mexico Coalition of School Administrators Conference* in July.

<sup>27</sup>[www.nmta.nesinc.com](http://www.nmta.nesinc.com)

<sup>28</sup> <http://mc2.nmsu.edu/toolkits/QMEMcurriculum.pdf>

<sup>29</sup> <http://teachnm.org/resources/professional-development/professional-development-framework.html>

### **Appendix D-3-3**

#### **Teachers-Teachers.com**

**Membership:** membership to Teachers-Teachers.com is provided to 25 public school districts and 4 charter schools within New Mexico. Each is entitled to post an unlimited number of positions, conduct an unlimited number of searches for candidates, and hire an unlimited number of teachers, administrators, and related service providers. The current New Mexico database consists of 18,307 licensed candidates.

**Technical Assistance:** Teachers-Teachers.com provides thorough technical assistance for the participating New Mexico school districts, charter schools and candidates. The New Mexico recruitment coordinator provides training by telephone and ongoing support and assistance to each school user in posting positions, conducting searches, and sending mass emails designed to advertise vacancies, incentive programs and recruitment fairs to targeted groups of candidates. The candidate support representative responds to candidate questions and/or concerns through email and phone calls. Both representatives are available by a toll-free number during regular business hours.

**Reporting:** Teachers-Teachers.com provides quarterly and annual reports on candidate database growth, registered users, school district/charter school usage, hire data and other relevant information that the New Mexico Department of Education can use to evaluate the program and to establish the basis for future funding.

## Appendix D-5-1

### Continuous Improvement Professional Development



Saturday, May 16, 2009

#### ***Truman Pumps Up Test Scores***

By Elaine D. Briseño

Journal Staff Writer

Truman Middle School has spent many years trying to improve student performance, and the effort seems to finally be paying off.

Scores at the school have more than doubled in the area of math and improved significantly in reading since 2005, according to state data. The information is based on student performances on the annual state standardized test that measures how many of the school's students are performing at or above proficiency in the areas of math and reading.

Truman principal Judith Martin-Tafoya said the most important step the school has taken is adopting a method that requires them to continuously evaluate the success, or failure, of their teaching methods.

In 2005, only 10 percent of the students at Truman were proficient or above proficient in math and 30 percent in reading. That number slowly climbed and, by 2008, had reached 23 percent in math and 41 percent in reading.

A local group appointed by the governor has recognized the school for this improvement. The recognition was given May 6 as part of the Spotlighting Quality Schools initiative, which is sponsored by the Governor's Business Executives for Education.

Laurel Moore, executive director of Strengthening Quality Schools, which oversees the program, said the statewide initiative began in 1992 in an effort to improve school systems across the state. The program helps train teachers and staff members in methods that are supposed to help improve student performance.

The program takes common business practices and modifies them for use in schools. One strategy is coming up with a plan, following it, reviewing it and then taking action on needed changes.

Martin-Tafoya said this method at Truman is called Continuous Classroom Improvement and is used schoolwide by teachers. She said teachers come up with a lesson plan, do the plan, review the results and make changes according to what worked well and what didn't.

In addition to the state test, which is given at the end of the school year, Truman uses quarterly tests created by the school to measure student progress. Students are given the same test and can see their improvement in the core subject areas of math, language arts, social studies and science as the year progresses. Another major component, Martin-Tafoya said, is student involvement. Each student has a folder with their data on the quarterly tests and other classroom work and exams.

Sonja Chlapowski , a social studies teacher at the school for eight years, said using the data folders gives students motivation to improve. She said keeping track of the data allows students to see their progress every time they take the same test, which gives them a sense of accomplishment. The method, she said, makes students invested in their own education.

"Using the Continuous Classroom Improvement methods provides structure for students," she said. "They know what's going on at every moment. They know their objectives and their goals that they need to reach."

Truman was one of the first schools targeted for major improvement when the federal No Child Left Behind Act was adopted in early 2000. The federal act measures school progress based on standardized state test scores and other factors like attendance. Each school is designated as meeting or not meeting Adequate Yearly Progress. A school not making AYP for several years must make changes and adopt an alternative governance plan to improve student performance.

Martin-Tafoya said Truman began that process in 2004 and began using the Continuous Classroom Improvement method in 2005. That's when the scores started climbing. But, Martin-Tafoya said, the scores don't tell the whole story. She said the real improvement is something that cannot be measured.

"It's a change in the culture," she said. "What I see is students talking much more about academics. It's like our school motto says, 'It's Cool to be Smart!' "

**Appendix D-5-2**  
**Excerpts from www.teachnm.org**

Professional development is a systemic process by which educators increase knowledge, skills and abilities to meet professional and organizational goals that build capacity within the individual, organization and education system for the purpose of ensuring success for all students.

Professional development provides educators with the processes, intellectual tools and resources to assess and diagnose students' academic, social and emotional needs in order to create rich, rigorous and rewarding learning experiences for every student.

In New Mexico we believe that educators are dedicated to ongoing professional development which begins with their pre-service activities, continues with their induction into the profession and extends through the life of their professional career. To ensure career-long professional learning opportunities, district-wide professional development programs should incorporate two essential components: (a) a comprehensive professional growth process and (b) effective support structures for professional learning.

a. The professional growth process must:

- Support student learning and performance by being directly related to learning goals and learner needs.
- Be aligned with state, district, school and/or individual professional goals (e.g., district/school Educational Plan for Student Success, the Professional Development Plan and/or the Professional Development Dossier as related to licensure maintenance and/or advancement).
- Be aligned with district, state and national standards for educational professionals and standards and benchmarks for student learning.
- Incorporate deep knowledge of content and effective pedagogy.
- Be based on principles of adult learning and teacher development. Effective professional development differentiates among learning needs of distinct groups (teachers, administrators, support providers, parents and community representatives); of different developmental levels among participants (novices,

**Comment [SH1]:** Move all highlighted section to appendix

developing and experienced professionals); and for different school contexts (rural/urban).

- Be both systemic and systematic while allowing for a variety of delivery modes (both formal and informal); a variety of approaches; and a variety of purposes (such as mentoring, individual and group study, on-site training, workshops, conferences, university courses, on-line instruction).
- Acknowledge that attainment and implementation of new understandings and skills require 3-5 years. Accordingly, effective professional development is sustained over time to provide educators the opportunity for research and development, application and practice and reflection.
- Be job-embedded, timely, relevant and tied to work-related knowledge and skills. Effective professional development incorporates sufficient time during the work day for educators to engage in collegial collaboration and discussion for implementation.
- Be collaborative in nature with goals jointly determined and based on organizational goals and student needs.
- Take place in a safe environment which fosters educators' confidence in implementing new practices and critically examining the impact of instructional change on student learning.
- **Be regularly evaluated in terms of its impact on professional and student learning, performance and overall school success.**
- Focus on best practices.

b. Effective professional development is supported by a financial commitment from educational systems to support resource development, including time for collaboration, application of new learning and reflection; full collaboration and participation of all professional stakeholders; skilled leadership at the state, district and school levels; and a culture that values teacher learning as much as student learning.

The New Mexico Public Education Department requires school districts to prepare systems-wide professional development plans for varied purposes. Most notably, these purposes include preparation of the Educational Plan for Student Success, training of staff in performance evaluation requirements of the Three-Tiered Teacher Licensure

System and design of the Mentoring Program required to support the work of beginning teachers.

No matter what purpose drives a district professional development plan, professional development programs and activities embedded in these plans should meet the highest standards for professional development.

Schools, districts or independent agencies that apply for state funding to support professional development programs must demonstrate the relationship between the proposed programs and the National Staff Development Council's "Standards for Professional Development." Funding proposals should explicitly address all of the following questions that illustrate components of the standards, as follows:

**Context:** How are the resources (time, leadership, personnel and budget considerations) structured to support the plan? How are roles of leaders and participants defined and goals determined?

**Process:** Are appropriate adult learning strategies used that will support program effectiveness? Is there a range of learning opportunities that address areas of need, diversity, skill development and refinement? How are data related to student learning to be used to determine goals and assess outcomes? How is collaboration among administrators and teachers embedded in the professional development process?

**Content:** What should participants know and be able to do? Is the content clearly connected to workplace requirements and clearly articulated goals?

Evaluation of professional development processes and initiatives should be conducted regularly and include data collection at multiple levels from multiple sources. Effective evaluation includes assessment at all levels and is extended beyond the professional development activities to include long-term impact and follow-up. Levels of program evaluation should include:

**Participant Response** – Was the learning useful? Were the activities appropriate and meaningful? Was the facilitator effective? Were the accommodations comfortable?

**Participant Learning** – What new learning resulted? What knowledge/skills can be directly applied in the workplace? What would it take to implement new knowledge/skills?

**Organizational Change and Support** – Have sufficient resources been allocated to support change? Are participants supported in the implementation process? In what ways is organizational change documented?

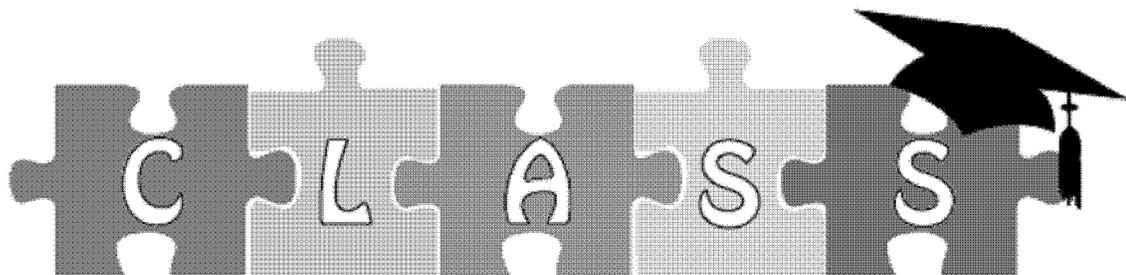
**Participant Use of Knowledge and Skills** – How is new knowledge/skills being implemented? What practices or behaviors have changed as a result of the professional development program?

**Student Learning** – How have students been affected by changing practices or behaviors? What evidence is there that student learning has been influenced by the use of new knowledge/skills?

# 2009-2010 SCHOOL AND DISTRICT IMPROVEMENT FRAMEWORK

NEW MEXICO PUBLIC EDUCATION DEPARTMENT

**New Mexico  
System  
of  
Support**



**Collaboration, Leadership, &  
Accountability for Student Success**

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## ACKNOWLEDGEMENTS AND PREFACE

The Priority Schools Bureau (PSB) wishes to thank district representatives and individuals from state educational organizations who reviewed earlier drafts of CLASS. Participants in focus groups that were conducted throughout the state during the spring of 2009 provided valuable feedback that was carefully considered for inclusion in this document. (A list of districts and organizations participating in the focus groups can be found in Appendix A.)

Collaboration, Leadership and Accountability for Student Success (CLASS) form the foundation of New Mexico's system of school and district improvement. Rubrics that define collaboration, leadership, and accountability for student success (CLASS) at the school and district levels form the centerpiece of this new system. PSB was reorganized to provide support to schools and districts through collaboration with districts, Regional Educational Cooperatives, and our educational partners across the state. The New Mexico Public Education Department (NMPED) will provide leadership and technical assistance to schools in School Improvement I, School Improvement II, Corrective Action, Restructuring I, and Restructuring II. It will also provide leadership, technical assistance and support directly to districts in need of improvement and in corrective action. The 2009-2010 School and District Improvement Framework was developed in recognition of our shared responsibilities and accountability for the success of all of New Mexico's children.

In addition to complying with Federal and state requirements, the framework reflects what has worked in other states and the lessons about change that we have learned from our own state. The document is intended to guide and inform the difficult and important work of improving student achievement in schools and districts throughout New Mexico. Copies of this document can be accessed online by clicking the Priority Schools Bureau link on the New Mexico Public Education Department website at <http://www.ped.state.nm.us>. The Priority Schools Bureau staff is available to answer your questions and provide assistance. Please call the Priority Schools Bureau at (505) 827-8097.

*Sheila A. Hyde, Ph.D.*  
*Assistant Secretary*  
*Quality Assurance & Systems Integration*

## INTRODUCTION

The vision of the New Mexico Public Education Department (NMPED) is a world-class educational system that prepares all students to succeed in a diverse and increasingly complex world. Consequently, its mission is to provide leadership and technical assistance to districts across the state to improve performance of all students and close the achievement gap. An aid in this endeavor is the system of support for schools and districts which are required by federal law for any school or district that has not met Adequate Yearly Progress (AYP) goals. The NMPED works with districts to help students improve their scores on New Mexico state assessments so that a greater percentage each year score at the proficient or advanced levels for reading/language arts and mathematics.

Schools and districts are identified for improvement if they do not meet pre-established improvement goals for two consecutive years or more. Schools and districts need to meet these goals for all of their students and also for each of the subgroups of students based on race/ethnicity, socioeconomic status, gender, and for students with disabilities. A school or district may be identified for improvement based on its overall scores or for scores of any of the subgroups, but the standard is that they have not made AYP for at least two years for the same subgroups in the same subject matter.

Under the law, the NMPED must not only identify schools and districts for improvement, it must also offer support to these schools and districts so that they can improve. The timeline cannot be changed nor can the sequence of what happens to a school or district; but, the state has choices in terms of the types of support it offers at various levels.

This framework, as referenced in the Standards of Excellence,<sup>1</sup> actually includes two frameworks, one for districts and one for schools, both of which carry the power of rule. It is inclusive of how the NMPED works with schools and districts that are not meeting AYP, as defined in the federal No Child Left Behind (NCLB) law. It is a technical assistance document that outlines the roles and responsibilities of schools, districts, and the NMPED for improving the achievement of all students.

This framework outlines: (1) the guiding principles of the system of support, how it was developed, and its core; (2) criteria for school and district improvement designations; (3) roles and responsibilities for schools, districts, and the NMPED in complying with NCLB and state requirements; and (4) guidelines for developing improvement plans.

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<sup>1</sup> Standards of Excellence: 6.29.1.8 Implementation states the following: “A. District Responsibilities for the EPSS. The EPSS is a strategic improvement plan that is written or revised based on trend data and the academic achievement of the school and district. Each district is required to develop, implement, monitor and evaluate the plan on an annual basis. Additionally, the district shall ensure that site-level EPSS is developed by each school within the district and by each charter school for which the district is the chartering agency. State-chartered charter schools shall develop a site-level EPSS.” <http://www.nmcpr.state.nm.us/NMAC/parts/title06/06.029.0001.htm>.

## Guiding Principles of the System of Support

The system of support is designed to help districts and schools to improve the achievement of all students through a systems approach for continuous improvement and is characterized by:

- **Partnerships** - The system incorporates principles of effective partnerships, including collaboration, mutuality, and ongoing support.
- **Research and Evidence Base** - The system uses data and research-based best practices as the foundation for decision-making. Its primary focus is high levels of achievement for all students.
- **Strategic Support** - The system is strategic and dynamic. It is timely, flexible, locally focused, and clearly defined. It features a continuum of services designed to promote early intervention and results in increased efficacy, capacity building, and sustainability.
- **Continuous Improvement** - The system is transparent, solicits and values stakeholder input, and meets state and federal requirements. It expects ambitious goals, plans, actions, and accountability at all levels. It has rewards and incentives for improvement.

## Development of the System of Support

The system was developed by a team of NMPED Priority Schools Bureau (PSB) staff and staff from the Southwest Comprehensive Center (SWCC),<sup>2</sup> with input from representatives from districts and the educational organizations listed in Appendix A. State law and rule, the federal NCLB law and Non-Regulatory Guidance (NRG), as well as models from other states were considered in the development process. The development team also reviewed the research and best practices of high performing schools and districts. Much has been written about how to improve low-performing schools. The Institute for Education Sciences published a practice guide in 2008 entitled *Turning Around Chronically Low-Performing Schools*. The first two of the four recommended strategies are to:

1. *Signal the need for dramatic change with strong leadership:* Schools should make a clear commitment to dramatic changes from the status quo, and the leader should signal the magnitude and urgency of that change. A low-performing school that fails to make adequate yearly progress must improve student achievement within a short timeframe—it does not have the luxury of years to implement incremental reforms.
2. *Maintain a consistent focus on improving instruction:* Chronically low-performing schools need to maintain a sharp focus on improving instruction at every step of the reform process. To improve instruction, schools should use data to set goals for instructional improvement, make changes to immediately and directly affect instruction, and continually reassess student learning and instructional practices to refocus the goals.<sup>3</sup>

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<sup>2</sup> The Southwest Comprehensive Center at WestEd is a federally funded organization charged with helping state education agencies implement No Child Left Behind.

<sup>3</sup> Herman, R. 2009. *Bringing Expert Evidence to Practice* presentation for REL West Tempe, AZ.

This research and the research cited in Appendix B were used to guide the development of New Mexico's system of support for school improvement.

Relatively little has been written on how to improve low performing districts. Although the research on district improvement is limited compared to the body of research on school improvement, the findings and conclusions of the district improvement research are quite consistent from study to study. Stated most succinctly: "Both the pace and extent of improvements in student achievement can be substantially impacted by a systemic and coherent district-wide initiative focused on instruction and supported by strong district leadership."<sup>4</sup>

The research on district improvement that forms the basis for New Mexico's system of support for districts is summarized in Appendix C.

### **Core of the System of Support: The CLASS Assessment**

The CLASS Assessment: School Improvement (Appendix D) and the CLASS Assessment: District Improvement (Appendix E) reflect the research and serve as a foundation for this work. Using a rubric format, the NMPED describes characteristics of schools and districts at various levels of performance in the following categories:

- Dynamic and Distributed Leadership
- Quality Teaching and Learning
- Culture and Collaborative Relationships

Each category contains indicators that more fully describe each characteristic. For each indicator, four levels of performance are described: "Does Not Meet"; "Partially Proficient"; "Proficient"; and "Exemplary." The rubrics illustrate what should be occurring in high-performing schools and districts and show the incremental steps that need to be taken in order to reach exemplary demonstration of these characteristics. As the foundation of the work, the rubrics communicate to stakeholders what the improvement initiative is designed to accomplish.

The School & District Improvement Framework is divided into two volumes: Volume I and Volume II. Throughout Volume I, there are numerous references to Appendices A-M which can be found in Volume II. This second volume represents background information and implementation tools. Volume II can be located on the PSB webpage: <http://www.ped.state.nm.us/div/psb/index.html>.

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<sup>4</sup> Cawelti, G., & Protheroe, N. 2007. "The School Board and Central Office in District Improvement." *Handbook on Restructuring and Substantial School Improvement*. Charlotte, NC: Information Age Publishing and The Academic Development Institute.

## SCHOOLS IN NEED OF IMPROVEMENT (SINOI) DESIGNATIONS

Schools in need of improvement (SINOI) receive that designation once they have failed to meet established NCLB targets for AYP for two consecutive years. The criteria for and names of these designations are outlined in Table 1 below.

**Table 1: Schools in Need of Improvement Designation and Description**

DESIGNATION	School Improvement 1 (SI-1)	School Improvement 2 (SI-2)	Corrective Action (CA)	Restructuring 1 (R1)	Restructuring 2 (R2)
<b>DESCRIPTION</b>	Did not meet AYP in the same subject(s) and /or other indicator* for two consecutive years.	Did not meet AYP in the same subject(s) and /or other indicator* after being in S-1.	Did not meet AYP in the same subject(s) and / or other indicator* after being in S2.	Did not meet AYP in the same subject(s) and /or other indicator* after being in CA.	Did not meet AYP in the same subject(s) and /or other indicator* after being in R1.

\*The NM Consolidated State Application Accountability Workbook, July 23, 2008 defines other academic indicators as:

- 95% participation in the assessments for all groups and sub-groups;
- 92% attendance in elementary and middle schools; and
- Graduation Rate: meets or exceeds the AMO graduation target; for 2009-2010 AMO is 52%.

In accordance with state law New Mexico identifies schools based on the contents of the school accountability report. As required by both state and federal law, the NMPED has certain responsibilities when schools are identified as in need of improvement. The district also has specific responsibilities for schools that are identified for improvement. In fact, districts have increasing responsibilities for supporting and assisting schools that continue to not meet AYP targets for multiple years. The schools themselves must also fulfill specific responsibilities. Table 3 (pages 11-16) outlines these roles and responsibilities.

## DISTRICTS IN NEED OF IMPROVEMENT (DINOI) DESIGNATIONS

Under No Child Left Behind, the NMPED is required to identify for improvement any district that fails to make AYP for two consecutive years, including the period immediately prior to January 8, 2002. The criteria for and names of these designations are outlined in Table 2 below.

**Table 2: Districts in Need of Improvement Designations and Description**

DESIGNATION	District Improvement 1 (DI-1)	District Improvement 2 (DI-2)	Corrective Action 1 (DCA-1)	Corrective Action 2 & Beyond (DCA-2)
<b>DESCRIPTION</b>	Did not meet AYP for 2 consecutive years in the same subject area and/or other indicator(s)*.	Did not meet AYP in the same subject area and/or other indicator(s)* after being in DI-1	Did not meet AYP in the same subject area and/or other indicator(s)* after being in DI-2	Did not meet AYP in the same subject area and/or other indicator(s)* after being in CA

\*The NM Consolidated State Application Accountability Workbook, July 23, 2008 defines other academic indicators as: (See previous table.)

- 95% participation in the assessments for all groups and sub-groups;
- 92% attendance in elementary and middle schools; and
- Graduation Rate: meets or exceeds the AMO graduation target; for 2009-2010 AMO is 52%.

New Mexico identifies “Priority Districts” as those districts that:

- Did not meet AYP for the school year 2008-2009;
- Currently have a status of DI 1, DI 2, or Corrective Action (CA)

The NMPED and districts in need of improvement have specific roles and responsibilities under the state and federal law, as outlined on the next page.

## SCHOOLS IN NEED OF IMPROVEMENT (SINOI)

### Roles and Responsibilities

Table 3 (pages 11-16), The School Table of Responsibilities, details the responsibilities of the school at each of the five AYP designations. It also lists the district and NMPED responsibilities in support of the school. What follows is the designation and the NMPED's rationale for its approach.

**School Improvement Year One (SI-1).** A school that has been identified for improvement is required to complete a district-led self-assessment or to contract with an external group to conduct an assessment of its practices. Identifying a school for improvement serves as a formal acknowledgement that the school is not meeting the challenge of successfully teaching all of its students. The district bears the primary responsibility for ensuring that the school in improvement receives technical assistance as it develops or revises its school plan and throughout the plan's implementation.

**School Improvement Year Two (SI-2).** If the school does not make AYP at the end of School Improvement Year One, the school enters SINOI 2; and, an external assessment is required. During a school's second year of school improvement, a district must ensure that the school continues to receive the technical assistance that was begun in year one; that assistance should be focused specifically on the continued implementation of the school improvement plan.

**Corrective Action (CA).** If the school still does not make adequate yearly progress and is identified for improvement for another year, it enters corrective action status. An instructional audit is conducted. Identifying a school for corrective action signals the district's intention to take greater control of the school's management and to have a more direct hand in the decision-making.

**Restructuring Year 1 (R1).** When a school has still not made adequate yearly progress, the school is required to develop an Alternative Governance Plan (AGP). Under NCLB, when a school is in restructuring status, the district must take intensive and far-reaching interventions to revamp completely the operation and governance of the school.

**Restructuring Year 2 (R2).** During this year, full implementation of revised plans must occur, and the state will assign instructional coaches, mentors, and others to support the schools. During year two of restructuring, while the district's plan is being implemented, the district should continue to provide the school with quality technical support and assistance that address the complexities of implementation.

This newly revised system will be fully implemented in the 2011-12 School Year. A transition plan to move from the current to the new system is on the PSB website: *NMPED Interventions for Schools in Improvement – Transition Plan*. (<http://www.ped.state.nm.us/div/psb/index.html>)

**TABLE 3- School Improvement 1 (SI-1)  
CLASS  
School Table of Responsibilities**

**Rationale Statement:**

**Identifying a school for improvement serves as a formal acknowledgement that the school is not meeting the challenge of successfully teaching all of its students. The LEA/District bears the primary responsibility for ensuring that the school in improvement receives technical assistance as it develops or revises its school plan and throughout the plan's implementation.<sup>5</sup>**

AYP Designation	School Responsibilities	District Responsibilities	NMPED Responsibilities
School Improvement 1 (SI-1)	<ul style="list-style-type: none"> <li>• With the district, form a district-led support team to perform a school self assessment, OR contract with an outside group or individual to do so. Conduct the assessment using the NMPED/PSB CLASS Assessment: School Improvement, including the data collection tools, rubrics, and reporting form.</li> <li>• Revise the school EPSS with the appropriate stakeholders, based on the results of the assessment.</li> <li>• Submit the school's EPSS to the district. Revise using district feedback.</li> <li>• Implement the revised EPSS as quickly as possible, but no later than the beginning of the following school year. Work with district specialists and outside support as needed to implement the plan. Provide systematic professional development aligned to the EPSS.</li> <li>• Assure compliance with all federal and state requirements of SINOI schools. This includes parent notification of status for Title I schools; and notification of status through a public meeting for non-Title I schools. See Appendix K for Title I compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>• With the school, form a district-led support team or contract with an external team to conduct the CLASS Assessment: School Improvement. Implement the assessment, using the appropriate tools and forms.</li> <li>• Assist the school with the revision of its EPSS based on the results of the assessment and maintain documentation.</li> <li>• Review the EPSS and offer feedback for revision as needed. Ensure submission of the revised EPSS to NMPED/PSB and, if applicable, Title I.</li> <li>• Provide technical assistance (including aligned professional development) to the school as it implements its EPSS. Secure outside expertise as needed to implement the plan.</li> <li>• Assure compliance with all federal requirements of SINOI schools including parent and public notification of status. See Appendix K for Title I compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Provide lists of specialists who can lead or serve as team members for external assessments.</li> <li>• Provide training and tools for conducting assessments.</li> <li>• Provide templates for compliance requirements.</li> <li>• Review EPSS revisions and provide feedback to school and district.</li> <li>• Assure compliance with all federal and state requirements.</li> <li>• Disseminate information on effective research-based interventions and strategies.</li> </ul>

❖ Indicates a new tool/initiative/requirement that will be implemented as resources become available. NMPED will work directly with districts to identify next steps leading to full implementation. (<http://www.ped.state.nm.us/div/psb/index.html>)

<sup>5</sup> *LEA and School Improvement Non-Regulatory Guidance*. Student Achievement and School Accountability Programs Office of Elementary and Secondary Education. U.S. Department of Education. July 21, 2006. pp. 5, 14.

**Table 3- School Improvement 2 (SI-2)  
CLASS  
School Table of Responsibilities**

**Rationale Statement:**

**During its second year of school improvement, an LEA must ensure that the school continues to receive the technical assistance that was begun in year one; that assistance should be focused specifically on the continued implementation of the school improvement plan.<sup>6</sup>**

AYP Designation	School Responsibilities	District Responsibilities	NMPED Responsibilities
School Improvement 2 (SI-2)	<ul style="list-style-type: none"> <li>❖ Contract with an outside group or individual to conduct an external assessment for the school. If a district-led assessment was conducted in SINOI 1, conduct an assessment using an external assessment team. If an external assessment was conducted in SINOI 1, conduct another assessment only for those areas in which AYP was not met for two consecutive years; i.e., for the content area and/or subgroups in which AYP was not met. Use the NMPED/PSB CLASS Assessment: School Improvement, including the data collection tools, rubrics and reporting format.</li> <li>• Working with outside specialists and appropriate stakeholders as needed to identify appropriate solutions to challenges, revise the school EPSS based on the results of the assessment.</li> <li>• Submit EPSS to the district. Revise using district feedback.</li> <li>• Implement the revised EPSS immediately, and secure district and outside expertise as needed to ensure successful implementation. Provide systematic professional development aligned to the EPSS.</li> <li>• Assure compliance with all federal and state requirements of SINOI schools. This includes parent notification of status, for Title I schools; and notification of status through a public meeting for non-Title I schools. See Appendix K for compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Work with the school to identify an outside group or individual to conduct an external assessment of the school. Ensure that the assessment team uses the NMPED/PSB CLASS Assessment: School Improvement, including the data collection tools and forms. Focus on the areas in which AYP was not met.</li> <li>• Assist the school in revisions of its EPSS as needed, based on the results of the assessment and maintain documentation.</li> <li>• Ensure submission of the revised EPSS to NMPED/PSB and, if applicable Title I.</li> <li>• Provide technical assistance (including aligned professional development) to the school as it implements its EPSS. Secure outside expertise as needed to implement the plan. Monitor the assistance provided to ensure that it addresses the identified needs.</li> <li>• Assure in compliance with all federal requirements of SINOI schools including parent and public notification of status. See Appendix K for compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Provide training and tools for conducting assessments.</li> <li>• Provide lists of specialists who can lead or serve as team members for external assessments.</li> <li>• Receive and review EPSS revisions. Provide feedback to the district and school.</li> <li>• Provide templates for compliance requirements.</li> <li>• Assure compliance with all federal and state requirements.</li> <li>• Disseminate information on effective research-based interventions and strategies.</li> </ul>

❖ Indicates a new tool/initiative/requirement that will be implemented as resources become available. NMPED will work directly with districts to identify next steps leading to full implementation. (<http://www.ped.state.nm.us/div/psb/index.html>)

<sup>6</sup> *Ibid*, pg. 20

**Table 3- Corrective Action (CA)  
CLASS  
School Table of Responsibilities**

**Rationale Statement:**

**Identifying a school for corrective action signals the LEA's intention to take greater control of the school's management and to have a more direct hand in the decision-making.<sup>7</sup>**

AYP Designation	School Responsibilities	District Responsibilities	NMPED Responsibilities
Corrective Action (CA)	<ul style="list-style-type: none"> <li>❖ Participate in an instructional audit of areas where AYP was not met (e.g., students with disabilities, economically disadvantaged, reading/language arts, etc.).</li> <li>• With appropriate stakeholders and based on the results of the instructional audit, revise the EPSS.</li> <li>❖ Based on the instructional audit's recommendations, the school must also take at least one of the following corrective actions as directed by the LEA: provide scientifically-based professional development for all relevant staff; institute new curricula; extend length of school year or day; replace staff deemed relevant to the school's lack of progress; decrease management authority at the school; restructure the internal organization of the school; or appoint outside experts to advise the school on how to revise and strengthen the school improvement plan and how to address the specific issues underlying the school's continued inability to make AYP.</li> <li>• Submit revised EPSS to district.</li> <li>• Implement recommendations from the instructional audit as soon as possible. Use outside expertise from the district and school to assist with successful implementation. Provide</li> </ul>	<ul style="list-style-type: none"> <li>• In collaboration with the PED/PSB, select specialists from NMPED list of trained and qualified specialists to conduct an instructional audit. Provide funding for the instructional audit.</li> <li>• Participate in the audit by attending the entrance and exit meetings.</li> <li>• Assist the school in revisions of their EPSS based on the recommendations of the instructional audit. The LEA must help the school take at least one of the following corrective actions: provide scientifically-based professional development for all relevant staff; institute new curricula; extend length of school year or day; replace staff deemed relevant to the school's lack of progress; decrease management authority at the school; restructure the internal organization of the school; or appoint outside experts to advise the school on how to revise and strengthen the school improvement plan and how to address the specific issues underlying the school's continued inability to make AYP.</li> <li>• Secure a peer review of the school EPSS and revise again as needed.</li> <li>• Ensure submission of revised school EPSS to NMPED/PSB and, if applicable, to Title I.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Provide lists of content area, leadership, and assessment specialists who can lead or serve as team members for instructional audits.</li> <li>❖ Train external specialists to conduct instructional audits.</li> <li>❖ Provide appropriate tools.</li> <li>❖ In collaboration with the PED/PSB, select specialists from NMPED list of trained and qualified specialists to conduct instructional audits.</li> <li>• Review audit results and revised EPSS with specialists. Provide feedback to the school and district</li> <li>• Assure compliance with all federal and state requirements.</li> <li>• Disseminate information on effective research-based interventions and strategies.</li> </ul>

<sup>7</sup> *Ibid*, pg. 20

	<p>systematic professional development that is aligned to the EPSS.</p> <ul style="list-style-type: none"> <li>Assure compliance with all state and federal requirements of CA schools. This includes parent notification of status for Title I schools; and notification of status through a public meeting for non-Title I schools. See Appendix K for Title I compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>Secure resources to implement recommendations.</li> <li>As the school implements its EPSS, provide technical assistance (including professional development) that is directly aligned to the Instructional Audit.</li> <li>Secure outside expertise as needed to implement the plan and monitor the assistance provided to ensure that it addresses the identified needs.</li> <li>Assure in compliance with all federal requirement of CA schools including parent and public notification of status. See Appendix K for compliance requirements if needed.</li> </ul>	
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❖ Indicates a new tool/initiative/requirement that will be implemented as resources become available. NMPED will work directly with districts to identify next steps leading to full implementation. (<http://www.ped.state.nm.us/div/psb/index.html>)

**Table 3- Restructuring 1 (R1)  
CLASS  
School Table of Responsibilities**

**Rationale Statement:**

**If a school does not make AYP for five years, the LEA must create a plan to restructure the school. Generally speaking, under NCLB when a school is in restructuring status, the LEA must take intensive and far-reaching interventions to revamp completely the operation and governance of that school.<sup>8</sup>**

AYP Designation	School Responsibilities	District Responsibilities	NMPED Responsibilities
Restructuring 1 (R1)	<ul style="list-style-type: none"> <li>❖ Fully implement plan in response to instructional audit. Check for fidelity and engage in continuous improvement processes. Provide systematic professional development that is directly aligned to the Instructional Audit to promote success.</li> <li>• Work with district, NMPED, external specialists, and appropriate stakeholders to complete an Alternative Governance Plan (AGP). AGP must reflect one of three operations: Reopening as a charter school; Replacement of staff; implementation of a major restructuring of school's governance consistent with principles of restructuring. (NMAS 22-2C-7)</li> <li>• Revise EPSS to reflect the AGP.</li> <li>• Assure compliance with all federal requirements of R1 schools. This includes parent notification of status for Title I schools; and notification of status through a public meeting for non-Title I schools. See Appendix K for Title I compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Provide technical assistance (including professional development) and oversight to schools as they implement the EPSS based on the instructional audit. Provide feedback and help with corrections as needed.</li> <li>• Provide fiscal resources to school to engage in continuous improvement.</li> <li>• Work with school, NMPED, external specialists and appropriate stakeholders to complete an Alternative Governance Plan. AGP just reflect one of three options: Reopening as a charter school; Replacement of staff; Implementation of a major restructuring of school's governance consistent with principles of restructuring. (NMAS 22-2C-7)</li> <li>• Assure compliance with all federal requirements of R1 schools including parent and public notification of status. See Appendix K for Title I compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Provide oversight of district and school as they implement the EPSS based on the instructional audit.</li> <li>• Work with school, district, and external specialists to complete an Alternative Governance Plan. AGP must reflect one of three options: Reopening as a charter school; Replacement of staff; implementation of a major restructuring of school's governance consistent with principles of restructuring. (NMAS 22-2C-7)</li> <li>• Assure compliance with all federal and state requirements.</li> <li>• Disseminate information on effective research-based interventions and strategies.</li> </ul>

Indicates a new tool/initiative/requirement that will be implemented as resources become available. NMPED will work directly with districts to identify next steps leading to full implementation. (<http://www.ped.state.nm.us/div/psb/index.html>)

<sup>8</sup>Ibid. pg. 24.

**Table 3- Restructuring (R2) and beyond. To be repeated each year of designation.  
CLASS  
School Table of Responsibilities**

**Rationale Statement:**

**During year two of restructuring, while the LEA's plan is being implemented, the LEA should continue to provide the school with quality technical support and assistance that address the complexities of implementation.<sup>9</sup>**

AYP Designation	School Responsibilities	District Responsibilities	NMPED Responsibilities
Restructuring 2 (R2) and beyond. To be repeated each year of designation.	<ul style="list-style-type: none"> <li>❖ Repeat the instructional audit and review other interventions identified in SI2, CA, and R1 to determine which strategies were well implemented and are showing signs of success, and which strategies must be improved.</li> <li>• Review and revise the Alternative Governance Plan as needed, and fully implement.</li> <li>• Participate in intensive, onsite coaching and mentoring.</li> <li>• Assure compliance with all federal requirements of R2 schools. This includes parent notification of status for Title I schools, and notification of status for non-Title I schools. See Appendix K for Title I compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Repeat the instructional audit and review other interventions identified in SI2, CA, and R1 to determine which strategies were well implemented and are showing signs of success, and which strategies must be improved.</li> <li>• Assist school with review, revisions, and full implementation of the Alternative Governance Plan.</li> <li>• Assign instructional coaches and/or mentors to assist school in areas identified in audit.</li> <li>• Assure compliance with all federal requirements of R2 schools including parent and public notification of status. See Appendix K for Title I compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Develop NMPED specialized team with particular expertise to assist schools.</li> <li>• Assist school and district with full implementation of the Alternative Governance Plan.</li> <li>• Assure compliance with all federal and state requirements.</li> <li>• Disseminate information on effective research-based interventions and strategies.</li> </ul>

❖ Indicates a new tool/initiative/requirement that will be implemented as resources become available. NMPED will work directly with districts to identify next steps leading to full implementation. (<http://www.ped.state.nm.us/div/psb/index.html>)

## DISTRICTS IN NEED OF IMPROVEMENT (DINOI)

### Roles and Responsibilities

District roles and responsibilities are outlined in Table 4 (pages 17-22). It also lists the NMPED responsibilities in support of the district. What follows is the designation and the NMPED's rationale for its approach.

**District Improvement Year One (DI-1)** - A district that has been identified for improvement is required to complete a self-assessment or to contract with an external group to conduct an assessment of district practices. If the NMPED identifies a district for improvement, the district must develop or revise an improvement plan, no later than three months after the identification. In developing or revising the plan, the district must consult with parents, school staff, and others.

**District Improvement Year Two (DI-2)** - If the district does not make AYP at the end of District Improvement Year 1, the district enters DI 2 and an external assessment is required. If the NMPED identifies a district for improvement for a second year, the district must develop or revise an improvement plan, no later than three months after the identification. In developing or revising the plan, the district must consult with parents, school staff, and others.

**District Corrective Action Year 1 (D-CA 1)** - If the district still does not make AYP and is identified for improvement for another year, it must adopt one of the options required by law. Corrective Action is the collective name given to steps taken by a state education agency such as the NMPED that substantially and directly responds to serious instructional, managerial, and organizational problems in the district. These are the problems that jeopardize the likelihood that students will achieve proficiency in the core academic subjects of reading and mathematics.

**District Corrective Action Year 2 (D-CA 2)** - If improvement is still not made after a year of corrective action, the district is required to implement its district improvement plan using one of the three actions specified in NCLB. NMPED becomes more directive, specifying some of the changes that must be made, monitoring progress, and providing support.

This newly revised system will be fully implemented in the 2011-12 School Year. A transition plan to move from the current to the new system: *NMPED Interventions for Districts in Improvement – Transition Plan* (on PSB website <http://www.ped.state.nm.us/div/psb/index.html>).

**Table 4- District Improvement Year 1 (DI-1)  
CLASS  
District Table of Responsibilities**

<b>Rationale Statement:</b>		
<b>If the SEA identifies an LEA for improvement, the LEA must develop or revise an improvement plan, no later than three months after the identification. In developing or revising this plan, the LEA must consult with parents, school staff, and others.<sup>10</sup></b>		
<b>District System</b>	<b>DISTRICT Responsibilities</b>	<b>NMPED Responsibilities</b>
District Improvement Year 1 (DI-1)	<ul style="list-style-type: none"> <li>❖ Conduct a self-assessment or contract with an outside group or consultant(s) for an external assessment for the district. Use the NMPED/PSB CLASS Assessment: District Improvement, including the data collection tools, rubrics, and reporting format.</li> <li>• Revise the district EPSS based on the results of the assessment and in consultation with parents, school staff, and others. Report to local school board and submit to NMPED/PSB and Title I if applicable.</li> <li>• Implement the EPSS as quickly as possible but no later than the beginning of the following school year. Work with internal district specialists and outside support as needed to implement the plan. Provide systematic professional development, aligned with the EPSS, and fiscal support.</li> <li>• Assure compliance with all federal and state requirements of DI-1, including parent and public notification of status. See Appendix K for Title I compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Provide lists of specialists that can lead or serve as team members for external assessments.</li> <li>• Provide training and tools for conducting assessments.</li> <li>• Provide templates for compliance requirements.</li> <li>• Receive and review revised EPSS and provide feedback to the district.</li> <li>• Assure compliance with all federal and state requirements.</li> <li>• Disseminate information on effective research-based interventions and strategies.</li> <li>• Provide technical assistance to districts.</li> </ul>

❖ Indicates a new tool/initiative/requirement that will be implemented as resources become available. NMPED will work directly with Districts to identify next steps leading to full implementation. (<http://www.ped.state.nm.us/div/psb/index.html>)

<sup>10</sup> *LEA and School Improvement Non-Regulatory Guidance*. Student Achievement and School Accountability Programs Office of Elementary and Secondary Education. U.S. Department of Education. July 21, 2006. pg. 46.

**Table 4- District Improvement Year 2 (DI-2)  
CLASS  
District Table of Responsibilities**

**Rationale Statement:  
If the SEA identifies an LEA for improvement, the LEA must develop or revise an improvement plan, no later than three months after the identification. In developing or revising this plan, the LEA must consult with parents, school staff, and others.<sup>11</sup>**

District System	DISTRICT Responsibilities	NMPED Responsibilities
District Improvement Year 2 (DI-2)	<ul style="list-style-type: none"> <li>❖ Contract with an outside group or consultant(s) for an external assessment for the district. If a self-assessment was conducted in Year 1, conduct a full external assessment. If an external assessment was conducted in Year 1, conduct another assessment only for those areas in which AYP was not met for two consecutive years (i.e., for the content area and/or subgroups in which AYP was not met). Use the NMPED/PSB CLASS Assessment: District Improvement, including the data collection tools, rubrics, and reporting format.</li> <li>• Revise the district EPSS based on the results of the assessment, working with outside experts as needed to identify appropriate solutions to challenges. Report to local board of education and submit to NMPED/PSB and Title I.</li> <li>• Implement the revised EPSS immediately, and secure internal district and outside expertise as needed to ensure successful implementation. Provide systematic professional development, aligned with the EPSS, and fiscal support.</li> <li>• Assure compliance with all federal and state requirement of DI-2 including parent and public notification of status. See Appendix K for Title I compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Provide lists of specialists that can lead or serve as team members for external assessments.</li> <li>• Provide training and tools for conducting assessments.</li> <li>• Provide templates for compliance requirements.</li> <li>• Receive and review revised EPSS and provide feedback to the district</li> <li>• Assure compliance with all federal and state requirements.</li> <li>• Disseminate information on effective research-based interventions and strategies.</li> <li>• Provide technical assistance to districts.</li> </ul>

❖ Indicates a new tool/initiative/requirement that will be implemented as resources become available.

<sup>11</sup> *Ibid.*, pg. 46.

NMPED will work directly with districts to identify next steps leading to full implementation. (<http://www.ped.state.nm.us/div/psb/index.html>)

Table 4- District Corrective Action Year 1 (D-CA 1) CLASS District Table of Responsibilities		
Rationale Statement: Corrective Action is the collective name given to steps taken by an SEA that substantially and directly respond to serious instructional, managerial, and organizational problems in the LEA that jeopardize the likelihood that students will achieve proficiency in the core academic subjects of reading and mathematics. <sup>12</sup>		
District System	DISTRICT Responsibilities	NMPED Responsibilities
District Corrective Action Year 1 (D-CA 1)	<ul style="list-style-type: none"> <li>• In collaboration with NMPED, determine which of the following corrective actions will be planned and implemented: defer programmatic funds or reduce administrative funds; institute and fully implement a new curriculum based on state content standards that includes appropriate scientifically research-based professional development to all relevant staff; replace LEA personnel who are relevant to the inability of the LEA to make AYP.</li> <li>• Revise the district EPSS to reflect the corrective action to be implemented. Present revised plan to the local board of education and at a public meeting. Submit to NMPED/PSB and Title I.</li> <li>❖ Participate in a customized external audit of LEA programs as directed by NMPED. The audit will be conducted by outside specialists, (selected from a list of approved providers), NMPED staff, and/or district personnel and will focus on the grade spans, content areas, and subpopulations that did not make AYP. Use the audit to revise the district EPSS as needed.</li> </ul>	<ul style="list-style-type: none"> <li>• In collaboration with the district, determine which of the following corrective actions will be planned and implemented: defer programmatic funds or reduce administrative funds; institute and fully implement a new curriculum based on state content standards that includes appropriate scientifically research-based professional development to all relevant staff; replace LEA personnel who are relevant to the inability of the LEA to make AYP.</li> <li>❖ Assure a customized external audit of LEA programs. In collaboration with the district, assemble a team of outside specialists, NMPED staff, and/or district personnel and focus on the grade spans, content areas, and subpopulations that did not make AYP.</li> </ul>

<sup>12</sup> *Ibid.* pg. 48.

	<ul style="list-style-type: none"> <li>• Work with content specialists to implement the EPSS through systematic, job embedded professional development and provide fiscal support for implementation.</li> <li>• Request technical assistance from NMPED as needed.</li> <li>• Provide NMPED with regularly (quarterly) updates on EPSS implementation progress.</li> <li>• Assure compliance with all federal and state requirements of D-CA 1. Includes parent and public notification of status. See appendix K for Title I compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>• Receive and review the revised district EPSS and provide feedback.</li> <li>• Provide technical assistance to the district.</li> <li>• Assure compliance with all federal and state requirements.</li> </ul>
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❖ Indicates a new tool/initiative/requirement that will be implemented as resources become available. NMPED will work directly with districts to identify next steps leading to full implementation. (<http://www.ped.state.nm.us/div/psb/index.html>)

**Table 4- District Corrective Action Year 2 (D-CA 2) and beyond. To be repeated each year of designation.  
CLASS  
District Table of Responsibilities**

<b>Rationale Statement:</b>		
<b>Corrective Action is the collective name given to steps taken by an SEA that substantially and directly respond to serious instructional, managerial, and organizational problems in the LEA that jeopardize the likelihood that students will achieve proficiency in the core academic subjects of reading and mathematics.<sup>13</sup></b>		
<b>District System</b>	<b>DISTRICT Responsibilities</b>	<b>NMPED Responsibilities</b>
District Corrective Action Year 2 (D-CA 2) and beyond. To be repeated each year of designation.	<ul style="list-style-type: none"> <li>• Determine why the current EPSS is not effective. Check for fidelity and engage in continuous improvement processes. Detail action steps to improve efforts. Provide systematic professional development that is directly aligned with the instructional audit to promote success.</li> <li>• Revise the EPSS as needed. Report to local school board and submit to NMPED/PSB and Title I.</li> <li>• Fully implement the revised EPSS.</li> <li>❖ Work with content specialists to implement the revised EPSS through systematic, job embedded professional development, and provide fiscal support for implementation.</li> <li>• Request technical assistance from NMPED as needed.</li> <li>❖ Work with external reviewers approved by NMPED to monitor and advise.</li> <li>• Provide NMPED with regularly (quarterly) EPSS implementation progress.</li> <li>• Assure compliance with all federal and state requirements of D-CA 2. Includes parent and public notification of status. See Appendix K for Title I compliance requirements if needed.</li> </ul>	<ul style="list-style-type: none"> <li>❖ Provide list of approved providers/external reviewers.</li> <li>❖ Monitor the work of the district and external reviewers to assure progress is being made.</li> <li>• Review the revised district EPSS and provide feedback.</li> <li>• Provide technical assistance to the district.</li> <li>• Assure compliance with all federal and state requirements.</li> </ul>

❖ Indicates a new tool/initiative/requirement that will be implemented as resources become available.  
NMPED will work directly with districts to identify next steps leading to full implementation. (<http://www.ped.state.nm.us/div/psb/index.html>)

<sup>13</sup> *Ibid.*, pg. 48

## IMPROVEMENT PLANS

### **Educational Plans for Student Success (EPSS)**

NMPED requires each district to develop, implement, monitor, and evaluate the Educational Plan for Student Success (EPSS) on an annual basis. The fall EPSS should be submitted to PSB on or before November 3, 2009 which is 90 days after being notified of AYP results. Additionally, per Section 1116(b)(c)(H), the district shall ensure that a site-level EPSS is developed by each school within the district and by each charter school for which the district is the chartering agency. State-chartered charter schools shall develop a site-level EPSS. Districts with fewer than 600 students may write only one EPSS for the entire district; however, a district with a school in or receiving a school improvement status classification is not eligible for this option. These schools must have a school level EPSS. Districts with more than 600 students may request this waiver if they can offer compelling reasons for the Secretary of Education's consideration and all schools in the district are meeting AYP.<sup>14</sup>

The EPSS is a strategic plan for continuous improvement. It contains an action plan specifying how the district/school will accomplish the identified goals including interventions, strategies, plans, and evaluations for each action. Goals must be:

- student centered and supported by strategies, resources, and systems alignment;
- annual and measurable, using baseline assessment data; and,
- written to address gaps in student achievement as measured by the New Mexico Standards Based Assessment (NMSBA) and to align with Annual Measurable Objective (AMO) targets.

Plans must be submitted to the Priority Schools Bureau by June 14<sup>th</sup> for the following academic year. Revisions can be made prior to November 1 of each academic year (within 90 days of being notified as a School or District in Need of Improvement). The revised EPSS is then re-submitted to the Priority Schools Bureau. Districts are responsible for reporting progress on a regular basis. See Table of Responsibilities for details on reporting.

### **School Improvement Planning**

The district is responsible for initiating the school improvement process for all schools in status. The following steps should be followed for developing a school improvement plan (EPSS):

#### **Step 1: Convene a Planning Committee**

The committee must include the principal, at least one faculty member, one parent (who is not a member of the school staff), and one representative from the LEA (who may be the Title I director). These are minimum requirements. The district must convene a planning team that includes enough members in the committee to represent all interested parties.

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<sup>14</sup> Primary and Secondary Education, Standards for Excellence 6.29.1.8.A NMAC

## **Step 2: Conduct the CLASS Assessment: School Improvement**

The improvement process begins with a thorough assessment. The assessment has two components:

- Data collection and analyses
- Connecting findings to action planning for improvement

As a key first step, baseline data are collected in the areas of student achievement, organizational effectiveness and classroom practice. In addition to AYP data analysis, schools are encouraged to use other assessment data, survey results, demographic information, and evaluations of existing programs. Look for root causes that may be limiting certain groups of students. A tool to help schools identify root causes is available on the PSB website (<http://www.ped.state.nm.us/div/psb/index.html>).

Using the CLASS Assessment: School Improvement, found in Appendix D, the school planning team then examines school practices and policies in key areas that have been proven to positively impact student achievement, i.e., leadership, teaching and learning, culture and collaborative relationships. The school planning team must identify and provide evidence to support its rating on each indicator. Appendix I provides examples of evidence that might be available for consideration to justify the ratings in each category. Appendix I also identifies which sources of data inform ratings for each indicator. Data sources include:

- document review
- student achievement data
- interviews, focus groups

Appendix J provides protocols and tools for conducting interviews, classroom observations, and focus groups.

Once the data have been gathered, the planning committee, including external specialists as appropriate, must systematically sift through all the data to determine the areas of greatest need and address this need in the improvement plan/EPSS.

## **Step 3: Develop Goals, Strategies, Action Steps, and Tasks**

After completing the CLASS Assessment: School Improvement, the committee will have identified areas that hinder student achievement. These areas should lead to the setting of targeted goals/strategic objectives that are specific, measurable, attainable, realistic, and time-based (SMART). These targeted goals/strategic objectives must be focused on specific improvements in the content areas and for the sub-groups in which the school was identified for improvement.

For each goal, determine strategies/objectives that are most likely to help the school meet its improvement goals. A strategy/objective is a general description of a process a district or school will take to reach the student achievement goal. Each goal may have several strategies/objectives.

In selecting strategies, the committee should consider:

- The direct relationship between the strategies, goals, and desired outcomes.
- The research supporting the effectiveness of chosen strategies.
- The likelihood that chosen strategies will be effective in their school for their population and needs.
- Professional development that will be needed.

An action step is a specific action or activity that will lead to the implementation of the strategy and achievement of the goal. The action step includes specifics on timelines, persons responsible, costs and budget sources for each action. Each strategy may have several action steps.

A task is a specific action/activity, attributed to a specific person, which leads to the completion of an action step. Tasks are optional, and each action step may have multiple tasks.

#### **Step 4: Include Professional Development**

Professional development is a required part of each school improvement plan/EPSS. This professional development must be aligned with the school's chosen goals. It should be based on scientific research and proven to have an impact on student achievement. Professional development should be offered to paraprofessionals as well as professionals to ensure consistency in knowledge and practice among all instructional staff.

The professional development plan must include a mentoring component for new teachers. Experienced educators, core-content coaches, or Title I staff may provide the mentoring component. This component must be clear in the plan.

Professional development must target provision of services to all students by highly qualified teachers. The plan must indicate how the school will comply with this aspect of the law.

#### **Step 5: Involve Parents**

Parents are an integral part of the success of every child. Title I requires each school to include parents in the education of their children in multiple ways. Parents must be informed of the school's improvement status. This communication must be clear, include consequences of the designations such as choice and supplemental services, and be in a language and format easily accessible to parents.

All New Mexico schools are required to have Advisory School Councils that include parents and community members. NM Statutes Annotated (NMSA) 22-5-16; (HB 212, Section 27) include the following requirements:

1. An Advisory School Council must be created in every public school to assist the school principal with school-based decision making. (align)
2. The purpose of the Advisory School Council is to address issues of budget, student assessment, data, policy relating to instructional issues and curricula, parent and community involvement, and business partnerships. (NMSA 22-5-16, HB 212).

3. The council shall give advice, consistent with state and school district rules and policies, on policies relating to instructional issues and curricula and on proposed and actual budgets.
4. The council shall have membership equitably balanced among school employees, parents, and community members, including the business community.
5. The council shall be created and elected in accordance with local governing board rule.
6. The council shall develop and implement creative ways to involve parents in schools
7. The council shall coordinate, where appropriate, existing work force development boards or career technical education advisory councils to connect students and academic programs to business.
8. The council shall serve as champion for students in building support for schools and encouraging greater community participation in public schools.
9. The district administration shall monitor the participation of the Advisory School Council at each school site and be able to provide evidence and schedules of those periodic meetings.

Plans to provide or enhance these services must be described in the School EPSS. Along with the submission of the EPSS, the district must maintain documentation of the previously held public meetings for each site including a sign-in sheet of those in attendance, an agenda, and a list of suggestions from parents and the public on how to improve the school.

#### **Step 6: Examine the Budget**

The school improvement budget must reflect a commitment to the goals and strategies the school is adopting to improve student achievement. Federal funds must be used to supplement, not supplant, the regular school program. An amount equal to 10% of the school-wide Title IA allocation must be spent on professional development.

#### **Step 7: Submit the Plan to the District**

The school should follow its district processes for this step.

#### **School Restructuring Plans (for schools in R1, R2, and beyond)**

According to NCLB and state law, a school in restructuring must develop a plan that includes one of the following “alternative governance” arrangements:

1. Reopen as a public charter school;
2. Replace all/most of the staff;
3. Implement other major restructuring of the school’s governance, e.g.
  - a. Decrease school-based management/increase LEA oversight

- b. Close and re-open as a focus/theme school
- c. Reconstitute into smaller autonomous learning communities
- d. Dissolve the school
- e. Pair the school with higher performing school
- f. Expand or narrow the grades served

The plan must focus on accountability, teacher quality, parental involvement, and evidence-based instruction. The process must be substantial enough to transform and sustain change. It must also take into consideration:

- Staff development
- Curriculum
- Instruction
- Use of technology
- Assessment
- Other factors essential for success

Throughout the restructuring process, the district must continue to provide technical assistance to the school. It must also provide students with the option to transfer to another school. Title I schools must make supplemental educational services available to eligible students and use not more than 5% of Title I allocation for financial incentives and rewards. The district is responsible for implementing an alternative governance plan.

### **District Improvement Planning**

After a district has been notified that it has been identified for improvement, it must develop or revise a district EPSS, in consultation with parents, school staff and others. After it is developed, the district is required to implement the plan as soon as possible.

The plan has specific requirements. The plan must:

- be developed in consultation with parents, school staff and others;
- incorporate strategies that are grounded in scientifically based research;
- incorporate strategies that will strengthen instruction in core academic subject areas in schools served by the LEA;
- identify actions that have the greatest likelihood of improving the achievement of participating children in meeting New Mexico's student academic achievement standards;
- address professional development needs by committing to spend for professional development not less than 10% of Subpart A funds for each year of identification for improvement;
- include specific measurable achievement goals for specific subgroups of students (all public school students, economically disadvantaged, major racial and ethnic groups and students with disabilities) that are consistent with AYP;
- address the fundamental teaching and learning needs in the schools in the district;
- address the specific problems of low-achieving students, including a determination of why the district's previous plan failed to increase student academic achievement;
- incorporate activities before school, after school, during the summer, and during any extension of the school year as appropriate;

- specify the responsibilities of the PED and the district under the plan, including technical assistance the PED must provide to develop and implement the plan, and work with schools needing improvement; and,
- include strategies to promote effective parental involvement in the schools served by the district.

A *District Improvement Plan Checklist* which includes citations from NCLB can be found on the PSB website (<http://www.ped.state.nm.us/div/psb/index.html>). It is strongly recommended that a district in improvement follow the steps outlined in the section titled "School Improvement Planning" to develop its district improvement plan, (EPSS). A district EPSS is not simply a "roll up" of its school plans. Instead, it focuses on district roles and responsibilities and the District Table of Responsibilities. The CLASS Assessment: District Improvement found in Appendix E describes the specific functions that districts have that are separate from those of schools. The district should use this tool to assess how it functions and identify strengths and weaknesses. The district EPSS should incorporate strategies to address identified weaknesses. The *District Table of Responsibilities* outlines the district responsibilities in the improvement process.

In addition, districts in Corrective Action (CA) must:

1. Notify PED about which of the three actions required under NCLB will be implemented: (a) defer programmatic funds or reduce administrative funds; (b) institute and fully implement a new curriculum based on state content standards that includes appropriate scientifically research-based development to all relevant staff; or (c) replace district personnel who are relevant to the inability of the LEA to make AYP.
2. Conduct an external assessment of district programs as directed by NMPED.
3. Revise the district EPSS to reflect the corrective action and findings of the assessment.
4. Present the plan to the local board of education at a public meeting.
5. Submit the revised EPSS and quarterly progress report(s) to NMPED.

Note: During 2009-2010, 26 districts are participating in a pilot WEB EPSS project. These districts are required to write their EPSS in a somewhat different form on-line where the PSB is able to monitor the implementation of the plan much more easily than in the past. Districts are still expected to go through the planning process described here, and their EPSS must meet all of the NCLB requirements. Putting the EPSS on-line can help make the plan a living document rather than one that sits on a shelf. In addition, the updating for schools and districts and the monitoring for the PSB become much simpler. The expectation is that all districts and schools will be using the on-line EPSS by 2010- 2011. At that point, this document will be revised.

## RECOGNITION

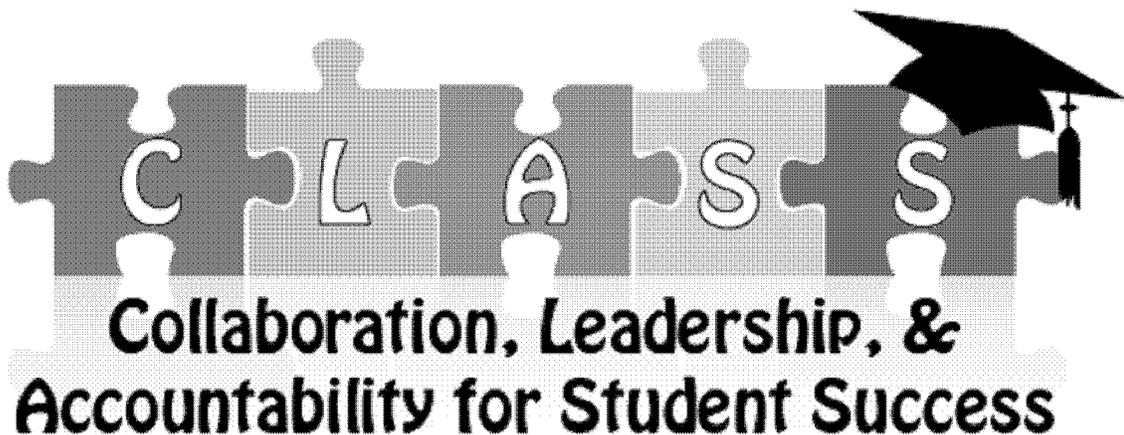
The *School and District Improvement Framework* identifies the importance of acknowledging and rewarding schools for taking the initiatives necessary to raise student achievement.

NMPED will actively identify schools and districts which are making progress and recognize their achievement through incentives and celebrations. For example: "Schools on the Rise" Day: is schedule on February 10, 2010 which recognizes schools that have exited status and schools that have moved into delay (or delayed) status.

**PUBLIC EDUCATION DEPARTMENT WEBSITE:** <http://ped.state.nm.us>

**Priority Schools Bureau webpage:** <http://www.ped.state.nm.us/div/psb>

- Current information, press releases, school and district recognitions
- Templates
- School and District Improvement Framework
- Forms, procedures, schedules, recognitions, invitations
- School/District Improvement Framework--Volume II (Appendices)





## Appendix E-2-1

### USDOE Approved Definition of Persistently Failing Schools

## Identification criteria that New Mexico used for the definition of “persistently lowest-achieving schools”

*The definition below is approved and certified as of March, 2010.*

### 1. Tier I

- a. Title I and receiving funds
- b. In improvement (SI-1 to R-2)
  - i. Lowest achieving 5% or 5 schools whichever greater
  - ii. HS with cohort grad rate < 60% currently and historically

### 2. Tier II

- a. Title I secondary schools eligible but not funded
- b. Lowest achieving 5% or 5 schools whichever greater
- c. HS with cohort grad rate < 60% currently and historically

### 3. Definition of a Secondary School in New Mexico- 22-1-3. Definitions; public schools; classifications, as used in the Public School Code [22-1-1 NMSA 1978]:

- a. "secondary school" means a public school providing instruction for grades nine through twelve, unless there is a junior high school program approved by the state board [department], in which case it means a public school providing instruction for grades seven through twelve;
- b. "junior high school" means a public school providing a junior high school program approved by the state board [department] for grades seven through nine, or for grades seven and eight; and
- c. "high school" means a public school providing instruction for any of the grades nine through twelve, unless there is a junior high school program approved by the state board [department] for grades seven through nine, in which case it means a public school providing instruction for any of the grades ten through twelve.

### 4. Persistently Lowest achieving was defined as

- a. The *All Students* subgroup, regardless of FAY
- b. “Low Achieving”
  - i. Percent proficient were converted to percentile ranks (0-100)
  - ii. Percentile ranks (Reading & Math) were averaged for 5 years (2005-2009)
  - iii. Percentiles were averaged with equal weighting for each
- c. “Persistently”
  - i. Growth was established as the gain or loss in percent proficient from contiguous years (2005-2009)
  - ii. Gains and losses for the 4 improvement periods were averaged
  - iii. Schools must have a minimum of 3 years worth of data (2 improvement periods) to get a growth score

## **5. Graduation was defined as:**

- a. The *All Students* subgroup
- b. Rates for the last 3 available years (grads of 2006, 2007, and 2009) were converted to percentile ranks; required because the methodology of rate calculation differed
- c. Percentile ranks were flagged when  $\leq 60\%$ ; in the only cohort year (2009), 60% correlated with approximately the 58th percentile.

## **6. Compilation**

- a. Two separate lists were established for Tier I and Tier II
- b. Schools were ranked on the averaged Reading/Math percentile rank
- c. Schools were flagged with growth  $\leq 1\%$
- d. Schools were flagged with grad rates persistently  $\leq 60\%$
- e. The rank-ordered list was compiled from
  - i. The lowest ranking schools
  - ii. That met the conditions of c. and/or d.
- f. New Mexico will exclude, from the pool of schools from which it identifies the persistently lowest-achieving schools for Tier I and Tier II, any school in which the total number of students in the “all students” group in the grades assessed [who were enrolled in the school for a full academic year as that term is defined in New Mexico’s Accountability Workbook] is less than 25. The minimum group size of 25 was established for Adequate Yearly Progress (AYP) subgroups in 2003, and was a compromise between the number needed for statistical integrity, and the number needed to hold all schools, especially smaller schools, accountable for student achievement.

***The definition below is approved and certified as of March, 2010.***

**School Improvement Grants  
Application**

**Section 1003(g) of the  
Elementary and Secondary Education Act**

**CFDA Numbers: 84.377A; 84.388A**



U.S. Department of Education  
Washington, D.C. 20202

OMB Number: 1810-0682  
Expiration Date: 06/30/2010

**Paperwork Burden Statement**

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1810-0682. The time required to complete this information collection is estimated to average 100 hours per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate or suggestions for improving this form, please write to: U.S. Department of Education, Washington, D.C. 20202-4537.

## SCHOOL IMPROVEMENT GRANTS

### **Purpose of the Program**

School Improvement Grants, authorized under section 1003(g) of Title I of the Elementary and Secondary Education Act of 1965 (Title I or ESEA), are grants, through State educational agencies (SEAs), to local educational agencies (LEAs) for use in Title I schools identified for improvement, corrective action, or restructuring that demonstrate the greatest need for the funds and the strongest commitment to use the funds to provide adequate resources in order to raise substantially the achievement of their students so as to enable the schools to make adequate yearly progress and exit improvement status. Under the final requirements, as amended through the interim final requirements published in the Federal Register in January 2010 (final requirements, attached as Appendix A), school improvement funds are to be focused on each State's "Tier I" and "Tier II" schools. Tier I schools are a State's persistently lowest-achieving Title I schools in improvement, corrective action, or restructuring and, if a State so chooses, certain Title I eligible elementary schools that are as low achieving as the State's other Tier I schools. Tier II schools are a State's persistently-lowest achieving secondary schools that are eligible for, but do not receive, Title I, Part A funds and, if a State so chooses, certain additional Title I eligible secondary schools that are as low achieving as the State's other Tier II schools or that have had a graduation rate below 60 percent over a number of years. An LEA may also use school improvement funds in Title I schools in improvement, corrective action, or restructuring that are not identified as persistently lowest-achieving schools and, if a State so chooses, certain additional Title I eligible schools ("Tier III schools"). (See Appendix C for a chart summarizing the schools included in each tier.) In the Tier I and Tier II schools an LEA chooses to serve, the LEA must implement one of four school intervention models: turnaround model, restart model, school closure, or transformation model.

### **Availability of Funds**

For fiscal year (FY) 2009, there is \$3.546 billion available for School Improvement Grants under section 1003(g): \$546 million through the Department of Education Appropriations Act, 2009; and \$3 billion through the American Recovery and Reinvestment Act of 2009 (ARRA).

FY 2009 school improvement funds are available for obligation by SEAs and LEAs through September 30, 2011. In its application for these funds, an SEA may request a waiver of the period of availability to permit the SEA and its LEAs to obligate the funds through September 30, 2013.

### **State and LEA Allocations**

Each State (including the District of Columbia and Puerto Rico), the Bureau of Indian Education, and the outlying areas are eligible to apply to receive a School Improvement Grant. The Department will allocate school improvement funds in proportion to the funds received by the States, the Bureau of Indian Education, and the outlying areas, respectively, for the fiscal year (*e.g.*, FY 2009) under Parts A, C, and D of Title I of the ESEA.

An SEA must allocate at least 95 percent of its school improvement funds directly to LEAs in accordance with the final requirements (summarized in Appendix B). The SEA may retain an amount not to exceed

five percent for State administration, evaluation, and technical assistance, which the Department has awarded to each SEA.

### **Consultation with the Committee of Practitioners**

Before submitting its application for a School Improvement Grant to the Department, an SEA must consult with its Committee of Practitioners established under section 1903(b) of the ESEA regarding the rules and policies contained therein. The Department recommends that the SEA also consult with other stakeholders such as potential external providers, teachers' unions, and business, civil rights, and community leaders that have an interest in its application.

### **State Application Process**

To apply for a School Improvement Grant, an SEA must submit an application to the Department. This revised School Improvement Grant application form is available on the Department's Web site at: <http://www.ed.gov/programs/sif/applicant.html>.

Please note that an SEA's submission must include the following attachments, as indicated on the application form:

- A list, by LEA, of the State's Tier I, Tier II, and Tier III schools.
- A copy of the SEA's LEA application form that LEAs will use to apply to the SEA for a School Improvement Grant.
- If the SEA seeks any waivers through its application, a copy of the notice it provided to LEAs and a copy of any comments it received from LEAs as well as a copy of, or link to, the notice the SEA provided to the public. **(Please see NMPED Appendix F)**

*Electronic Submission:* The Department strongly prefers to receive an SEA's School Improvement Grant application electronically. The SEA should submit it to the following address:

[school.improvement.grants@ed.gov](mailto:school.improvement.grants@ed.gov)

In addition, the SEA must submit a paper copy of the cover page signed by the SEA's authorized representative to the address listed below.

*Paper Submission:* In the alternative, an SEA may submit the original and two copies of its School Improvement Grant application to the following address:

Dr. Zollie Stevenson, Jr., Director  
Student Achievement and School Accountability Programs  
U.S. Department of Education  
400 Maryland Avenue, SW, Room 3W320  
Washington, DC 20202-6132

Due to potential delays in processing mail sent through the U.S. Postal Service, SEAs are encouraged to use alternate carriers for paper submissions.

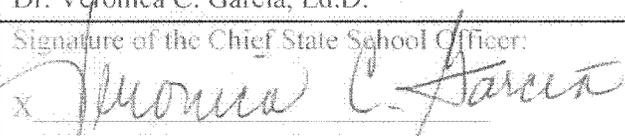
**Application Deadline**

Applications are due on or before **February 16, 2010**.

**For Further Information**

If you have any questions, please contact Dr. Zollie Stevenson, Jr. at (202) 260-0826 or by e-mail at [Zollie.Stevenson@ed.gov](mailto:Zollie.Stevenson@ed.gov).

APPLICATION COVER SHEET  
SCHOOL IMPROVEMENT GRANTS

<p>Legal Name of Applicant:</p> <p>New Mexico Public Education Department</p>	<p>Applicant's Mailing Address:</p> <p>300 Don Gaspar Santa Fe, NM 87501</p>
<p>State Contact for the School Improvement Grant</p> <p>Name: Dr. Sheila Hyde</p> <p>Position and Office: Assistant Secretary of Education, Quality Assurance &amp; Systems Integration</p> <p>Contact's Mailing Address:</p> <p>Room 203 300 Don Gaspar Santa Fe, NM 87501</p> <p>Telephone: 505-827-6517 or 505-795-0177</p> <p>Fax: 505-827-4242</p> <p>Email address: <a href="mailto:sheila.hyde@state.nm.us">sheila.hyde@state.nm.us</a></p>	
<p>Chief State School Officer (Printed Name):</p> <p>Dr. Veronica C. Garcia, Ed.D.</p>	<p>Telephone: 505-827-6688</p>
<p>Signature of the Chief State School Officer:</p> <p>x </p>	<p>Date:</p> <p>2.10.08</p>
<p>The State, through its authorized representative, agrees to comply with all requirements applicable to the School Improvement Grants program, including the assurances contained herein and the conditions that apply to any waivers that the State receives through this application.</p>	

## PART I: SEA REQUIREMENTS

As part of its application for a School Improvement Grant under section 1003(g) of the ESEA, an SEA must provide the following information.

**A. ELIGIBLE SCHOOLS:** An SEA must provide a list, by LEA, of each Tier I, Tier II, and Tier III school in the State. (A State's Tier I and Tier II schools are its persistently lowest-achieving schools and, if the SEA so chooses, certain additional Title I eligible schools that are as low achieving as the State's persistently lowest-achieving schools or that have had a graduation rate below 60 percent over a number of years.) In providing its list of schools, the SEA must indicate whether a school has been identified as a Tier I or Tier II school solely because it has had a graduation rate below 60 percent over a number of years. In addition, the SEA must indicate whether it has exercised the option to identify as a Tier I, Tier II, or Tier III school a school that was made newly eligible to receive SIG funds by the Consolidated Appropriations Act, 2010.

Along with its list of Tier I, Tier II, and Tier III schools, the SEA must provide the definition that it used to develop this list of schools. If the SEA's definition of persistently lowest-achieving schools that it makes publicly available on its Web site is identical to the definition that it used to develop its list of Tier I, Tier II, and Tier III schools, it may provide a link to the page on its Web site where that definition is posted rather than providing the complete definition.

**Link to Definition:** see definition below table

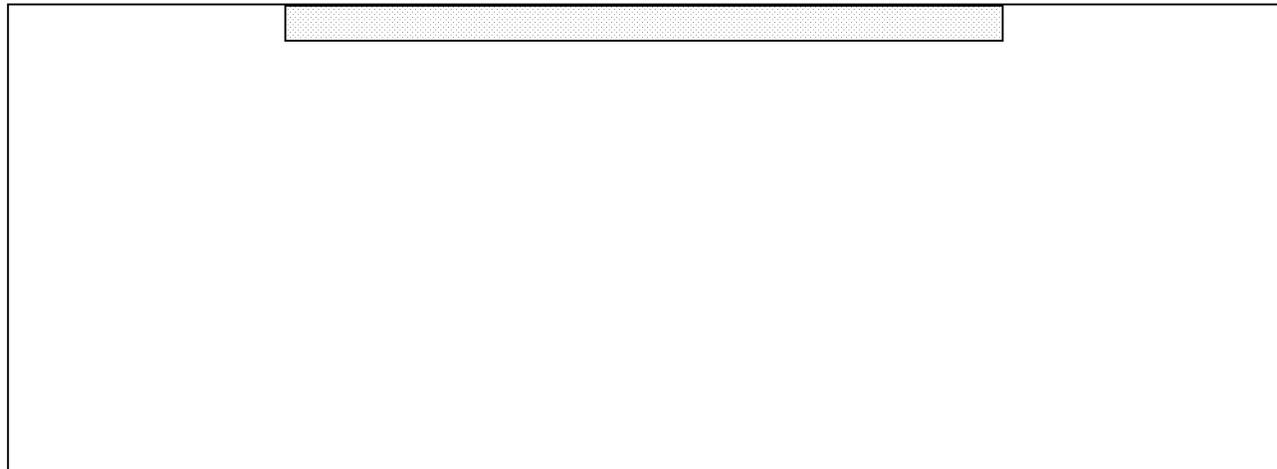
DISTRICT	SCHOOL NAME	NCIS ID #	TIER I	TIER II	TIER III	GRAD RATE
Jemez Mountain	Lybrook Elementary	350138000371	x			
Gallup-McKinley	Church Rock Elementary	350111000299	x			
APS Charter	El Camino Real	350006000854	x			
Gallup-McKinley	Navajo Elementary	350111000309	x			
Dulce	Dulce	350081000716	x			

\* As noted above, an SEA must identify newly eligible schools on its list only if it chooses to take advantage of this option.

	Middle						
Gallup-McKinley	Tohatchi Middle	350111000664	x				
Cuba	Cuba High	350066000234	x			Below 60%	
Santa Fe	Ramirez Thomas Elementary	350237000887	x				
Central	Naschitti Elementary	350039000182	x				
Gallup-McKinley	Crownpoint High	350111000301	x			Below 60%	
Pecos	Pecos Middle	350201000706	x				
Central	Newcomb High	350039000654	x			Below 60%	
Deming	Bell Elementary	350069000236	x				
Gallup-McKinley	Navajo Pine High	350111000310	x			Below 60%	
Grants-Cibola	Laguna-Acoma High	350117000330	x			Below 60%	
APS	Ernie Pyle Middle	350006000052	x				
Gallup-McKinley	Crownpoint Elementary	350111000300	x				
West Las Vegas	Valley Middle	350156000416	x				
Gallup-McKinley	Stagecoach Elementary	350111030020	x				
Socorro	R. Sarracino Middle	350246000572	x				

Silver	Silver High	350243000564		x		Below 60%	
Moriarty	Moriarty High	350189000468		x		Below 60%	
Los Lunas	Los Lunas High	350168000439		x		Below 60%	
Alamagordo	Alamagordo High	350003000799		x		Below 60%	
Farmington	Farmington High	350099000284		x		Below 60%	
Albuquerque Public Schools	Valley High	350006000116		x		Below 60%	
Albuquerque Public Schools	Manzano High	350006000082		x		Below 60%	
Albuquerque Public Schools	Del Norte High	350006000044		x		Below 60%	
Gadsden	Santa Teresa High	350108000323		x		Below 60%	
Vaughn	Vaughn Elementary	350000100607			x		
Zuni	Twin Buttes High	350280000677			x		
Grants-Cibola	Seboyeta Elementary	350117000337			x		

An SEA should attach a table with this information to its School Improvement Grant application. If an SEA is providing the definition it used to develop its list of Tier I, Tier II, and Tier III schools rather than a link to its definition of persistently lowest-achieving schools, it should also attach the definition to its application.



**Identification criteria that New Mexico used for the definition of “persistently lowest-achieving schools”:**

**1. Tier I**

- a. Title I and receiving funds
- b. In improvement (SI-1 to R-2)
  - i. Lowest achieving 5% or 5 schools whichever greater
  - ii. HS with cohort grad rate < 60% currently and historically

**2. Tier II**

- a. Title I secondary schools eligible but not funded
- b. Lowest achieving 5% or 5 schools whichever greater
- c. HS with cohort grad rate < 60% currently and historically

**3. Definition of a Secondary School in New Mexico- 22-1-3. Definitions; public schools; classifications, as used in the Public School Code [22-1-1 NMSA 1978]:**

- a. "secondary school" means a public school providing instruction for grades nine through twelve, unless there is a junior high school program approved by the state board [department], in which case it means a public school providing instruction for grades seven through twelve;
- b. "junior high school" means a public school providing a junior high school program approved by the state board [department] for grades seven through nine, or for grades seven and eight; and
- c. "high school" means a public school providing instruction for any of the grades nine through

twelve, unless there is a junior high school program approved by the state board [department] for grades seven through nine, in which case it means a public school providing instruction for any of the grades ten through twelve.

**4. Persistently Lowest achieving was defined as**

- a. The *All Students* subgroup, regardless of FAY
- b. “Low Achieving”
  - i. Percent proficient were converted to percentile ranks (0-100)
  - ii. Percentile ranks (Reading & Math) were averaged for 5 years (2005-2009)
  - iii. Percentiles were averaged with equal weighting for each
- c. “Persistently”
  - i. Growth was established as the gain or loss in percent proficient from contiguous years (2005-2009)
  - ii. Gains and losses for the 4 improvement periods were averaged
  - iii. Schools must have a minimum of 3 years worth of data (2 improvement periods) to get a growth score

**5. Graduation was defined as:**

- a. The *All Students* subgroup
- b. Rates for the last 3 available years (grads of 2006, 2007, and 2009) were converted to percentile ranks; required because the methodology of rate calculation differed
- c. Percentile ranks were flagged when  $\leq 60\%$ ; in the only cohort year (2009), 60% correlated with approximately the 58th percentile.

**6. Compilation**

- a. Two separate lists were established for Tier I and Tier II
- b. Schools were ranked on the averaged Reading/Math percentile rank
- c. Schools were flagged with growth  $\leq 1\%$
- d. Schools were flagged with grad rates persistently  $\leq 60\%$
- e. The rank-ordered list was compiled from
  - i. The lowest ranking schools

ii. That met the conditions of c. and/or d.

f. New Mexico will exclude, from the pool of schools from which it identifies the persistently lowest-achieving schools for Tier I and Tier II, any school in which the total number of students in the “all students” group in the grades assessed [who were enrolled in the school for a full academic year as that term is defined in New Mexico’s Accountability Workbook] is less than 25. The minimum group size of 25 was established for Adequate Yearly Progress (AYP) subgroups in 2003, and was a compromise between the number needed for statistical integrity, and the number needed to hold all schools, especially smaller schools, accountable for student achievement.

New Mexico’s minimum group size is smaller, and more rigorous, than AYP standards set by most other states. To reliably measure progress in schools with fewer than 25 students would not be statistically defensible. In sum, New Mexico elected to exclude the 3 schools that meet this definition in order to ensure that the identification of a school is both valid and reliable based on a minimum number of students and does not reveal personally identifiable information about individual students in the school.

NMPED exercised the ability to exclude three small schools that met the criteria as defined in the latest guidance from USDOE.

The three schools are:

District	Name of school	Size	Proficiency Rate
Vaughn	Vaughn Elementary	37 Students; 23 FAY Tested	AVG 34% Reading; 11% Math (5 years)
Grants-Cibola	Seboyeta Elementary	23 Students; 20 FAY Tested	AVG 34% Reading; 10% Math (5 years)
Zuni	Twin Buttes High	9 Students: 4 FAY Tested	Too few to include rate without FERPA violation

Those three schools are listed as Tier III schools.

**Public Notice for the N-Size Waiver: <http://www.ped.state.nm.us/titleI/dl10/Memo-Notice%20of%20intent%20to%20request%20n-size%20waivers%20under%20SIG%20grant.pdf>**

**NMPED will submit comments subsequent to the application submission as allowed by USDOE.**

See Appendix F for the Waiver Request Letter.

**B. EVALUATION CRITERIA: An SEA must provide the criteria it will use to evaluate the information set forth below in an LEA's application for a School Improvement Grant.**

**Part 1**

**The three actions listed in Part 1 are ones that an LEA must take prior to submitting its application for a School Improvement Grant. Accordingly, the SEA must describe, with specificity, the criteria the SEA will use to evaluate an LEA's application with respect to each of the following actions:**

**(1) The LEA has analyzed the needs of each Tier I, Tier II, and Tier III school identified in the LEA's application and has selected an intervention for each school.**

All identified Tier I, Tier II, and Tier III schools have participated in the School CLASS Self Assessment. They are required to submit to the NMPED a copy of the summary forms, inclusive of strengths and opportunities for growth, with a final document that indicates priorities for the following school year. A tracking log has been developed in order to maintain current information regarding submission. The priorities identified must be reflected in the school's Improvement Plan – Educational Plan for Student Success (EPSS). The EPSS is submitted a minimum of three times a year, the first due on June 14<sup>th</sup>. The EPSS submitted on June 14, 2010 for all Tier I, II, and III schools will be reviewed by the NMPED staff to assure priorities are reflected in the EPSS. In November of 2010, the second EPSS will be submitted and reviewed by external consultants for both compliance and for consistency with the identified priorities. Feedback will be provided to schools within 30 days of submission of the EPSS. NMPED staff will continue to work with Tier I, Tier II, and Tier III schools to assure that their plan is reflective of the identified priorities. Submission of plans on a timely basis will be one of the considerations when determining continued funding of the SIG for subsequent school years.

The School Self Assessment is a tool provided to schools by the NMPED for use by all schools who have not met AYP for a third consecutive year. This tool was made available in December 2009 to all of the schools in improvement, corrective action, and restructuring. The goal of the assessment is for continuous improvement resulting in enhanced academic achievement for all students. The process, which is highly dependent on collaboration, cooperation, communication and advanced planning, is designed to assist schools in the identification of the root cause(s) of achievement gaps and the development of new priorities which then become new goals, strategies, and action steps in the school's Educational Plan for Student Success (EPSS). This process is designed to lead to increased academic achievement for all students.

A variety of tools and forms have been developed to support and assist in the implementation of the school self assessment process. Using the menu of tools and forms, the District Leadership Team and the School Leadership Team can customize internal practices and procedures to meet the unique characteristics and needs of the school while maintaining the integrity of the process. The Needs Assessment process provides schools and districts with both qualitative and quantitative data and information needed to identify priorities leading to development of the intervention model. The goal is to help schools discover the root causes of systemic and systematic performance problems. A link to the complete needs assessment is: <http://www.ped.state.nm.us/div/psb/dl10/CLASS/index.html>

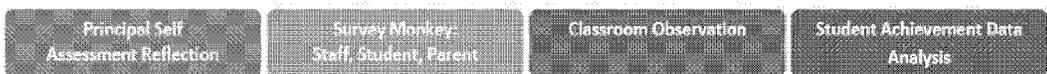
The School Assessment will be embedded on the Web Educational Plan for Student Success (discussed in detail on Page 12) and will be a key factor in assisting the LEAs as they develop their application. A Regional Support Specialist from the SEA has been assigned to work directly with each LEA and they will have access to the Web EPSS.

**Samples of the Collaboration Leadership and Accountability for Student Success (CLASS) Needs Assessment:**

CLASS Self Assessment Snapshot

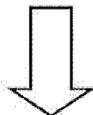
**New Mexico Class Self Assessment: Process Chart 2009 – 2010 (Transition)**

**New Mexico Class Self Assessment: Overview Guidance**



**Data Summary**

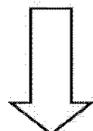
*A summary of your data will be completed that identifies strengths and areas for improvement for each section above.*



**Rubric Review**

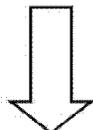
The School Leadership Team will review the Data Summary and complete the Rubric Review Process. The Rubric Review process includes:

- Review of each rubric indicator for all three Criteria: Dynamic and Distributed Leadership, Quality Teaching and Learning, and Culture and Collaborative Relationships.
- Citing evidence for each indicator (refer to Evidence list provided)
- Consider the Data Summary Information (strengths and opportunities for improvement).
- Build consensus among the Instructional Team and assign a performance level (Does Not Meet, Partially Proficient, Proficient, Exemplary) for each indicator.
- Upon rating each category, record on Rubric Review Rating Sheet. Identify up to 4 strengths and 4 opportunities for improvement.



**Setting Priorities**

Setting priorities requires narrowing the list down to two areas that are likely to have the greatest positive impact on student achievement. The School Leadership Team will come together to complete this process based on the Rubric Review Ratings. The priorities identified shall be reflected in the revised EPSS.



**Revise EPSS**

The revised EPSS shall be submitted to the NMPED – Priority Schools Bureau 2 weeks after the mid-year SCA has been completed.

**Submission Dates**

The following Self Assessment documents are due to the NMPED on **January 29, 2010**:

- Data Summary documents from the Principal Self Assessment Reflection, Survey Monkey results, Classroom Observations and Student Achievement Data Review.
- Rubric Review Rating Sheet to include evidence.
- Setting Priorities – Listing of identified priorities.

# New Mexico CLASS School Self Assessment

## Principal Self Reflection Questions

Sample Self  
Assessment

Rubric	Question
1.1	1. What is your school's mission and vision and how and when were they formulated?
1.2	2. How did you determine the goals and which strategies to use for your improvement plan?
1.3	3. How are priorities for student academic achievement established and stressed throughout the year?
1.4	4. What types of analyses of the school's progress in achieving EPSS goals are conducted and who was involved in the analysis?
1.4	5. How are disaggregated data used to set goals and meet diverse student needs?
1.5	6. What specific resources and structures do you provide to engage all staff in continuous improvement processes?
1.6	7. What processes do you use to engage teachers and other instructional staff in vertical and horizontal articulation?
1.7	8. What types of federal, state, and local grants do you have or pursue and how are they monitored?
1.8	9. How are fiscal and human resources allocated within the school to students who need additional assistance?
2.1	10. On what basis do you select strategies, interventions, and/or programs to meet student needs?
2.2	11. To what extent do the teachers in your school effectively employ a continuous improvement process in their classrooms with their students?
2.3	12. How do teachers and other instructional staff use data from short-cycle and other formative assessments and from summative assessments to refocus or modify instruction at the classroom and individual levels?
2.4	13. How well do teachers and other instructional staff implement the district policy for allocating and protecting instructional time in all core subject areas?
2.5	14. What evidence do you have that teachers and other instructional staff have appropriate content knowledge for effective and accurate instruction?
2.6	15. What do your teachers do to differentiate instruction to meet the learning needs of all students?
2.7	16. How often is feedback provided and what types of feedback do teachers give to students? How do students use the feedback?
2.8	17. What types of opportunities are students generally given to demonstrate their proficiency and how do teachers allow for adjustment of instruction in terms of levels of difficulty, strategy for instruction, and/or time allotted to complete tasks?
2.9	18. What does the school do to ensure that all teachers and other instructional staff implement curriculum and classroom assessments that are aligned with the New Mexico Content Standards?
2.10	19. How do adults in the school prevent and control behavior problems in class?
3.1	20. What activities are in place to promote and implement a culture of respect, trust, and positive communications among and between educators and children in your school?
3.2	21. What types of partnerships have been established with local community businesses and organizations and how are they related to promoting student achievement?
3.3	22. What activities are in place to engage families as partners in their children's education?
3.4	23. What specific steps are taken to ensure that the school provides a safe, culturally respectful, and orderly environment conducive to student learning?

**(2)The LEA has demonstrated that it has the capacity to use school improvement funds to provide adequate resources and related support to each Tier I, Tier II, and Tier III school identified in the LEA’s application in order to implement fully and effectively the selected intervention in each of those schools.**

NMPED has designed the Appendix D in the LEA Application that uses Dean Fixsen’s Core Implementation Components in order for the LEA to demonstrate their capacity to implement the selected interventions. These components are:

- Staff Performance Evaluation
- Decision Support Data Systems
- Facilitative Administrative Supports
- Systems Interventions
- Recruitment and Selection
- Pre-service Training
- Consultation and Coaching

In the Implementation Actions for Districts in the proposed LEA application, there is a requirement to engage parents and community members in every model. For example, in the Turnaround Model:

#### **Implementation Actions for Districts**

- Pursue changes to formal policy and informal standard operating procedures to empower schools to implement their turnaround strategies.
- Identify schools to receive targeted turnaround interventions.
- Devise procedures for determining which strategy to pursue at each identified school.
- Provide schools “the appropriate operating flexibility, resources, and support required to reduce barriers and overly burdensome compliance requirements and to enable a school-wide focus on student needs and improved achievement”.
- Establish partnerships with external providers where appropriate.
- Establish mechanisms for keeping stakeholders informed about the turnaround process at each school.
- Establish regular communication with the community and schools engaged in the turnaround process.
- Hold schools accountable for short-term progress leading to long-term academic gains.

Therefore, the consultation with stakeholders is already embedded in the criteria and is aligned to the Community and Parent Involvement Goals in the WebEPSS.

The LEAs will use the SEA’s online Web Educational Plan for Student Success (EPSS) system to submit their application and plan for implementing the selected Improvement Model. The Web EPSS is an online tool to monitor the implementation and evaluate the effectiveness of a district and/or school improvement plan. The WebEPSS is designed to enhance capacity to track the implementation and evaluate the effectiveness of school and district improvement plans. This tool was developed by South West Comprehensive Center and this is NMPED’s second year of using the tool for monitoring and planning. NMPED determined that since this tool is already being used by districts and schools to drive their improvement goals, strategies, and action steps, it made sense to align that work plan to the School Improvement Grant application. The *Web EPSS* allows SEAs to post support materials to provide guidance and assistance to LEAs to organize the information for planning, monitoring, and reporting. Once the plan is entered and approved, school, district and SEA staff can view the plan, and monitor progress of activities as well as report progress.

Additionally, each model has specific guiding questions that the LEA must use in its application which include Implementation Actions for Districts and Implementation Actions for Schools. These Action Steps will support the goals and strategies in the LEA application embedded in the WebEPSS. See example below:

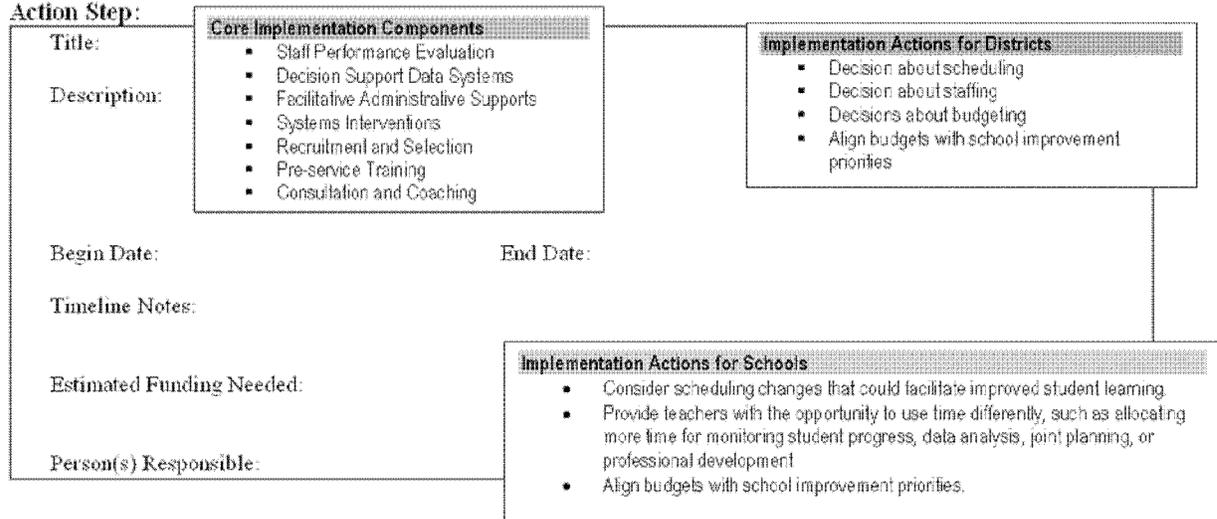
**School Improvement Grant**

If the Turnaround Model is selected:

**Strategy:** To provide flexibility and support to the building Principal that will serve to substantially improve student achievement outcomes and increase high school graduation rates.

**Description:**

**Action Step:**



Each of the Implementation Actions will be scored using the rubric described on Page 16.

**(3)The LEA’s budget includes sufficient funds to implement the selected intervention fully and effectively in each Tier I, Tier II, and Tier III school identified in the LEA’s application as well as to support school improvement activities in Tier III schools throughout the period of availability of those funds (taking into account any waiver extending that period received by either the SEA or the LEA).**

The Web EPSS links budget information to the goals, strategies, and action steps in the application specific to the selected model. See Appendix D on the LEA Application. The Web EPSS also includes other budget sources that support the goals, strategies, and action steps.

Improvement Plan **(3)** [View/Print PDF Using Tables](#) [Plan or Implementation Checklist](#) [Manage Goals](#) [Attach Document](#) [Filing Cabinet Docs: 1](#)

[Collapse Outline](#) Show: [All Statuses](#) [All Funding Sources](#) [All Tags](#) [Update](#)

**Turnaround Model** [Initiate Strategy](#) [Order Strategy](#) [Implement Strategy](#) [Tasks: 0 of 1 Complete](#) [Estimated Cost: \\$500.00](#) [Budgeted: \\$500.00](#) [Actual: \\$500.00](#)

A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve. [Attach Document](#)

**New Governance Structure - Turnaround Model** [Initiate Strategy](#) [Order Strategy](#) [Implement Strategy](#) [Tasks: 0 of 1 Complete](#) [Estimated Cost: \\$500.00](#) [Budgeted: \\$500.00](#) [Actual: \\$500.00](#)

Organize, plan and monitor the necessary elements of the system for which the school is responsible and provide useful tools to begin implementation of a new governance structure to get pairing teams started. [Attach Document](#)

Action Step	Description	Responsible	Status	Estimated Cost
<b>Identify Necessary Elements</b>	Complete Self Assessment to establish process based on the data gathered from the Principal Reflection, Staff, Parent and Student surveys, Classroom Observations, and Data Achievement Review.	Jane Doe	Status: Not Started	\$0.00
	<b>Lead Self Assessment Contact</b> (Due on 01/02/10)			
<b>Identify Tools needed for new Governance</b>	Tools to complete Self Assessment, Surveys, Data forms, Reflections Questions, Rubrics	Tina Beza	Status: Not Started	\$0.00

Budget Example

**Part 2**

The actions in Part 2 are ones that an LEA may have taken, in whole or in part, prior to submitting its application for a School Improvement Grant but, most likely, will take after receiving a School Improvement Grant. Accordingly, an SEA must describe how it will assess the LEA’s commitment to do the following:

**(1) Design and implement interventions consistent with the final requirements.**

The example below is from the LEA Application (Appendix D) and it demonstrates the specific requirements for the strategy regarding teacher and leader effectiveness in the Transformation Model. Under this strategy, the LEA will have a minimum of 8 Implementation Action Steps that would need to be addressed and will be scored for completeness.

**Appendix D- Example**

**School Improvement Grant**

Complete the following if the Transformation Model is selected:

**Strategy:** Measures the District will take in developing teacher and school leader effectiveness.

**Description:**

**Action Step:**

<b>Title:</b>	<b>Core Implementation Components</b>
<b>Description:</b>	<ul style="list-style-type: none"><li>▪ Staff Performance Evaluation</li><li>▪ Decision Support Data Systems</li><li>▪ Facilitative Administrative Supports</li><li>▪ Systems Interventions</li><li>▪ Recruitment and Selection</li><li>▪ Pre-service Training</li><li>▪ Consultation and Coaching</li></ul>
<b>Begin Date:</b>	<b>End Date:</b>
<b>Timeline Notes:</b>	
<b>Estimated Funding Needed:</b>	
<b>Person(s) Responsible:</b>	

<b>Implementation Actions for District</b>
<ul style="list-style-type: none"><li>▪ Provide for an infrastructure for Continuous Improvement</li><li>▪ Implement, assess and adjust instruction in short term cycles of improvement</li><li>▪ Design planning and decision making plan</li><li>▪ Establish structures for team planning</li><li>▪ Provide adequate time for teams to meet, conduct business</li><li>▪ Provide professional development for district and school personnel on effective learning practices</li><li>▪ Establish evaluation criteria that is directly tied to expected outcomes</li><li>▪ Systematize the regular reporting of the work of the school and district</li></ul>

**(2) Recruit, screen, and select external providers, if applicable, to ensure their quality.**

The example below is from the LEA Application (Appendix D) and it demonstrates the specific requirements for the strategy regarding Instructional Reforms in the Transformation Model. Under this strategy, the LEA will have a minimum of 8 Implementation Action Steps that would need to be addressed and will be scored for completeness.

**Appendix D- Example**

**School Improvement Grant**

Complete the following if the Transformation Model is selected:

Strategy: Instructional reform strategies

Description:

Action Step:

Title:

Description:

Begin Date:

End Date:

Timeline Notes:

Estimated Funding Needed:

Person(s) Responsible:

**Core Implementation Components**

- Staff Performance Evaluation
- Decision Support Data Systems
- Facilitative Administrative Supports
- Systems Interventions
- Recruitment and Selection
- Pre-service Training
- Consultation and Coaching

**Implementation Actions for District**

- Establish plan for monitoring fidelity of implementation of the curriculum
- Establish data plan to identify possible reasons for programs not performing as expected
- Provide for comprehensive training and support materials
- Build capacity to monitor and maintain alignment between curriculum standards and classroom instruction, including use of formative data
- Provide resources (time, expertise, planning support, professional development) to enable teachers to incorporate changes required to align instruction with standards
- Utilized coaching methods to support teachers in differentiating instruction
- Use student data to drive instruction by training teachers and principals in how to interpret and use data to change instruction
- Allocate resources to support the method (materials, release time and stipends)

**(3) Align other resources with the interventions.**

The example below is from the LEA Application (Appendix D) and it demonstrates the specific requirements for the strategy regarding Extending learning time and creating a community-oriented school in the Transformation Model. Under this strategy, the LEA will have a minimum of 5 Implementation Action Steps that would need to be addressed and will be scored for completeness.

**Appendix D- Example**

**School Improvement Grant**

Complete the following if the Transformation Model is selected:

**Strategy:** Extending learning time and creating community-oriented school.

**Description:**

**Action Step:**

Title:

Description:

Begin Date:

End Date:

Timeline Notes:

Estimated Funding Needed:

Person(s) Responsible:

**Core Implementation Components**

- Staff Performance Evaluation
- Decision Support Data Systems
- Facilitative Administrative Supports
- Systems Interventions
- Recruitment and Selection
- Pre-service Training
- Consultation and Coaching

**Implementation Actions for District**

- Establish a "buy-in" plan for extended learning time
- Allocate and increase funds to support extended learning time
- Provide professional development to ensure that teachers use extra time effectively
- Determine how the district will monitor progress of the extended learning time initiative
- Establish plan for effective before and after school programs, summer school, Saturday school, extended day programs

**(4) Modify its practices or policies, if necessary, to enable it to implement the interventions fully and effectively.**

The example below is from the LEA Application (Appendix D) and it demonstrates the specific requirements for the strategy in the Transformation Model. Under this strategy, the LEA will have a minimum of 8 Implementation Action Steps that would need to be addressed and will be scored for completeness.

**Appendix D- Example**

**School Improvement Grant**  
**If the Turnaround Model is selected:**

**Strategy:** To provide flexibility and support to the building Principal that will serve to substantially improve student achievement outcomes and increase high school graduation rates.

**Description:**

**Action Step:**

<p><b>Title:</b></p> <p><b>Description:</b></p> <p><b>Begin Date:</b></p> <p><b>End Date:</b></p> <p><b>Timeline Notes:</b></p> <p><b>Estimated Funding Needed:</b></p> <p><b>Person(s) Responsible:</b></p>	<p><b>Core Implementation Components</b></p> <ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul>	<p><b>Implementation Actions for Districts</b></p> <ul style="list-style-type: none"> <li>▪ Decision about scheduling</li> <li>▪ Decision about staffing</li> <li>▪ Decisions about budgeting</li> <li>▪ Align budgets with school improvement priorities</li> </ul>
		<p><b>Implementation Actions for Schools</b></p> <ul style="list-style-type: none"> <li>• Consider scheduling changes that could facilitate improved student learning.</li> <li>• Provide teachers with the opportunity to use time differently, such as allocating more time for monitoring student progress, data analysis, joint planning, or professional development</li> <li>• Align budgets with school improvement priorities.</li> </ul>

**(5) Sustain the reforms after the funding period ends.**

The SEA will assure that the LEA application demonstrates that the LEA will invest early on in resources that will build capacity so that the investment reduces over the 3 years. Additionally, the Review Panel will carefully analyze the LEA application to make sure the intervention model chosen will be sustainable as a result of the intentional strategies of building capacity. During the funding period, the SEA will require the LEA's to align their other resources (Title I, Title II, Title III, and Indian Education Funds) to the intervention model. The WebEPSS is currently being used to monitor those programs and gives New Mexico the ability to align program and budget to the Educational Plan for Student Success' goals, strategies, and action steps. As a result, the SEA and LEA can access these reports and information to prioritize and monitor the resources for sustaining the reforms.

The Web EPSS allows the SEA and LEA to create reports to enable the LEA to analyze results and prioritize resources after the funding period ends. See Appendix D in the LEA Application.

**Appendix D- Example**

**Strategy:** To establish competencies that will be used to measure the effectiveness of staff who will work within the turnaround environment to meet the needs of students.

**Description:**

**Action Step:**

<b>Title:</b>	<b>Core Implementation Components</b>	<b>Implementation Actions for Districts</b>
<b>Description:</b>	<ul style="list-style-type: none"><li>▪ Staff Performance Evaluation</li><li>▪ Decision Support Data Systems</li><li>▪ Facilitative Administrative Supports</li><li>▪ Systems Interventions</li><li>▪ Recruitment and Selection</li><li>▪ Pre-service Training</li><li>▪ Consultation and Coaching</li></ul>	<ul style="list-style-type: none"><li>▪ Establish tools to measure effectiveness of staff</li><li>▪ Align state standards of practice to district system evaluation</li><li>▪ Establish systems that will support two way communication with staff regarding performance</li><li>▪ Pinpoint school conditions that predict later failure</li><li>▪ Engage in rapid retry efforts when failure occurs</li><li>▪ Provide mentorship and Professional Development support</li><li>▪ Use continuous improvement cycles</li></ul>
<b>Begin Date:</b>	<b>End Date:</b>	
<b>Timeline Notes:</b>		
<b>Estimated Funding Needed:</b>		
<b>Person(s) Responsible:</b>		

**C. CAPACITY: The SEA must explain how it will evaluate whether an LEA lacks capacity to implement a school intervention model in each Tier I school.**

**An LEA that applies for a School Improvement Grant must serve each of its Tier I schools using one of the four school intervention models unless the LEA demonstrates that it lacks sufficient capacity to do so. If an LEA claims it lacks sufficient capacity to serve each Tier I school, the SEA must evaluate the sufficiency of the LEA's claim. Claims of lack of capacity should be scrutinized carefully to ensure that LEAs effectively intervene in as many of their Tier I schools as possible. The LEA must list the schools it will serve in the LEA application and the next section describes how the**

SEA will scrutinize the LEA's capacity or lack of capacity to effectively intervene in their Tier I schools.

**The SEA must explain how it will evaluate whether an LEA lacks capacity to implement a school intervention model in each Tier I school. The SEA must also explain what it will do if it determines that an LEA has more capacity than the LEA demonstrates.**

See Appendix D in the LEA Application for the goals, strategies, and action steps that must follow the guiding questions and components for implementation that the SEA developed. In addition, the LEA must present their application to the NMPED School Improvement Review Panel and the LEA must be prepared to successfully answer the panel's inquiries

The LEA must complete Appendix D and submit a draft to the SEA prior to their presentation to the NMPED School Improvement Review Panel. The LEA must present their draft to the Panel and successfully answer the panel's inquiries. In addition, the NMPED Regional Support Specialist assigned to the LEA must conduct a minimum of 2 site visits and make a presentation to the Review Panel regarding the data, the District and School CLASS Assessments, and the Appendix D information. Each of the criteria in Appendix D will be scored based on the following rubric:

- ❖ 0-5 Points-- Not responsive to requirements
- ❖ 6-10 Points—Partially responsive to requirements
- ❖ 11-15—Completely responsive to requirements

Worksheet D has been developed for the LEA to complete in the event that the LEA believes it lacks the capacity to effectively implement one of the intervention models. The LEA must also present this information to the Review Panel and the NMPED Regional Support Specialist assigned to the LEA must verify the information and present that verification to the Review Panel.

If the Review Panel determines that the LEA has more capacity than the LEA demonstrates, the Panel will make a recommendation to the NMPED Secretary of Education to determine options in order to assure that the students at the school are being served well. One option may be that the SEA determines it may exercise its option to take over the operation of the school. Another option may be that the SEA needs to devote additional time in the LEA to clarify issues and find options to serve the school(s).

The final application and the SEA decision will be posted to the NMPED website.

**D. DESCRIPTIVE INFORMATION: An SEA must include the information set forth below.**

**(1) Describe the SEA's process and timeline for approving LEA applications.**

The LEAs will use the SEA's online Web EPSS system to submit their application and plan for implementing the selected Improvement Model. The Web EPSS is an online tool to monitor the implementation and evaluate the effectiveness of a district and/or school improvement plan. NMPED has recently developed and begun to implement an interactive web-based version of the Educational Plan for Student Success (EPSS), which is designed to enhance educators' capacity to track the implementation and evaluate the effectiveness of their school and district improvement plans. This tool was developed by

South West Comprehensive Center and this is NMPED's second year of using the tool for monitoring and planning. NMPED determined that since this tool is already being used by districts and schools to drive their improvement goals, strategies, and action steps, it made sense to align that work plan to the School Improvement Grant application. The *Web EPSS* allows SEAs to post support materials to provide guidance and assistance to LEAs to organize the information for planning, monitoring, and reporting. Once the plan is entered and approved, school, district and SEA staff can view the plan, and monitor progress of activities as well as report progress and outcomes.

The Web EPSS is designed to track the implementation and evaluate the effectiveness of the LEA Improvement Plan. When fully implemented, it will guide New Mexico schools and districts through the process of tracking actions, responsibilities and progress toward increasing student achievement. Currently, 26 New Mexico school districts designated as Corrective Action are using the Web EPSS tool. Training and support, has been provided to these school districts by the New Mexico Public Education Department (NMPED) – Priority Schools Bureau Staff in conjunction with West Ed. The Web EPSS can be monitored on an ongoing basis because it is a web-based tool. As of January 4, 2010 all 26 school districts in New Mexico received feedback on their Web EPSS submissions and this information is to be included in the next revision of their District improvement plan – June 2010. All remaining school districts in New Mexico will be trained and expected to deploy the Web EPSS in 2010. Additionally, the New Mexico schools connected to the original 26 school districts will also be trained on the Web EPSS and expected to deploy the tool as their improvement plan. Regional training across the state support these efforts in addition to webinars and personalized technical support provided by NMPED Regional Support Specialists.

LEAs will upload their SIG applications as documents in their Web EPSS file cabinet and then be linked to the District and School plans. The SEA will provide technical assistance and will pre-populate the WebEPSS so that the SEA can concentrate on the strategies and action steps for the application. The SEA will view each draft plan online, provide feedback and, when appropriate, "approve" the draft plan online, with notification to the LEA. Each of the criteria (action step) in Appendix D will be scored based on the following rubric:

- ❖ 0-5 Points ---Not responsive to requirements
- ❖ 6-10 Points—Partially responsive to requirements
- ❖ 11-15—Completely responsive to requirements

See Appendix D in the LEA Application for the goals, strategies, and action steps that must follow the guiding questions and components for implementation that the SEA developed. The Regional Support Specialist will work individually with the LEAs to set their performance measures to make sure they meet the rigorous and reasonable standards. In addition, the LEA must present their application to the NMPED School Improvement Review Panel and the LEA must be prepared to successfully answer the panel's inquiries.

**Example of an LEA choosing the Turnaround Model as a Goal in the WebEPSS:**

The Web EPSS tools are available through the Internet, and require a computer with a network connection and a Web browser. To access the tool, individuals must have an account in the system and be set up to access the LEAs plans. The SIG goals and plans for individual schools will be incorporated into this same system, thus maintaining a consistent system for planning, monitoring, implementation, and reporting.

Process Steps	Timeline	Responsible Party
Embed approved LEA application into the Web EPSS	February 2010 (depending on USDOE approval)	USDOE, NMPED, and South West Comprehensive Center
Train the LEAs on the	February 2010	NMPED and *NMLI (New

Application Process		Mexico Leadership Institute)
LEAs submit their draft application on Web EPSS	On or before March 24, 2010	NMPED and LEA
LEAs submit their application and makes presentation to NMPED Review Panel	On or before March 31, 2010	LEA
LEAs submit their Final Application on Web EPSS	5 days after presentation to panel	LEA
SEA notifies districts	April 12, 2010	SEA
SEA awards funds to LEA	April 30, 2010	SEA
LEA Implementation Begins	May 2010	LEA & SEA

The NMPED Priority Schools Bureau (PSB) has partnered with the New Mexico Leadership Institute (NMLI) to bring superintendents, invited district personnel, PSB staff, and others together for a series of webinars using Wimba Classrooms. Stakeholders can participate in webinars at the actual date and time they take place and the webinars will be available to download them and view them at any time. The dates and times of these webinars are listed below. In addition, NMPED and NMLI developed a page on the NMLI website where the LEAs can access documents relating to school turnaround, such as a toolkit for selecting turnaround leaders, current research, lists of vendors, etc. They can also communicate with each other about their planning using blogs. Link to the NMLI site: [www.nmli.org](http://www.nmli.org).

<b>Wimba Classroom Schedule</b>		
<b>Date</b>	<b>Time</b>	<b>Topic</b>
February 9	9:30 a.m.	School Improvement /Turnaround Options Specifics: A. Turnaround B. Restart C. Transformational D. School Closure
February 11	1:30 p.m.	LEA Application Process Overview
February 16	9:30 a.m.	School Improvement Grant Application Details
February 18	1:30 p.m.	Follow-up on Turnaround and Transformation Models
February 23	9:30 am	Union Issues
February 25	1:30 p.m.	Selecting Principals
March 2	9:30 am	Selecting External Providers
March 4	1:30 p.m.	Community/stakeholder Involvement
March 9	9:30 a.m.	Using the WebEPSS to monitor & implement intervention
March 11	1:30 p.m.	Performance Measures—Rigor and Reason
March 16	9:30 a.m.	Resources: Effective Implementation of School Improvement Grants (CII)

**(2)Describe the SEA’s process for reviewing an LEA’s annual goals for student achievement for its Tier I and Tier III schools and how the SEA will determine whether to renew an LEA’s School Improvement Grant with respect to one or more Tier I, Tier II, or Tier III schools in the LEA that**

**are not meeting those goals and making progress on the leading indicators in section III of the final requirements.**

For the 2009-2010 school year, all schools in Tier I have conducted a School CLASS Self Assessment, establishing base line data and to drive the determination of priorities in the completion of their Improvement Plan (Educational Plan for Student Success – EPSS) as well as their School Improvement Grant application. In the fall of the 2010-11 school year, the first year of a school receiving a SIG grant, an external consultant will be assigned to conduct the school CLASS needs assessment. That information and data will be shared with the school and compared with their self-assessment from the 2009-2010 school year. In the spring of 2011, the same external consultant will again conduct the School CLASS needs assessment in order to identify progress and areas of growth.

Additionally, Short Cycle Assessment scores will be reviewed and fall scores will be compared with spring scores and the amount of growth will be a consideration in determining funding for a second year. NMSBA data will also be reviewed and the average growth computed, inclusive of the 2009-2010 data. Gains from this year will be expected.

Should the data indicate no or little growth, a school would likely not be recommended for funding for a second year.

The Web EPSS includes descriptions of the Goals and Strategies, detailed Action Steps (start and end dates, person(s) responsible, specified budget allocations and expenditures), and related Tasks with due dates and assignments. The SEA is able to review and approve these plans online, and make comments back to the LEA about each item in the plan. Comments appear within the plan at the point of origin, and may also be emailed from Web EPSS to the persons responsible for that section of the plan. The SEA may also provide templates and guidance documents to the LEAs, attached within their online Plan, and may view documents uploaded by the LEAs.

As the LEA implements its plan, progress is recorded in the Web EPSS by providing status updates of Tasks and Action Steps, recording actual expenditures in their budgets, and uploading documentation related to activities and events to the file cabinet. The Plan Overview page shows the status of each goal, Strategy, and Action Step, including when it was last updated and by whom. Action Steps may be "tagged" with one or more designation set by the SEA (e.g. SIG, PD, ELL, Parent) and the plan view may be filtered by a Tag, and/or by a Funding Source, and/or by the status of Action Steps (Not Begun, In Progress, Completed). The filters provide a view of just those selected features in the Plan, so the SEA Reviewer(s) may quickly assess all of the SIG-related Action Steps and see the progress that has been made on each one. An Implementation report is also available, which presents a chart view of each Action Step, its current status, and the history of progress updates with related comments. The SEA may also request certain documentation be uploaded to a particular Strategy or Action Step, showing the implementation process and the impact on student achievement.

The SEA will monitor the LEA's plan implementation using Web EPSS, providing "real-time" information on implementation (status updates, comments, documentation provided) as well as review the SIG schools' plans and the LEA's interactions within the school plans (e.g. comments, LEA-provided documents, monitoring reports in the LEA plans.) The implementation of the school intervention model will be evident in both the LEA plan implementation and in their interaction with the progress of the

school plans. The WebEPSS will be reviewed monthly by the SEA and provide feedback to the LEA via the WebEPSS tools.

**Example an LEA’s use of Goals, Strategies, and Action Steps in the WebEPSS:**

The screenshot displays the 'Improvement Plan' interface. At the top, it shows 'Improvement Plan (3)' with navigation options like 'View/Print PDF Using Filters: Plan or Implementation Checklist', 'Manage Goals', 'Attach Document', and 'Filing Cabinet Docs: 1'. Below this, there are filters for 'Show: All Statuses', 'All Funding Sources', and 'All Tags', along with an 'Update' button.

The main content area is divided into three sections:

- GOAL:** A box labeled 'GOAL' points to the 'Goal' section. It shows a goal titled 'Turnaround Model' with a status of 'In Progress'. It lists 'Strategies: 1' and 'Action Steps: 0 of 3 Complete'. Budget information includes 'Estimate Cost: \$500.00', 'Budgeted: \$500.00', and 'Actual: \$500.00'. A description follows: 'A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve.' There is an 'Attach Document' link.
- STRATEGY:** A box labeled 'STRATEGY' points to the 'Strategy' section. It shows a strategy titled 'New Governance Structure - Turnaround Model' with a status of 'In Progress'. It lists 'Action Steps: 3' and 'Lead Action Step: Order Antagonist'. Budget information includes 'Estimate Cost: \$500.00', 'Budgeted: \$500.00', and 'Actual: \$500.00'. A description follows: 'Organize, plan and monitor the necessary elements of the system for which the school is responsible and provide useful tools to begin implementation of a new governance structure to get planning teams started.' There is an 'Attach Document' link.
- ACTION STEP:** A box labeled 'ACTION STEP' points to the 'Action Step' table. The table has columns for 'Action Step', 'Description', 'Responsible', and 'Status'.
 

Action Step	Description	Responsible	Status
Identify Necessary Elements	Complete Self Assessment to establish priorities based on the data gathered from the Principal Reflection, Staff, Parent and Student surveys, Classroom Observations, and Data Achievement Review	Jane Doe	Status: In Progress Begin: 1/23/2010
Lead Self Assessment Contact	Lead Self Assessment Contact (Due on 2/9/2010)		Estimate: \$0.00
Identify Tools need for new Governance	Tools to complete Self Assessment: Surveys, Data forms, Reflections Questions, Rubrics	Tina Deas	Status: In Progress Begin: 1/23/2010

**(3) Describe the SEA’s process for reviewing the goals an LEA establishes for its Tier III schools (subject to approval by the SEA) and how the SEA will determine whether to renew an LEA’s School Improvement Grant with respect to one or more Tier III schools in the LEA that are not meeting those goals.**

For the 2009-2010 school year, all schools in Tier III have conducted a School CLASS Self Assessment, establishing base line data and to drive the determination of priorities in the completion of their Improvement Plans (Educational Plan for Student Success - EPSS) as well as their School Improvement Grant application. In the fall of the 2010-2011 school year, the first year of a school receiving a SIG grant, an external consultant will be assigned to conduct the school CLASS needs assessment. That information and data will be shared with the school and compared with their self-assessment done during the 2009-2010 year. In the spring of 2011, the same external consultant will again conduct the School CLASS needs assessment in order to identify progress and areas of growth.

Additionally, Short Cycle Assessment scores will be reviewed and fall scores will be compared with

spring scores and the amount of growth will be a consideration in determining funding for a second year. NMSBA data will also be reviewed and the average growth computed, inclusive of the 2009-2010 data. Gains from this year will be expected.

Should the data indicate no or little growth, a school would likely not be recommended for funding for a second year.

The SEA will monitor the LEA's goals, strategies, and action steps for its Tier III schools (subject to approval by the SEA) using Web EPSS, providing "real-time" information on implementation (status updates, comments, documentation provided) as well as review the SIG schools' plans and the LEA's interactions within the school plans (e.g. comments, LEA-provided documents, monitoring reports in the LEA plans.) The implementation of the school intervention model will be evident in both the LEA plan implementation and in their interaction with the progress of the school plans. Renewal of the grant will be similar to the process for Tier I schools since access to the WebEPSS is similar.

**(4) Describe how the SEA will monitor each LEA that receives a School Improvement Grant to ensure that it is implementing a school intervention model fully and effectively in the Tier I and Tier II schools the LEA is approved to serve.**

NMPED will use the Web EPSS to fully monitor the intervention model and each LEA has a Regional Support Specialist from the NMPED Priority Schools Bureau assigned to monitor implementation and provide technical assistance. These staff will be trained and supervised by the Coordinator of District Improvement.

In addition, NMPED will require that each school has a data management system that includes the following components linked to the Web EPSS for monitoring:

- a. Develop school-specific metrics that promote growth, goals and innovation
- b. Easily disseminate district-specific information about accomplishments, progress and areas of need
- c. Analyze real-time reports for forecasting, budgeting and planning
- d. View key performance indicators across student, subgroup and school
- e. Access on-demand information about pedagogical methodologies
- f. Easily improve strategic alignment, efficiency, accountability, cycle times and forecasting.
- g. Create, measure and analyze school or cohort groups over time to evaluate the efficacy of academic interventions
- h. Systematically gather longitudinal data about student performance on assessments.
- i. Easily sort data by grade, gender, ethnicity, and more to evaluate testing skill levels and student progress
- j. Thoughtfully evaluate data needed for differentiated instruction
- k. Quickly identify achievement trends across time and groups
- l. Administer placement and simulation exams, periodic assessments and year-end exit exams.
- m. Diagnose strengths and weaknesses of individual students, schools, and districts

The LEA will be required to make a presentation to the Review Panel prior to renewal of funds and will focus on the performance measures. The WebEPSS provides historical data on the goals, strategies, action steps, and budget. The renewal process will drive opportunities for improvement, celebration, and collaboration.

**Example of Action Steps in the WebEPSS:**

Action Step	Description	Responsible	Status	
<u>Identify Necessary Elements</u>	Complete Self Assessment to establish priorities based on the data gathered from the Principal, Selection, Staff, Parent and Student Surveys, Classroom Observations, and Data Achievement Review. Tasks: 0 of 1 Complete <u>Lead Self Assessment Contact</u> (Due on 08/20/10)	Jane Doe	Status: Not Begun 1/26/2010 Estimate: \$0.00	<b>Parent</b> <a href="#">Attach Document</a>
<u>Identify Tools need for new Governance Structure</u>	Tools to complete Self Assessment: Surveys, Data forms, Reflections Questions, Rubrics Tasks: None	Tina Brass	Status: Not Begun 1/26/2010 Estimate: \$500.00	<a href="#">Attach Document</a>
<u>Monitoring Cycle</u>	Establish monitoring cycle of the action step Tasks: None	Jane Doe	Status: In Progress 1/26/2010 Estimate: \$0.00	<b>SEA</b> <a href="#">Attach Document</a>

Summary Row:  
 Readiness Language Arts Strategies: 4 Action Steps: 2 of 14 Complete Estimate Cost: \$45,000.00  
 Proficiency Math Strategies: Order Strategies: 2 Action Steps Overview Budgeted: \$321,000.00

**(5) Describe how the SEA will prioritize School Improvement Grants to LEAs if the SEA does not have sufficient school improvement funds to serve all eligible schools for which each LEA applies.**

NMPED will prioritize the grants to LEAs based on the schools’ needs assessment, available funds, and the LEA’s capacity for implementing strategies as scored in the Application and Panel Review. NMPED may also take into consideration the LEA’s feeder patterns and geographical factors to determine maximum long term benefits to students.

**(6) Describe the criteria, if any, that the SEA intends to use to prioritize among Tier III schools.**

NMPED will prioritize the Tier III schools based on the schools’ needs assessments, available funds, and the LEA’s capacity for implementing strategies as scored in the Application and Panel Review.

**(7) If the SEA intends to take over any Tier I or Tier II schools, identify those schools and indicate the school intervention model the SEA will implement in each school.**

NMPED does not intend to take over services any Tier I or Tier II schools. If conditions change, the SEA will amend its application to the USDOE accordingly. New Mexico does have the statutory authority to take over schools if necessary.

Once the Review Panel makes a recommendation to the NMPED Secretary of Education regarding the status of each LEA application, the NMPED will make decisions based on a specific intervention model in consultation with the appropriate stakeholders and will develop goals, strategies, and actions based on similar criteria within the LEA application.

**(8) If the SEA intends to provide services directly to any schools in the absence of a takeover, identify those schools and, for Tier I or Tier II schools, indicate the school intervention model the SEA will implement in each school, and provide evidence of the LEA's approval to have the SEA provide the services directly.<sup>†</sup>**

NMPED does not intend to provide services directly to any schools in the absence of a takeover at the present time. If conditions change, the SEA will amend its application to the USDOE accordingly.

NMPED will analyze which direct services may need to be provided in schools once the Review Panel makes its recommendation to the NMPED Secretary of Education.

**E. ASSURANCES: The SEA must provide the assurances set forth below.**

**By submitting this application, the SEA assures that it will do the following:**

(NMPED has completed each assurance, indicated by the “√”)

- √ Comply with the final requirements and ensure that each LEA carries out its responsibilities.
- √ Award each approved LEA a School Improvement Grant in an amount that is of sufficient size and scope to implement the selected intervention in each Tier I and Tier III school that the SEA approves the LEA to serve.
- √ Apportion its school improvement funds in order to make grants to LEAs, as applicable, that are renewable for the length of the period of availability, taking into account any waivers that may have

<sup>†</sup> If, at the time an SEA submits its application, it has not yet determined whether it will provide services directly to any schools in the absence of a takeover, it may omit this information from its application. However, if the SEA later decides that it will provide such services, it must amend its application to provide the required information.

been requested and received by the SEA or an individual LEA to extend the period of availability.

- ✓ Carry over 25 percent of its FY 2009 school improvement funds, combine those funds with FY 2010 school improvement funds, and award those funds to eligible LEAs consistent with the final requirements if not every Tier I school in the State receives FY 2009 school improvement funds to implement a school improvement model in the 2010-2011 school year (unless the SEA does not have sufficient school improvement funds to serve every Tier I school in the State).
- ✓ Ensure, if the SEA is participating in the Department's differentiated accountability pilot, that its LEAs will use school improvement funds consistent with the final requirements.
- ✓ Monitor each LEA's implementation of the interventions supported with school improvement funds.
- ✓ To the extent a Tier I or Tier II school implementing the restart model becomes a charter school LEA, hold the charter school operator or charter management organization accountable, or ensure that the charter school authorizer holds the respective entity accountable, for meeting the final requirements.
- ✓ Post on its web site, within 30 days of awarding School Improvement Grants, all final LEA applications and a summary of the grants that includes the following information: name and NCES identification number of each LEA awarded a grant, amount of the grant, name and NCES identification number of each school to be served, and type of intervention to be implemented in each Tier I, Tier II, and Tier III school.
- ✓ Report the specific school-level data required in section III of the final requirements.

**F. SEA RESERVATION: An SEA may reserve an amount not to exceed five percent of its School Improvement Grant for administration, evaluation, and technical assistance expenses.**

**The SEA must briefly describe the activities related to administration, evaluation, and technical assistance that the SEA plans to conduct with the State-level funds it has received from its School Improvement Grant.**

In summary, New Mexico has combined its years of experience in working with schools in need of improvement and the best research from efforts across the country to develop a framework for guiding our work of improving the state's lowest-performing schools. Each school will be expected to:

1. Set high expectations for all students
2. Increase students' involvement in and control over their own learning
3. Set high expectations for parents and community
4. Create a positive school environment that is conducive to learning and builds on the unique New

Mexico cultural diversity

5. Link/align instruction to rigorous, common standards, curriculum, pedagogy, lesson plans, progress monitoring, benchmarking, and summative assessments
6. Develop and support strong instructional leadership
7. Demand excellent teaching supported by job-embedded professional development
8. Provide and support efficient and effective student learning time (with extended school time models)
9. Build and support community engagement with a focus on the community collaboratives to bring all stakeholders to engage in the solution
10. Use technology to connect communities to data, professional development, instructional lessons, summative assessments, and to create learning centers for communities to expand their knowledge and skills

Under the above strategies, New Mexico will also identify success stories that can be replicated. An RFP with an educational research center will benchmark progress and performance to enable this replication. This is particularly important to sustain these reforms and expand them to other low-achieving schools.

Each of the schools identified for one of the interventions will be required to use a common curriculum framework that is aligned to standards, instruction, interventions, and assessments. Therefore, some of the state funds may be used to help evaluate and train districts in aligning their framework. A curriculum framework specifies what topics are to be taught at which grade levels for each subject in the curriculum. New Mexico's curriculum framework will follow components similar to the Pennsylvania Standards Aligned System as shown in Table E-2.4.

<b>Table E-2.4: New Mexico's Curriculum Framework</b>	
Clear Standards	Clear, high standards that establish what all students need to know and be able to accomplish
Fair Assessments	Fair assessments aligned to the standards
Curriculum Framework	A framework specifying Big Ideas, Concepts, and Competencies in each subject area/at each grade level
Instruction	Aligned instruction--aligning instruction with standards involves identifying strategies that are best suited to help students achieve the expected performance
Materials and Resources	Materials that address the standards
Interventions	A safety net/intervention system that ensures all students meet standards

New Mexico will expand on its Regional Support System that was implemented in 2008 and focus on engaging communities in order to successfully foster collaboration with the LEA and SEA. The concept is an important part of New Mexico's strategy to demonstrate sustainability for School Improvement Grant implementation. New staffing of the system include the following:

- a. Turnaround Specialists. The Governor's Graduate NM Initiative approved funds for 4 FTE's for 2009-2012 using the State Fiscal Stabilization Government Services Fund. Depending on the interventions and approved applications, other turnaround specialists may need to be hired and deployed.
- b. A Community Coalition Coordinator to build an effective network of partners within the local communities, the state, and the nation. This coordinator will benchmark, communicate, and build these networks of key stakeholders and partners. For example, the coordinator will serve on the Board of Innovate to Educate and will partner with the National Hispanic Cultural Center in Albuquerque. Funding for this position will be provided by the School Improvement Grant and recruitment for this position will begin in Spring 2010.

In addition, the set-aside funds will be used to train and equip the turnaround specialists, the community organizers, and other staff who will monitor and support the LEA's programs and budgets. Some funds may be needed to upgrade the Web EPSS during the three years of implementation.

**G. CONSULTATION WITH STAKEHOLDERS: An SEA must consult with its Committee of Practitioners and is encouraged to consult with other stakeholders regarding its application for a School Improvement Grant.**

**Before submitting its application for a School Improvement Grant to the Department, the SEA must consult with its Committee of Practitioners established under section 1903(b) of the ESEA regarding the rules and policies contained therein.**

(NMPED has completed each assurance, indicated by the “√”)

√ **The SEA has consulted with its Committee of Practitioners regarding the information set forth in its application.**

New Mexico Public Education department consulted with its Committee of Practitioners and the minutes are attached. NMPED Appendix E

**The SEA may also consult with other stakeholders that have an interest in its application.**

√ **The SEA has consulted with other relevant stakeholders, including the following description:**

The New Mexico Public Education Department (NMPED) formed the School Improvement Task Force to serve an advisory role in the process of applying for the federal School Improvement Grant (SIG) and related funds. The Task Force was comprised of representatives from local education agencies (LEAs) and other educational organizations from throughout the State. Staff from the Southwest Comprehensive Center (SWCC) at WestEd co-facilitated Task Force meetings with NMPED staff on November 6 and November 20, 2009.

Specifically, the Task Force advised the NMPED in the following areas:

- Criteria for identifying schools that would be eligible to receive SIG funding
- Criteria related to the overall quality of LEA applications for SIG funding and LEA capacity to implement fully and effectively the required interventions
- Review of requirements for various applications for ARRA funding and State initiatives to ensure that they are complementary

As a result of the discussions and input from the Task Force, the NMPED established and identified the criteria that the SEA used to determine the eligible schools.

The Task Force agreed that the NMPED should give top priority to LEA applications for SIG funding that clearly demonstrate LEA capacity to

- Analyze needs of eligible schools;
- Match interventions to individual school needs;
- Design effective interventions;
- Use external providers effectively;
- Embed interventions in a long-term plan;
- Align other resources with identified needs;
- Modify practices; and,
- Sustain reforms after supplemental funding is no longer available.

All LEA applications will be reviewed against these criteria, as well as the other requirements outlined in the final SIG regulations.

To ensure that the various educational initiatives within the State and federally funded programs are complementary to one another, the Task Force reviewed the following programs and their respective requirements:

- Governor's Initiatives
- Race to the Top
- Federal Innovation grants
- Student Longitudinal Data Systems
- School Improvement Grant

Based on these analyses and discussions, the NMPED is better equipped to develop and submit applications that support the Governor's educational initiatives, meet all requirements and expectations of the respective programs, and minimize duplication and overlapping efforts.

**H. WAIVERS:** The final requirements invite an SEA to request waivers of the requirements set forth below. An SEA must list in its application those requirements for which it is seeking a waiver.

**New Mexico** requests a waiver of the requirements it has listed below. These waivers would allow any local educational agency (LEA) in the State that receives a School Improvement Grant to use those funds in accordance with the final requirements for School Improvement Grants and the LEA's application for a grant.

The State believes that the requested waiver(s) will increase the quality of instruction for students and improve the academic achievement of students in Tier I, Tier II, and Tier III schools by enabling an LEA to use more effectively the school improvement funds to implement one of the four school intervention models in its Tier I or Tier II schools, and to carry out school improvement activities in its Tier III schools. The four school intervention models are specifically designed to substantially raise the achievement of students in the State's Tier I and Tier II schools.

- ✓ Waive section 421(b) of the General Education Provisions Act (20 U.S.C. § 1225(b)) to extend the period of availability of school improvement funds for the SEA and all of its LEAs to September 30, 2013.
- ✓ Waive section 1116(b)(12) of the ESEA to permit LEAs to allow their Tier I and Tier II Title I participating schools that will implement a turnaround or restart model to "start over" in the school improvement timeline.
- ✓ Waive the 40 percent poverty eligibility threshold in section 1114(a)(1) of the ESEA to permit LEAs to implement a schoolwide program in a Tier I or Tier II Title I participating school that does not meet the poverty threshold.

The State assures that it will ensure that any LEA that chooses to implement one or more of these waivers will comply with section II.A.8 of the final requirements.

The State assures that it will permit an LEA to implement the waiver(s) only if the LEA receives a School Improvement Grant and requests to implement the waiver(s) in its application. As such, the LEA may only implement the waiver(s) in Tier I, Tier II, and Tier III schools, as applicable, included in its application.

The State assures that, prior to submitting this request in its School Improvement Grant application, the State provided all LEAs in the State that are eligible to receive a School Improvement Grant with notice and a reasonable opportunity to comment on this request and has attached a copy of that notice, as well as copies of any comments it received from LEAs. The State also assures that it provided notice and information regarding this waiver request to the public in the manner in which the State customarily provides such notice and information to the public (e.g., by publishing a notice in the newspaper; by posting information on its website) and has attached a copy of, or link to, that notice.

The State assures that, if it is granted one or more of the waivers requested above, it will submit to the U.S. Department of Education a report that sets forth the name and NCES District Identification Number for each LEA implementing a waiver, including which specific waivers each LEA is implementing.

**PART II: LEA REQUIREMENTS**

An SEA must develop an LEA application form (See Attachment in NMPED Appendix D) that it will use to make subgrants of school improvement funds to eligible LEAs. That application must contain, at a minimum, the information set forth below. An SEA may include other information that it deems necessary in order to award school improvement funds to its LEAs.

**The SEA must attach its LEA application form to its application to the Department for a School Improvement Grant. See Attachment in NMPED Appendix D**

**LEA APPLICATION REQUIREMENTS**

**A. SCHOOLS TO BE SERVED: An LEA must include the following information with respect to the schools it will serve with a School Improvement Grant.**

An LEA must identify each Tier I, Tier II, and Tier III school the LEA commits to serve and identify the model that the LEA will use in each Tier I and Tier II school.

SCHOOL NAME	NCES ID #	TIER I	TIER II	TIER III	INTERVENTION (TIER I AND II ONLY)			
					turnaround	restart	closure	transformation

Note: An LEA that has nine or more Tier I and Tier II schools may not implement the transformation model in more than 50 percent of those schools.

**B. DESCRIPTIVE INFORMATION: An LEA must include the following information in its application for a School Improvement Grant.**

- (1) For each Tier I and Tier II school that the LEA commits to serve, the LEA must demonstrate that—
  - The LEA has analyzed the needs of each school and selected an intervention for each school; and
  - The LEA has the capacity to use school improvement funds to provide adequate resources and related support to each Tier I and Tier II school identified in the LEA’s application in order to implement, fully and effectively, the required activities of the school intervention model it has selected.

- (2) If the LEA is not applying to serve each Tier I, Tier II, or Tier III school, the LEA must explain why it lacks capacity to serve each school.
- (3) The LEA must describe actions it has taken, or will take, to—
  - Design and implement interventions consistent with the final requirements;
  - Recruit, screen, and select external providers, if applicable, to ensure their quality;
  - Align other resources with the interventions;
  - Modify its practices or policies, if necessary, to enable its schools to implement the interventions fully and effectively; and
  - Sustain the reforms after the funding period ends.
- (4) The LEA must include a timeline delineating the steps it will take to implement the selected intervention in each Tier I and Tier II school identified in the LEA’s application.
- (5) The LEA must describe the annual goals for student achievement on the State’s assessments in both reading/language arts and mathematics that it has established in order to monitor its Tier I and Tier II schools that receive school improvement funds.
- (6) For each Tier III school the LEA commits to serve, the LEA must identify the services the school will receive or the activities the school will implement.
- (7) The LEA must describe the goals it has established (subject to approval by the SEA) in order to hold accountable its Tier III schools that receive school improvement funds.
- (8) As appropriate, the LEA must consult with relevant stakeholders regarding the LEA’s application and implementation of school improvement models in its Tier I and Tier II schools.

**C. BUDGET: An LEA must include a budget that indicates the amount of school improvement funds the LEA will use each year in each Tier I, Tier II, and Tier III school it commits to serve.**

The LEA must provide a budget that indicates the amount of school improvement funds the LEA will use each year to—

- Implement the selected model in each Tier I and Tier II school it commits to serve;
- Conduct LEA-level activities designed to support implementation of the selected school intervention models in the LEA’s Tier I and Tier II schools; and
- Support school improvement activities, at the school or LEA level, for each Tier III school identified in the LEA’s application.

Note: An LEA's budget must cover the period of availability, including any extension granted through a waiver, and be of sufficient size and scope to implement the selected school intervention model in each Tier I and Tier II school the LEA commits to serve.

An LEA's budget for each year may not exceed the number of Tier I, Tier II, and Tier III schools it commits to serve multiplied by \$2,000,000.

**D. ASSURANCES: An LEA must include the following assurances in its application for a School Improvement Grant.**

The LEA must assure that it will—

- (1) Use its School Improvement Grant to implement fully and effectively an intervention in each Tier I and Tier II school that the LEA commits to serve consistent with the final requirements;
- (2) Establish annual goals for student achievement on the State's assessments in both reading/language arts and mathematics and measure progress on the leading indicators in section III of the final requirements in order to monitor each Tier I and Tier II school that it serves with school improvement funds, and establish goals (approved by the SEA) to hold accountable its Tier III schools that receive school improvement funds;
- (3) If it implements a restart model in a Tier I or Tier II school, include in its contract or agreement terms and provisions to hold the charter operator, charter management organization, or education management organization accountable for complying with the final requirements; and
- (4) Report to the SEA the school-level data required under section III of the final requirements.

**E. WAIVERS: If the SEA has requested any waivers of requirements applicable to the LEA's School Improvement Grant, an LEA must indicate which of those waivers it intends to implement.**

The LEA must check each waiver that the LEA will implement. If the LEA does not intend to implement the waiver with respect to each applicable school, the LEA must indicate for which schools it will implement the waiver.

- Extending the period of availability of school improvement funds.

Note: If an SEA has requested and received a waiver of the period of availability of school improvement funds, that waiver automatically applies to all LEAs in the State.

- "Starting over" in the school improvement timeline for Tier I and Tier II Title I participating schools implementing a turnaround or restart model.
- Implementing a schoolwide program in a Tier I or Tier II Title I participating school that does not meet the 40 percent poverty eligibility threshold.

Note: If an SEA has not requested and received a waiver of any of these requirements, an LEA may submit a request to the Secretary.

## APPENDIX A

### Final Requirements for School Improvement Grants, as Amended in January 2010

#### I. SEA Priorities in Awarding School Improvement Grants:

A. Defining key terms. To award School Improvement Grants to its LEAs, consistent with section 1003(g)(6) of the ESEA, an SEA must define three tiers of schools, in accordance with the requirements in paragraph 1, to enable the SEA to select those LEAs with the greatest need for such funds. From among the LEAs in greatest need, the SEA must select, in accordance with paragraph 2, those LEAs that demonstrate the strongest commitment to ensuring that the funds are used to provide adequate resources to enable the lowest-achieving schools to meet the accountability requirements in this notice. Accordingly, an SEA must use the following definitions to define key terms:

1. Greatest need. An LEA with the greatest need for a School Improvement Grant must have one or more schools in at least one of the following tiers:

(a) Tier I schools: (i) A Tier I school is a Title I school in improvement, corrective action, or restructuring that is identified by the SEA under paragraph (a)(1) of the definition of “persistently lowest-achieving schools.”

(ii) At its option, an SEA may also identify as a Tier I school an elementary school that is eligible for Title I, Part A funds that--

(A)(1) Has not made adequate yearly progress for at least two consecutive years; or

(2) Is in the State’s lowest quintile of performance based on proficiency rates on the State’s assessments under section 1111(b)(3) of the ESEA in reading/language arts and mathematics combined; and

(B) Is no higher achieving than the highest-achieving school identified by the SEA under paragraph (a)(1)(i) of the definition of “persistently lowest-achieving schools.”

(b) Tier II schools: (i) A Tier II school is a secondary school that is eligible for, but does not receive, Title I, Part A funds and is identified by the SEA under paragraph (a)(2) of the definition of “persistently lowest-achieving schools.”

(ii) At its option, an SEA may also identify as a Tier II school a secondary school that is eligible for Title I, Part A funds that--

(A)(1) Has not made adequate yearly progress for at least two consecutive years; or

(2) Is in the State’s lowest quintile of performance based on proficiency rates on the State’s assessments under section 1111(b)(3) of the ESEA in reading/language arts and mathematics combined; and

(B)(1) Is no higher achieving than the highest-achieving school identified by the SEA under paragraph (a)(2)(i) of the definition of “persistently lowest-achieving schools;” or

(2) Is a high school that has had a graduation rate as defined in 34 CFR 200.19(b) that is less than 60 percent over a number of years.

(c) Tier III schools: (i) A Tier III school is a Title I school in improvement, corrective action, or restructuring that is not a Tier I school.

(ii) At its option, an SEA may also identify as a Tier III school a school that is eligible for Title I, Part A funds that--

(A)(1) Has not made adequate yearly progress for at least two years; or

(2) Is in the State’s lowest quintile of performance based on proficiency rates on the State’s assessments under section 1111(b)(3) of the ESEA in reading/language arts and mathematics combined; and

(B) Does not meet the requirements to be a Tier I or Tier II school.

(iii) An SEA may establish additional criteria to use in setting priorities among LEA applications for funding and to encourage LEAs to differentiate among Tier III schools in their use of school improvement funds.

2. Strongest Commitment. An LEA with the strongest commitment is an LEA that agrees to implement, and demonstrates the capacity to implement fully and effectively, one of the following rigorous interventions in each Tier I and Tier II school that the LEA commits to serve:

(a) Turnaround model: (1) A turnaround model is one in which an LEA must--

(i) Replace the principal and grant the principal sufficient operational flexibility (including in staffing, calendars/time, and budgeting) to implement fully a comprehensive approach in order to substantially improve student achievement outcomes and increase high school graduation rates;

(ii) Using locally adopted competencies to measure the effectiveness of staff who can work within the turnaround environment to meet the needs of students,

(A) Screen all existing staff and rehire no more than 50 percent; and

(B) Select new staff;

(iii) Implement such strategies as financial incentives, increased opportunities for promotion and career growth, and more flexible work conditions that are designed to recruit, place, and retain staff with the skills necessary to meet the needs of the students in the turnaround school;

(iv) Provide staff ongoing, high-quality, job-embedded professional development that is aligned with the school's comprehensive instructional program and designed with school staff to ensure that they are equipped to facilitate effective teaching and learning and have the capacity to successfully implement school reform strategies;

(v) Adopt a new governance structure, which may include, but is not limited to, requiring the school to report to a new "turnaround office" in the LEA or SEA, hire a "turnaround leader" who reports directly to the Superintendent or Chief Academic Officer, or enter into a multi-year contract with the LEA or SEA to obtain added flexibility in exchange for greater accountability;

(vi) Use data to identify and implement an instructional program that is research-based and vertically aligned from one grade to the next as well as aligned with State academic standards;

(vii) Promote the continuous use of student data (such as from formative, interim, and summative assessments) to inform and differentiate instruction in order to meet the academic needs of individual students;

(viii) Establish schedules and implement strategies that provide increased learning time (as defined in this notice); and

(ix) Provide appropriate social-emotional and community-oriented services and supports for students.

(2) A turnaround model may also implement other strategies such as--

(i) Any of the required and permissible activities under the transformation model; or

(ii) A new school model (e.g., themed, dual language academy).

(b) Restart model: A restart model is one in which an LEA converts a school or closes and reopens a school under a charter school operator, a charter management organization (CMO), or an education management organization (EMO) that has been selected through a rigorous review process. (A CMO is a non-profit organization that operates or manages charter schools by centralizing or sharing certain functions and resources among schools. An EMO is a for-profit or non-profit organization that provides “whole-school operation” services to an LEA.) A restart model must enroll, within the grades it serves, any former student who wishes to attend the school.

(c) School closure: School closure occurs when an LEA closes a school and enrolls the students who attended that school in other schools in the LEA that are higher achieving. These other schools should be within reasonable proximity to the closed school and may include, but are not limited to, charter schools or new schools for which achievement data are not yet available.

(d) Transformation model: A transformation model is one in which an LEA implements each of the following strategies:

(1) Developing and increasing teacher and school leader effectiveness.

(i) Required activities. The LEA must--

(A) Replace the principal who led the school prior to commencement of the transformation model;

(B) Use rigorous, transparent, and equitable evaluation systems for teachers and principals that--

(1) Take into account data on student growth (as defined in this notice) as a significant factor as well as other factors such as multiple observation-based assessments of performance and ongoing collections of professional practice reflective of student achievement and increased high school graduations rates; and

(2) Are designed and developed with teacher and principal involvement;

(C) Identify and reward school leaders, teachers, and other staff who, in implementing this model, have increased student achievement and high school graduation rates and identify and remove those who, after ample opportunities have been provided for them to improve their professional practice, have not done so;

(D) Provide staff ongoing, high-quality, job-embedded professional development (e.g., regarding subject-specific pedagogy, instruction that reflects a deeper understanding of the community served by the school, or differentiated instruction) that is aligned with the school's comprehensive instructional program and designed with school staff to ensure they are equipped to facilitate effective teaching and learning and have the capacity to successfully implement school reform strategies; and

(E) Implement such strategies as financial incentives, increased opportunities for promotion and career growth, and more flexible work conditions that are designed to recruit, place, and retain staff with the skills necessary to meet the needs of the students in a transformation school.

(ii) Permissible activities. An LEA may also implement other strategies to develop teachers' and school leaders' effectiveness, such as--

(A) Providing additional compensation to attract and retain staff with the skills necessary to meet the needs of the students in a transformation school;

(B) Instituting a system for measuring changes in instructional practices resulting from professional development; or

(C) Ensuring that the school is not required to accept a teacher without the mutual consent of the teacher and principal, regardless of the teacher's seniority.

(2) Comprehensive instructional reform strategies.

(i) Required activities. The LEA must--

(A) Use data to identify and implement an instructional program that is research-based and vertically aligned from one grade to the next as well as aligned with State academic standards; and

(B) Promote the continuous use of student data (such as from formative, interim, and summative assessments) to inform and differentiate instruction in order to meet the academic needs of individual students.

(ii) Permissible activities. An LEA may also implement comprehensive instructional reform strategies, such as--

(A) Conducting periodic reviews to ensure that the curriculum is being implemented with fidelity, is having the intended impact on student achievement, and is modified if ineffective;

(B) Implementing a schoolwide "response-to-intervention" model;

(C) Providing additional supports and professional development to teachers and principals in order to implement effective strategies to support students with disabilities in the least restrictive environment and to ensure that limited English proficient students acquire language skills to master academic content;

(D) Using and integrating technology-based supports and interventions as part of the instructional program; and

(E) In secondary schools--

(1) Increasing rigor by offering opportunities for students to enroll in advanced coursework (such as Advanced Placement; International Baccalaureate; or science, technology, engineering, and mathematics courses, especially those that incorporate rigorous and relevant project-, inquiry-, or design-based contextual learning opportunities), early-college high schools, dual enrollment programs, or thematic learning academies that prepare students for college and careers, including by providing

appropriate supports designed to ensure that low-achieving students can take advantage of these programs and coursework;

(2) Improving student transition from middle to high school through summer transition programs or freshman academies;

(3) Increasing graduation rates through, for example, credit-recovery programs, re-engagement strategies, smaller learning communities, competency-based instruction and performance-based assessments, and acceleration of basic reading and mathematics skills; or

(4) Establishing early-warning systems to identify students who may be at risk of failing to achieve to high standards or graduate.

(3) Increasing learning time and creating community-oriented schools.

(i) Required activities. The LEA must--

(A) Establish schedules and strategies that provide increased learning time (as defined in this notice); and

(B) Provide ongoing mechanisms for family and community engagement.

(ii) Permissible activities. An LEA may also implement other strategies that extend learning time and create community-oriented schools, such as--

(A) Partnering with parents and parent organizations, faith- and community-based organizations, health clinics, other State or local agencies, and others to create safe school environments that meet students' social, emotional, and health needs;

(B) Extending or restructuring the school day so as to add time for such strategies as advisory periods that build relationships between students, faculty, and other school staff;

(C) Implementing approaches to improve school climate and discipline, such as implementing a system of positive behavioral supports or taking steps to eliminate bullying and student harassment; or

(D) Expanding the school program to offer full-day kindergarten or pre-kindergarten.

(4) Providing operational flexibility and sustained support.

(i) Required activities. The LEA must--

(A) Give the school sufficient operational flexibility (such as staffing, calendars/time, and budgeting) to implement fully a comprehensive approach to substantially improve student achievement outcomes and increase high school graduation rates; and

(B) Ensure that the school receives ongoing, intensive technical assistance and related support from the LEA, the SEA, or a designated external lead partner organization (such as a school turnaround organization or an EMO).

(ii) Permissible activities. The LEA may also implement other strategies for providing operational flexibility and intensive support, such as--

(A) Allowing the school to be run under a new governance arrangement, such as a turnaround division within the LEA or SEA; or

(B) Implementing a per-pupil school-based budget formula that is weighted based on student needs.

### 3. Definitions.

Increased learning time means using a longer school day, week, or year schedule to significantly increase the total number of school hours to include additional time for (a) instruction in core academic subjects including English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography; (b) instruction in other subjects and enrichment activities that contribute to a well-rounded education, including, for example, physical education, service learning, and experiential and work-based learning opportunities that are provided by partnering, as appropriate, with other organizations; and (c) teachers to collaborate, plan, and engage in professional development within and across grades and subjects.<sup>3</sup>

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<sup>3</sup> Research supports the effectiveness of well-designed programs that expand learning time by a minimum of 300 hours per school year. (See Frazier, Julie A.; Morrison, Frederick J. "The Influence of Extended-year Schooling on Growth of Achievement and Perceived Competence in Early Elementary School." *Child Development*. Vol. 69 (2), April 1998, pp.495-497 and research done by Mass2020.) Extending learning into before- and after-school hours can be difficult to implement effectively, but is permissible under this definition with encouragement to closely integrate and coordinate academic work between in school and out of school. (See James-Burdumy, Susanne; Dynarski, Mark; Deke, John. "When Elementary Schools Stay Open Late: Results from The National Evaluation of the 21st Century Community Learning Centers Program." *Educational Evaluation and Policy Analysis*, Vol. 29 (4),

Persistently lowest-achieving schools means, as determined by the State--

(a)(1) Any Title I school in improvement, corrective action, or restructuring that--

(i) Is among the lowest-achieving five percent of Title I schools in improvement, corrective action, or restructuring or the lowest-achieving five Title I schools in improvement, corrective action, or restructuring in the State, whichever number of schools is greater; or

(ii) Is a high school that has had a graduation rate as defined in 34 CFR 200.19(b) that is less than 60 percent over a number of years; and

(2) Any secondary school that is eligible for, but does not receive, Title I funds that--

(i) Is among the lowest-achieving five percent of secondary schools or the lowest-achieving five secondary schools in the State that are eligible for, but do not receive, Title I funds, whichever number of schools is greater; or

(ii) Is a high school that has had a graduation rate as defined in 34 CFR 200.19(b) that is less than 60 percent over a number of years.

(b) To identify the lowest-achieving schools, a State must take into account both--

(i) The academic achievement of the “all students” group in a school in terms of proficiency on the State’s assessments under section 1111(b)(3) of the ESEA in reading/language arts and mathematics combined; and

(ii) The school’s lack of progress on those assessments over a number of years in the “all students” group.

Student growth means the change in achievement for an individual student between two or more points in time. For grades in which the State administers summative assessments in reading/language arts and mathematics, student growth data must be based on a student’s score on the State’s assessment under section 1111(b)(3) of the ESEA. A State may also include other measures that are rigorous and comparable across classrooms.

4. Evidence of strongest commitment. (a) In determining the strength of an LEA's commitment to ensuring that school improvement funds are used to provide adequate resources to enable Tier I and Tier II schools to improve student achievement substantially, an SEA must consider, at a minimum, the extent to which the LEA's application demonstrates that the LEA has taken, or will take, action to--

- (i) Analyze the needs of its schools and select an intervention for each school;
- (ii) Design and implement interventions consistent with these requirements;
- (iii) Recruit, screen, and select external providers, if applicable, to ensure their quality;
- (iv) Align other resources with the interventions;
- (v) Modify its practices or policies, if necessary, to enable it to implement the interventions fully and effectively; and
- (vi) Sustain the reforms after the funding period ends.

(b) The SEA must consider the LEA's capacity to implement the interventions and may approve the LEA to serve only those Tier I and Tier II schools for which the SEA determines that the LEA can implement fully and effectively one of the interventions.

B. Providing flexibility.

1. An SEA may award school improvement funds to an LEA for a Tier I or Tier II school that has implemented, in whole or in part, an intervention that meets the requirements under section I.A.2(a), 2(b), or 2(d) of these requirements within the last two years so that the LEA and school can continue or complete the intervention being implemented in that school.

2. An SEA may seek a waiver from the Secretary of the requirements in section 1116(b) of the ESEA in order to permit a Tier I or Tier II Title I participating school implementing an intervention that meets the requirements under section I.A.2(a) or 2(b) of these requirements in an LEA that receives a School Improvement Grant to "start over" in the school improvement timeline. Even though a school implementing the waiver would no longer be in improvement, corrective action, or restructuring, it may receive school improvement funds.

3. An SEA may seek a waiver from the Secretary to enable a Tier I or Tier II Title I participating school that is ineligible to operate a Title I schoolwide program and is operating a Title I targeted assistance program to operate a schoolwide program in order to implement an intervention that meets the requirements under section I.A.2(a), 2(b), or 2(d) of these requirements.

4. An SEA may seek a waiver from the Secretary to extend the period of availability of school improvement funds beyond September 30, 2011 so as to make those funds available to the SEA and its LEAs for up to three years.

5. If an SEA does not seek a waiver under section I.B.2, 3, or 4, an LEA may seek a waiver.

## II. Awarding School Improvement Grants to LEAs:

### A. LEA requirements.

1. An LEA may apply for a School Improvement Grant if it receives Title I, Part A funds and has one or more schools that qualify under the State's definition of a Tier I, Tier II, or Tier III school.

2. In its application, in addition to other information that the SEA may require--

(a) The LEA must--

(i) Identify the Tier I, Tier II, and Tier III schools it commits to serve;

(ii) Identify the intervention it will implement in each Tier I and Tier II school it commits to serve;

(iii) Demonstrate that it has the capacity to use the school improvement funds to provide adequate resources and related support to each Tier I and Tier II school it commits to serve in order to implement fully and effectively one of the four interventions identified in section I.A.2 of these requirements;

(iv) Provide evidence of its strong commitment to use school improvement funds to implement the four interventions by addressing the factors in section I.A.4(a) of these requirements;

(v) Include a timeline delineating the steps the LEA will take to implement the selected intervention in each Tier I and Tier II school identified in the LEA's application; and

(vi) Include a budget indicating how it will allocate school improvement funds among the Tier I, Tier II, and Tier III schools it commits to serve.

(b) If an LEA has nine or more Tier I and Tier II schools, the LEA may not implement the transformation model in more than 50 percent of those schools.

3. The LEA must serve each Tier I school unless the LEA demonstrates that it lacks sufficient capacity (which may be due, in part, to serving Tier II schools) to undertake one of these rigorous interventions in each Tier I school, in which case the LEA must indicate the Tier I schools that it can effectively serve. An LEA may not serve with school improvement funds awarded under section 1003(g) of the ESEA a Tier I or Tier II school in which it does not implement one of the four interventions identified in section I.A.2 of these requirements.

4. The LEA's budget for each Tier I and Tier II school it commits to serve must be of sufficient size and scope to ensure that the LEA can implement one of the rigorous interventions identified in section I.A.2 of these requirements. The LEA's budget must cover the period of availability of the school improvement funds, taking into account any waivers extending the period of availability received by the SEA or LEA.

5. The LEA's budget for each Tier III school it commits to serve must include the services it will provide the school, particularly if the school meets additional criteria established by the SEA.

6. An LEA that commits to serve one or more Tier I, Tier II, or Tier III schools that do not receive Title I, Part A funds must ensure that each such school it serves receives all of the State and local funds it would have received in the absence of the school improvement funds.

7. An LEA in which one or more Tier I schools are located and that does not apply to serve at least one of these schools may not apply for a grant to serve only Tier III schools.

8. (a) To monitor each Tier I and Tier II school that receives school improvement funds, an LEA must--

(i) Establish annual goals for student achievement on the State's assessments in both reading/language arts and mathematics; and

(ii) Measure progress on the leading indicators in section III of these requirements.

(b) The LEA must also meet the requirements with respect to adequate yearly progress in section 1111(b)(2) of the ESEA.

9. If an LEA implements a restart model, it must hold the charter school operator, CMO, or EMO accountable for meeting the final requirements.

B. SEA requirements.

1. To receive a School Improvement Grant, an SEA must submit an application to the Department at such time, and containing such information, as the Secretary shall reasonably require.

2. (a) An SEA must review and approve, consistent with these requirements, an application for a School Improvement Grant that it receives from an LEA.

(b) Before approving an LEA's application, the SEA must ensure that the application meets these requirements, particularly with respect to--

(i) Whether the LEA has agreed to implement one of the four interventions identified in section I.A.2 of these requirements in each Tier I and Tier II school included in its application;

(ii) The extent to which the LEA's application shows the LEA's strong commitment to use school improvement funds to implement the four interventions by addressing the factors in section I.A.4(a) of these requirements;

(iii) Whether the LEA has the capacity to implement the selected intervention fully and effectively in each Tier I and Tier II school identified in its application; and

(iv) Whether the LEA has submitted a budget that includes sufficient funds to implement the selected intervention fully and effectively in each Tier I and Tier II school it identifies in its application and whether the budget covers the period of availability of the funds, taking into account any waiver extending the period of availability received by either the SEA or the LEA.

(c) An SEA may, consistent with State law, take over an LEA or specific Tier I or Tier II schools in order to implement the interventions in these requirements.

(d) An SEA may not require an LEA to implement a particular model in one or more schools unless the SEA has taken over the LEA or school.

(e) To the extent that a Tier I or Tier II school implementing a restart model becomes a charter school LEA, an SEA must hold the charter school LEA accountable, or ensure that the charter school authorizer holds it accountable, for complying with these requirements.

3. An SEA must post on its Web site, within 30 days of awarding School Improvement Grants to LEAs, all final LEA applications as well as a summary of those grants that includes the following information:

(a) Name and National Center for Education Statistics (NCES) identification number of each LEA awarded a grant.

(b) Amount of each LEA's grant.

(c) Name and NCES identification number of each school to be served.

(d) Type of intervention to be implemented in each Tier I and Tier II school.

4. If an SEA does not have sufficient school improvement funds to award, for up to three years, a grant to each LEA that submits an approvable application, the SEA must give priority to LEAs that apply to serve Tier I or Tier II schools.

5. An SEA must award a School Improvement Grant to an LEA in an amount that is of sufficient size and scope to support the activities required under section 1116 of the ESEA and these requirements. The LEA's total grant may not be less than \$50,000 or more than \$2,000,000 per year for each Tier I, Tier II, and Tier III school that the LEA commits to serve.

6. If an SEA does not have sufficient school improvement funds to allocate to each LEA with a Tier I or Tier II school an amount sufficient to enable the school to implement fully and effectively the specified intervention throughout the period of availability, including any extension afforded through a waiver, the SEA may take into account the distribution of Tier I and Tier II schools among such LEAs in the State to ensure that Tier I and Tier II schools throughout the State can be served.

7. An SEA must award funds to serve each Tier I and Tier II school that its LEAs commit to serve, and that the SEA determines its LEAs have the capacity to serve, prior to awarding funds to its LEAs to serve any Tier III schools. If an SEA has awarded school improvement funds to its LEAs for each Tier I and Tier II school that its LEAs commit to serve in accordance with these requirements, the SEA may then, consistent with section II.B.9, award remaining school improvement funds to its LEAs for the Tier III schools that its LEAs commit to serve.

8. In awarding School Improvement Grants, an SEA must apportion its school improvement funds in order to make grants to LEAs, as applicable, that are renewable for the length of the period of availability of the funds, taking into account any waivers that may have been requested and received by the SEA or an individual LEA to extend the period of availability.

9. (a) If not every Tier I school in a State is served with FY 2009 school improvement funds, an SEA must carry over 25 percent of its FY 2009 funds, combine those funds with FY 2010 school improvement funds, and award those funds to eligible LEAs consistent with these requirements. This requirement does not apply in a State that does not have sufficient school improvement funds to serve all the Tier I schools in the State.

(b) If each Tier I school in a State is served with FY 2009 school improvement funds, an SEA may reserve up to 25 percent of its FY 2009 allocation and award those funds in combination with its FY 2010 funds consistent with these requirements.

10. In identifying Tier I and Tier II schools in a State for purposes of allocating funds appropriated for School Improvement Grants under section 1003(g) of the ESEA for any year subsequent to FY 2009, an SEA must exclude from consideration any school that was previously identified as a Tier I or Tier II school and in which an LEA is implementing one of the four interventions identified in these requirements using funds made available under section 1003(g) of the ESEA.

11. An SEA that is participating in the “differentiated accountability pilot” must ensure that its LEAs use school improvement funds available under section 1003(g) of the ESEA in a Tier I or Tier II school consistent with these requirements.

12. Before submitting its application for a School Improvement Grant to the Department, the SEA must consult with its Committee of Practitioners established under section 1903(b) of the ESEA regarding the rules and policies contained therein and may consult with other stakeholders that have an interest in its application.

C. Renewal for additional one-year periods.

(a) If an SEA or an individual LEA requests and receives a waiver of the period of availability of school improvement funds, an SEA--

(i) Must renew the School Improvement Grant for each affected LEA for additional one-year periods commensurate with the period of availability if the LEA demonstrates that its Tier I and Tier II schools are meeting the requirements in section II.A.8 and that its Tier III schools are meeting the goals established by the LEA and approved by the SEA; and

(ii) May renew an LEA's School Improvement Grant if the SEA determines that the LEA is making progress toward meeting the requirements in section II.A.8 or the goals established by the LEA.

(b) If an SEA does not renew an LEA's School Improvement Grant because the LEA's participating schools are not meeting the requirements in section II.A.8 or the goals established by the LEA, the SEA may reallocate those funds to other eligible LEAs, consistent with these requirements.

D. State reservation for administration, evaluation, and technical assistance.

An SEA may reserve from the school improvement funds it receives under section 1003(g) of the ESEA in any given year no more than five percent for administration, evaluation, and technical assistance expenses. An SEA must describe in its application for a School Improvement Grant how the SEA will use these funds.

E. A State Whose School Improvement Grant Exceeds the Amount the State May Award to Eligible LEAs.

In some States in which a limited number of Title I schools are identified for improvement, corrective action, or restructuring, the SEA may be able to make School Improvement Grants, renewable for additional years commensurate with the period of availability of the funds, to each LEA with a Tier I,

Tier II, or Tier III school without using the State’s full allocation under section 1003(g) of the ESEA. An SEA in this situation may reserve no more than five percent of its FY 2009 allocation of school improvement funds for administration, evaluation, and technical assistance expenses under section 1003(g)(8) of the ESEA. The SEA may retain sufficient school improvement funds to serve, for succeeding years, each Tier I, II, and III school that generates funds for an eligible LEA. The Secretary may reallocate to other States any remaining school improvement funds from States with surplus funds.

III. Reporting and Evaluation:

A. Reporting metrics.

To inform and evaluate the effectiveness of the interventions identified in these requirements, the Secretary will collect data on the metrics in the following chart. The Department already collects most of these data through EDFacts and will collect data on two metrics through SFSF reporting. Accordingly, an SEA must only report the following new data with respect to school improvement funds:

1. A list of the LEAs, including their NCES identification numbers, that received a School Improvement Grant under section 1003(g) of the ESEA and the amount of the grant.

2. For each LEA that received a School Improvement Grant, a list of the schools that were served, their NCES identification numbers, and the amount of funds or value of services each school received.

3. For any Tier I or Tier II school, school-level data on the metrics designated on the following chart as “SIG” (School Improvement Grant):

Metric	Source	Achievement Indicators	Leading Indicators
<b>SCHOOL DATA</b>			
Which intervention the school used (i.e., turnaround, restart, closure, or transformation )	<b>LEA will report this data on their School Web EPSS</b>		
AYP status	<u>EDFacts</u>	✓	

Metric	Source	Achievement Indicators	Leading Indicators
Which AYP targets the school met and missed	EDFacts	✓	
School improvement status	EDFacts	✓	
Number of minutes within the school year	New Mexico State Statute 22-2-8.1. and Administrative Code 6.29.1.9 LEA will report this data on their School Web EPSS		✓
<b>STUDENT OUTCOME/ACADEMIC PROGRESS DATA</b>			
Percentage of students at or above each proficiency level on State assessments in reading/language arts and mathematics (e.g., Basic, Proficient, Advanced), by grade and by student subgroup	EDFacts	✓	
Student participation rate on State assessments in reading/language arts and in mathematics, by student subgroup	EDFacts		✓
Average scale scores on State assessments in reading/language arts and in mathematics, by grade, for the “all students” group, for each achievement quartile, and for each subgroup	NMPED Academic Growth and Analysis Bureau.	✓	
Percentage of limited English proficient students who attain English language proficiency	EDFacts	✓	
Graduation rate	EDFacts	✓	
Dropout rate	EDFacts		✓
Student attendance rate	EDFacts		✓
Number and percentage of students completing advanced coursework (e.g., AP/IB), early-	AP/IB-only enrollment		✓

Metric	Source	Achievement Indicators	Leading Indicators
college high schools, or dual enrollment classes	<b>data is available. Dual enrollment- all data available in STARS (Student Teacher Accountability Report System)</b>		
College enrollment rates	Higher Education Department and STARS	✓	
<b>STUDENT CONNECTION AND SCHOOL CLIMATE</b>			
Discipline incidents	EDFacts		✓
Truants	EDFacts		✓
<b>TALENT</b>			
Distribution of teachers by performance level on LEA's teacher evaluation system	NEW SFSF Phase II		✓
Teacher attendance rate	<b>LEA will collect and report on their School Web EPSS</b>		✓

4. An SEA must report these metrics for the school year prior to implementing the intervention, if the data are available, to serve as a baseline, and for each year thereafter for which the SEA allocates school improvement funds under section 1003(g) of the ESEA. With respect to a school that is closed, the SEA need report only the identity of the school and the intervention taken--i.e., school closure.

B. Evaluation.

An LEA that receives a School Improvement Grant must participate in any evaluation of that grant conducted by the Secretary.

## APPENDIX B

### LEA BUDGETS AND SEA ALLOCATIONS

School Improvement Grant funding totals \$3.5 billion in FY 2009: \$3 billion from the American Recovery and Reinvestment Act and \$546 million from the regular FY 2009 appropriation. This means that, for the first time, the program can provide the substantial funding, over a multi-year period, necessary for the successful implementation of school intervention models. While the authorizing statute (section 1003(g)(5) of the ESEA) sets a \$500,000 limit on the amount of funding that may be awarded for each participating school under the School Improvement Grants program, Congress recently enacted appropriations language allowing an SEA to award up to \$2 million for each participating school. This higher limit will permit an SEA to award directly the amount that the Department believes typically would be required for the successful implementation of the turnaround, restart, or transformation model in a Tier I or Tier II school (*e.g.*, a school of 500 students might require \$1 million annually, whereas a large, comprehensive high school might require the full \$2 million annually). The Department believes that the new award limit should encourage LEAs to focus more closely on turning around their Tier I and Tier II schools and to serve Tier III schools only when the district has the capacity to serve and is prepared to implement thoughtful interventions and supports in those schools.

In awarding school improvement funds, an SEA must give priority to LEAs that apply to serve Tier I or Tier II schools. In addition, an SEA must ensure that all Tier I and Tier II schools across the State that its LEAs commit to serve, and that the SEA determines its LEAs have capacity to serve, are awarded sufficient school improvement funding to fully and effectively implement the selected school intervention models over the period of availability of the funds before the SEA awards any funds for Tier III schools.

The following describes the requirements and priorities that apply to LEA budgets and SEA allocations.

#### **LEA Budgets**

An LEA's proposed budget should cover a three-year period (if the SEA or LEA has applied for a waiver to extend the period of availability of funds) and should take into account the following:

1. The number of Tier I and Tier II schools that the LEA commits to serve and the intervention model (turnaround, restart, closure, or transformation) selected for each school.
2. The budget request for each Tier I and Tier II school must be of sufficient size and scope to support full and effective implementation of the selected intervention over a period of three years. First-year budgets may be higher than in subsequent years due to one-time start-up costs.
3. The portion of school closure costs covered with school improvement funds may be lower than the amount required for the other models and would typically cover only one year.
4. The LEA may request funding for LEA-level activities that will support the implementation of school intervention models in Tier I and Tier II schools.
5. The number of Tier III schools that the LEA commits to serve, if any, and the services or benefits the LEA plans to provide to these schools over the three-year grant period.

6. The maximum funding available to the LEA each year is determined by multiplying the total number of Tier I, Tier II, and Tier III schools that the LEA commits to serve by \$2 million (the maximum amount that an SEA may award to an LEA for each participating school).
7. If the SEA does not request a waiver from the Secretary to extend the availability of school improvement funds to permit three-year awards, the LEA may request such a waiver.

### **SEA Allocations to LEAs**

An SEA must allocate the LEA share of school improvement funds (*i.e.*, 95 percent of the SEA's allocation from the Department) in accordance with the following requirements:

1. The SEA must give priority to LEAs that apply to serve Tier I or Tier II schools.
2. An SEA may not award funds to any LEA for Tier III schools unless and until the SEA has awarded funds to serve fully, throughout the period of availability, all Tier I and Tier II schools across the State that its LEAs commit to serve and that the SEA determines its LEAs have capacity to serve.
3. An LEA with one or more Tier I schools may not receive funds to serve only its Tier III schools.
4. In making awards consistent with these requirements, an SEA must take into account LEA capacity to implement the selected school interventions, and also may take into account other factors, such as the number of schools served in each tier and the overall quality of LEA applications.
5. An SEA that does not have sufficient school improvement funds to allow each LEA with a Tier I or Tier II school to implement fully the selected intervention models may take into account the distribution of Tier I and Tier II schools among such LEAs in the State to ensure that Tier I and Tier II schools throughout the State can be served.
6. Consistent with the final requirements, an SEA may award an LEA less funding than it requests. For example, an SEA that does not have sufficient funds to serve fully all of its Tier I and Tier II schools may approve an LEA's application with respect to only a portion of the LEA's Tier I or Tier II schools to enable the SEA to award school improvement funds to Tier I and Tier II schools across the State. Similarly, an SEA may award an LEA funds sufficient to serve only a portion of the Tier III schools the LEA requests to serve.
7. An SEA that has served each of its Tier I schools with FY 2009 school improvement funds may reserve up to 25 percent of its FY 2009 allocation and award those funds in combination with its FY 2010 funds consistent with the final requirements.
8. An SEA that has not served each of its Tier I schools with FY 2009 school improvement funds must carry over 25 percent of its FY 2009 funds, combine those funds with FY 2010 school improvement funds, and award those funds to eligible LEAs consistent with the final requirements. This requirement does not apply to an SEA that does not receive sufficient school improvement funds to serve all of its Tier I schools.

An SEA's School Improvement Grant award to an LEA must:

1. Include not less than \$50,000 or more than \$2 million per year for each participating school (*i.e.*, the Tier I, Tier II, and Tier III schools that the LEA commits to serve and that the SEA approves the LEA to serve).
2. Provide sufficient school improvement funds to implement fully and effectively one of the four intervention models in each Tier I and Tier II school the SEA approves the LEA to serve or close, as well as sufficient funds for serving participating Tier III schools. An SEA may reduce an LEA's requested budget by any amounts proposed for interventions in one or more schools that the SEA does not approve the LEA to serve (*i.e.*, because the LEA does not have the capacity to serve the school or because the SEA is approving only a portion of Tier I and Tier II schools in certain LEAs in order to serve Tier I and Tier II schools across the State). An SEA also may reduce award amounts if it determines that an LEA can implement its planned interventions with less than the amount of funding requested in its budget.
3. Consistent with the priority in the final requirements, provide funds for Tier III schools only if the SEA has already awarded funds for all Tier I and Tier II schools across the State that its LEAs commit to serve and that the SEA determines its LEAs have capacity to serve.
4. Include any requested funds for LEA-level activities that support implementation of the school intervention models.
5. Apportion FY 2009 school improvement funds so as to provide funding to LEAs over three years (assuming the SEA has requested and received a waiver of the period of availability beyond September 30, 2011).

### Appendix C

	<b>Schools an SEA MUST identify in each tier</b>	<b>Newly eligible schools an SEA MAY identify in each tier</b>
<b>Tier I</b>	Schools that meet the criteria in paragraph (a)(1) in the definition of “persistently lowest-achieving schools.” <sup>1</sup>	Title I eligible <sup>2</sup> elementary schools that are no higher achieving than the highest-achieving school that meets the criteria in paragraph (a)(1)(i) in the definition of “persistently lowest-achieving schools” <u>and</u> that are: <ul style="list-style-type: none"> <li>• in the bottom 20% of all schools in the State based on proficiency rates; <u>or</u></li> <li>• have not made AYP for two consecutive years.</li> </ul>
<b>Tier II</b>	Schools that meet the criteria in paragraph (a)(2) in the definition of “persistently lowest-achieving schools.”	Title I eligible secondary schools that are (1) no higher achieving than the highest-achieving school that meets the criteria in paragraph (a)(2)(i) in the definition of “persistently lowest-achieving schools” or (2) high schools that have had a graduation rate of less than 60 percent over a number of years <u>and</u> that are: <ul style="list-style-type: none"> <li>• in the bottom 20% of all schools in the State based on proficiency rates; <u>or</u></li> <li>• have not made AYP for two consecutive years.</li> </ul>
<b>Tier III</b>	Title I schools in improvement, corrective action, or restructuring that are not in Tier I. <sup>3</sup>	Title I eligible schools that do not meet the requirements to be in Tier I or Tier II <u>and</u> that are: <ul style="list-style-type: none"> <li>• in the bottom 20% of all schools in the State based on proficiency rates; <u>or</u></li> <li>• have not made AYP for two years.</li> </ul>

<sup>1</sup> “Persistently lowest-achieving schools” means, as determined by the State--

(a)(1) Any Title I school in improvement, corrective action, or restructuring that--

- (i) Is among the lowest-achieving five percent of Title I schools in improvement, corrective action, or restructuring or the lowest-achieving five Title I schools in improvement, corrective action, or restructuring in the State, whichever number of schools is greater; or
- (ii) Is a high school that has had a graduation rate as defined in 34 CFR 200.19(b) that is less than 60 percent over a number of years; and

(2) Any secondary school that is eligible for, but does not receive, Title I funds that--

- (i) Is among the lowest-achieving five percent of secondary schools or the lowest-achieving five secondary schools in the State that are eligible for, but do not receive, Title I funds, whichever number of schools is greater; or
- (ii) Is a high school that has had a graduation rate as defined in 34 CFR 200.19(b) that is less than 60 percent over a number of years.

<sup>2</sup> For the purposes of schools that may be added to Tier I, Tier II, or Tier III, “Title I eligible” schools may be schools that are eligible for, but do not receive, Title I, Part A funds or schools that are Title I participating (i.e., schools that are eligible for and do receive Title I, Part A funds).

<sup>3</sup> Certain Title I schools in improvement, corrective action, or restructuring that are not in Tier I may be in Tier II rather than Tier III. In particular, Title I secondary schools in improvement, corrective action, or restructuring that are not in Tier I may be in Tier II if they meet the criteria in section I.A.1(b)(ii)(A)(2) and (B) and an SEA chooses to include them in Tier II.

Appendix D  
SIG LEA Application



**STATE OF NEW MEXICO**  
PUBLIC EDUCATION DEPARTMENT  
Priority Schools Bureau  
School Improvement Grant 2010

**School Improvement Grant (SIG) LEA Application**

**Purpose**

School Improvement Grants, authorized under section 1003 (g) of Title I of the Elementary and Secondary Education Act of 1965 (title I or ESEA), are grants, through State educational agencies (SEAs), to local educational agencies (LEAs) for use in Title I schools identified for improvement, corrective action, or restructuring that demonstrate the greatest need for the funds and the strongest commitment to use the funds to provide adequate resources in order to raise substantially the achievement of their students so as to enable the schools to make adequate yearly progress and exit improvement status.

**Availability of Funds**

The SEA (New Mexico Public Education Department- NMPED) must allocate at least 95% of its school improvement funds directly to LEAs in accordance with the final requirements (summarized in Appendix B).

For fiscal year (FY) 2010, funds are available by NMPED by way of a sub-grant to the LEA not less than \$50,000.00 or more than \$2,000,000.00.

**District Application Process**

To apply for a School Improvement Grant, an LEA must complete and submit an application to NMPED – Priority Schools Bureau via the WebEPSS on-line tool at: <http://tracker.ped.state.nm.us>

Please note that a District submission must include the following attachments, as indicated on the application form:

- Worksheet A: A list of eligible school (s)
- Worksheet B: Data Review
- Worksheet C: Attestation of Selected Model

**Application Deadline**

Applications are due on or before March 22, 2010

**For Further Information**

If you have any questions, please contact Dr. Sheila Hyde at 505-827-6517 or by e-mail at [sheila.hyde@state.nm.us](mailto:sheila.hyde@state.nm.us)



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LEA Application Cover Sheet

**District Applicant Name**

\_\_\_\_\_

**Primary District Contact for the School Improvement Grant**

Name \_\_\_\_\_

Position and Office \_\_\_\_\_

Email Address \_\_\_\_\_

Telephone Number \_\_\_\_\_

**Secondary District Contact for the School Improvement Grant (Optional)**

Name \_\_\_\_\_

Position and Office \_\_\_\_\_

Email Address \_\_\_\_\_

Telephone Number \_\_\_\_\_

**Superintendent (Printed Name)** \_\_\_\_\_ **Telephone** \_\_\_\_\_

**Signature of the Superintendent** \_\_\_\_\_ **Date** \_\_\_\_\_

*The School District, through its authorized representative, agrees to comply with all requirements applicable to the School Improvement Grants program, including the assurances contained herein and the conditions that apply to any waivers that the state receives through this application.*



# STATE OF NEW MEXICO

PUBLIC EDUCATION DEPARTMENT

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## LEA Application

### Part I: District Requirements

- A. Eligible Schools:** Districts must provide a list of each Tier I and Tier III school to be considered within this application for SIG funding. Complete Worksheet A. Note: an LEA that has nine or more Tier I and/or Tier III schools may not implement the transformation model in more than 50 percent of those schools.
- B. Evaluation Criteria:** The District must provide information about how it will address the following evaluation criteria as set forth in the School Improvement Grant.

#### Part 1

The three actions listed in Part 1 are ones that a District must accomplish before submitting an application for a School Improvement Grant.

- (1) The eligible schools must have completed a CLASS School Self Assessment and its components therein to arrive at no less than four (4) opportunities for improvement priorities and incorporated those priorities into the Educational Plan for Student Success (EPSS). Complete Worksheet B.
- (2) The District must demonstrate that it has the capacity to use school improvement funds to provide adequate resources and related support to each eligible school identified in this application in order to implement fully and effectively the selected intervention in each of those schools. See Worksheet C
- (3) The District's budget must include how the selected intervention will fully and effectively support each eligible schools improvement activities. See Worksheet C





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## Worksheet B: Data

Use information from the CLASS District/School Self Assessment to complete this section. Please complete the components of Worksheet B to reflect that the District has analyzed the needs of each eligible school. Add additional pages as needed.

### School Data

- 1, Indicate AYP Status \_\_\_\_\_
2. Which AYP targets did the school meet? Which AYP targets did the school miss?

Insert school report card table here

### Student Outcomes/Academic Progress Data

1. Please indicate the percentage of students at or above each proficiency level on State assessment in reading/language arts and mathematics (e.g. Basic, Proficient, Advanced), by grade and by student subgroup.

Insert table to organize above information

2. Please indicate Average scale scores on State assessment in reading/language arts and in mathematics, by grade, for “all students” group for each achievement quartile, and for each subgroup.

Insert table to organize above information

3. Please indicate the percentage of limited English proficient students who attain English language proficiency. \_\_\_\_\_
4. Please indicate the Graduation rate \_\_\_\_\_
5. Please indicate College enrollment rates (HS only) \_\_\_\_\_



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**Part 2**

The Actions in Part 2 require that the District complete them as part of the School Improvement Grant.

- (1) Design and implement intervention consistent with selected intervention model
- (2) Align resources with selected intervention model
- (3) Modify its practices or policies, if necessary, to enable it to implement the interventions fully and effectively.
- (4) Sustain the reforms after the funding period ends

**C. Capacity: The District must demonstrate capacity to implement the selected intervention.**

The District must serve each of its eligible schools using one of the four school intervention models (Complete Worksheet C):

**Turnaround Model**

- Replace principal and rehire no more than 50% of the staff,
- Adopt new governance,
- Implement a new or revised instructional program.
- Incorporate interventions that take into account the recruitment, placement and development of staff

**Close/Consolidate Model**

School Closure occurs when a District closes a school and enrolls the student who attended that school in other schools in the District that are higher achieving. These other schools should be within reasonable proximity to the closed school and may include, but are not limited to, charter schools or new schools for which achievement data are not yet available

**Restart Model**

Close the school and restart it under the management of a charter school operator, a charter management organization (CMO), or an educational management organization (EMO). A restart school must admit, within the grades it serves, any former student who wishes to attend.

**Transformation Model**

- Develop teacher and leader effectiveness
- Comprehensive instruction programs using student achievement data
- Extend learning time and create community- oriented school
- Provide operating flexibility and intensive support



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**Under SIG's transformation model, a school is required to implement all of the following four strategies:**

**1) Developing teacher and school leader effectiveness**

- Use evaluation that are based in significant measure on student growth to improve teachers' and school leaders' performance;
- Identify and reward school leaders, teachers and other staff who improve student achievement outcomes and identify and remove those who do not;
- Replace the principal who led the school prior to commencement of the transformation model;
- Provide relevant, ongoing, high-quality job-embedded professional development
- Implement strategies designed to recruit, place and retain high quality staff.

**2) Comprehensive Instructional reform strategies**

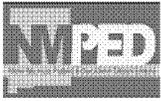
- Use data to identify and implement comprehensive research-based instructional programs that are vertically aligned from one grade to the next as well as aligned with state academic standard and
- Differentiate instruction to meet students' needs.

**3) Extending learning time and creating community-oriented schools**

- Provide more time for students to learn core academic content by expanding the school day, the school week, or the school year, and increasing instructional time for core academic subjects during the school day.
- Provide more time for teachers to collaborate
- Provide more time for enrichment activities for students
- Provide ongoing mechanisms for family and community engagement

**4) Providing operating flexibility and sustained support.**

- Give the school sufficient operating flexibility (including in staffing, calendar/time, and budgeting) to implement fully a comprehensive approach to substantially improve student achievement outcomes and
- Ensure that the school receives ongoing intensive technical assistance and relation support from the LEA, the SEA or a designated external lead partner organization (such as a school turnaround organization or an EMO).



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**Worksheet C: Attestation of Selected Model**

**The District must estimate the full cost of implementing its selected intervention for each eligible school it commits to serve, and to give priority to including these costs in its budget proposal. The Districts proposed budget should cover a three year period.**

How many eligible schools does your school district commit to serve? \_\_\_\_\_

Which intervention model (Turnaround, Restart, Closure or Transformation) has the District selected per school? (Please complete a separate Worksheet C for each school.)

**The following pages contain the specific Strategies and Action Steps for each model that are embedded in the Web EPSS. The LEA must complete all sections of the Model it selects for each school. These are the criteria that the School Improvement Review Panel will use to review and approve/disapprove each school application.**

The WebEPSS for both the district and the school includes annual goals and strategic objectives for all students as well as each sub group as identified within each school and in the district. The goals including ones that address reading/language arts and math are preloaded in the WebEPSS and strategic objectives are written by each school and district to reflect the annual measureable objective as identified by the NMPED.

The NMPED uses external consultants to review the WebEPSS for compliance and for consistency with their current levels of performance annually. Feedback is provided for schools and districts in order to assure improvement in the development and implementation of the plan.

Additionally, schools and districts use their short cycle assessment data to set strategic objectives for improvement to meet benchmarks in the areas of reading/language arts and math, as well as all sub populations not meeting AYP.

Every strategy in the WebEPSS includes a description of the strategy. Additionally, every strategy will have multiple Action Steps that will further describe that action and how the LEA intends to meet the strategy inclusive of begin and end dates, budget and task assignments. A section to capture timeline notes is part of every Action Step and LEA's will inform the SEA of their progress by inputting this information into their plan as reviews take place. A feature of the WebEPSS tool allows for attaching documentation to parts of the plan that support either the goal, strategy or action step. Each LEA has been trained on how to attach further information as deemed necessary.



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**Worksheet C: Attestation of Selected Model**

If the **Restart Model** is selected:

**Strategy:** Rigorous Review Process of Restart Operators

**Description:** A pool of potential partners will be identified. A “rigorous review process” that permits the District to examine a prospective Restart Operator’s reform plans and strategies will be completed.

**Action Step**

Title:  Description:    Begin Date: _____ End Date: _____  Timeline Notes:  Estimated Funding Needed:  Person(s) Responsible: _____	<p align="center"><b>Core Implementation Components</b></p> <ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul>	<p align="center"><b>Implementation Actions for District</b></p> <ul style="list-style-type: none"> <li>▪ Develop district teams in the review of potential models?</li> <li>▪ Plan to recruit and train school leaders?</li> <li>▪ Develop key relationship terms with new school operators to make certain they can be held accountable for key</li> <li>▪ Develop non-negotiable Performance goals and benchmarks – what is expected?</li> <li>▪ Outline clear and enforceable consequences for failing to meet goals.</li> <li>▪ Ensure alignment between outside services and existing district services</li> <li>▪ <u>Develop financial incentives to hold outside vendors</u></li> </ul>
		<p align="center"><b>Implementation Actions for Schools</b></p> <ul style="list-style-type: none"> <li>▪ Vision for the new school model – how will desired results be accomplished?</li> <li>▪ Goals, improvement targets, timelines – through improvement plan</li> <li>▪ Critical mass of support among key stakeholders</li> <li>▪ Support for positive learning culture among staff</li> </ul>



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**Restart Model**

**Strategy:** Assurance that restarting the school benefits students all students

**Description:** SIG funds received by the District for the school are used only for the grades being served by the restart operator, unless the District is implementing one of the other SIG models with respect to the other grades served by the school.

**Action Step:**

<p>Title:</p> <p>Description:</p> <p>Begin Date:</p> <p>End Date:</p> <p>Timeline Notes:</p> <p>Estimated Funding Needed:</p> <p>Person(s) Responsible:</p>	<p><b>Core Implementation Components</b></p> <ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul>	<p><b>Implementation Actions for District</b></p> <ul style="list-style-type: none"> <li>▪ Plan to recruit and train school leaders?</li> <li>▪ Develop key relationship terms with new school operators to make certain they can be held accountable for key</li> <li>▪ Develop non-negotiable Performance goals and benchmarks – what is expected?</li> <li>▪ Outline clear and enforceable consequences for failing to meet goals.</li> <li>▪ Engage parents and community members</li> </ul>
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**If the Turnaround Model is selected:**

**Strategy:** To provide flexibility and support to the building Principal that will serve to substantially improve student achievement outcomes and increase high school graduation rates.

**Description:**

**Action Step:**

Title:  Description:    Begin Date:  End Date:  Timeline Notes:  Estimated Funding Needed:  Person(s) Responsible:	<b>Core Implementation Components</b> <ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul>	<b>Implementation Actions for Districts</b> <ul style="list-style-type: none"> <li>▪ Decision about scheduling</li> <li>▪ Decision about staffing</li> <li>▪ Decisions about budgeting</li> <li>▪ Align budgets with school improvement priorities</li> </ul>
		<b>Implementation Actions for Schools</b> <ul style="list-style-type: none"> <li>• Consider scheduling changes that could facilitate improved student learning.</li> <li>• Provide teachers with the opportunity to use time differently, such as allocating more time for monitoring student progress, data analysis, joint planning, or professional development</li> <li>• Align budgets with school improvement priorities.</li> </ul>



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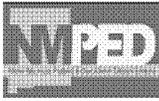
**Turnaround Model**

**Strategy:** To establish competencies that will be used to measure the effectiveness of staff who will work within the turnaround environment to meet the needs of students.

**Description:**

**Action Step:**

<p>Title:</p> <p>Description:</p> <p>Begin Date:</p> <p>End Date:</p> <p>Timeline Notes:</p> <p>Estimated Funding Needed:</p> <p>Person(s) Responsible:</p>	<p align="center"><b>Core Implementation Components</b></p> <ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul>	<p align="center"><b>Implementation Actions for Districts</b></p> <ul style="list-style-type: none"> <li>▪ Establish tools to measure effectiveness of staff</li> <li>▪ Align state standards of practice to district system evaluation</li> <li>▪ Establish systems that will support two way communication with staff regarding performance</li> <li>▪ Pinpoint school conditions that predict later failure</li> <li>▪ Engage in rapid retry efforts when failure occurs</li> <li>▪ Provide mentorship and Professional Development support</li> <li>▪ Use continuous improvement cycles</li> </ul>
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**Turnaround Model**

**Strategy:** To recruit, replace, and retain staff with the skills necessary to meet the needs of the students in the Turnaround school.

**Description:**

**Action Step:**

Title:	
Description:	
Begin Date:	End Date:
Timeline Notes:	
Estimated Funding Needed:	
Person(s) Responsible:	

- Core Implementation Components**
- Staff Performance Evaluation
  - Decision Support Data Systems
  - Facilitative Administrative Supports
  - Systems Interventions
  - Recruitment and Selection
  - Pre-service Training
  - Consultation and Coaching

- Implementation Actions for Districts**
- Actively and strategically market district strengths (attractive compensation, packages or working conditions)
  - Develop high and unyielding standards for the identification and selection of candidates
  - Aggressively reach out to all possible candidate pools when recruiting
  - Address hidden costs of teaching in hard to staff areas
  - Provide information-rich recruitment and hiring practices
  - Identify schools within the district that have challenges in teacher recruitment
  - Develop and sustain partnerships with universities and community colleges that deliver teacher preparation
  - Create programs to recruit former teachers
  - Establish grow you own programs to recruit future educators

- Implementation Actions for Schools**
- Create a school atmosphere that features trust, professionalism, and shared leadership.
  - Foster a positive, collaborative, and team-oriented school culture.
  - Consistently apply the school's or district's evaluation protocol.
  - Differentiate administrative support for teachers based on experience level and individual needs.
  - Provide adequate planning time for teachers.
  - Structured, collaborative time for teachers in co-teaching roles should be established.



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**Turnaround Model**

**Strategy:** To provide staff ongoing, high-quality, job-embedded professional development that will facilitate effective teaching and learning in achieving school reform strategies.

**Description:**

**Action Step:**

<b>Title:</b>	<b>Core Implementation Components</b>
<b>Description:</b>	
<b>Begin Date:</b>	<b>End Date:</b>
<b>Timeline Notes:</b>	
<b>Estimated Funding Needed:</b>	
<b>Person(s) Responsible:</b>	

- Staff Performance Evaluation
- Decision Support Data Systems
- Facilitative Administrative Supports
- Systems Interventions
- Recruitment and Selection
- Pre-service Training
- Consultation and Coaching

- |  |
|--|
| <b>Implementation Actions for Districts</b>  |
| <ul style="list-style-type: none"> <li>▪ Create systems of PD that advance the effectiveness of their staff for the benefit of both staff and students.</li> <li>▪ Plan for job embedded PD : conducted during the school day, peer observation, mentoring, teacher portfolios, action research projects, whole faculty or team study groups, curriculum planning and development, literature circles, critical friends groups, data analysis activities, school improvement planning, shared analysis of student work, lesson study or teacher self assessment and goal setting activities.</li> <li>▪ Consider: Developing a deeper understanding of the community served by a school, developing subject-specific pedagogical knowledge, developing leadership capabilities</li> <li>▪ Establish a system for evaluating the quality of specific professional development provider</li> <li>▪ Ensure that PD is based on strategies supported by rigorous research</li> <li>▪ Provide detailed and timely feedback to teachers</li> </ul> |

- |   |
|---|
| <b>Implementation Actions for Schools</b>   |
| <ul style="list-style-type: none"> <li>▪ Create a professional learning community that fosters a school culture of continuous learning.</li> <li>▪ Promote a culture in which professional collaboration is valued and emphasized.</li> <li>▪ Ensure that school leaders act as instructional leaders, providing regular, detailed feedback to teachers to help them continually grow and improve their professional practice.</li> </ul> |



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**Turnaround Model**

**Strategy:** To establish necessary elements in the new governance structure of the Turnaround School.

**Description:**

**Action Step:**

<p>Title:</p> <p>Description:</p> <p>Begin Date:</p> <p>End Date:</p> <p>Timeline Notes:</p> <p>Estimated Funding Needed:</p> <p>Person(s) Responsible:</p>	<p align="center"><b>Core Implementation Components</b></p> <ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul>	<p align="center"><b>Implementation Actions for Districts</b></p> <ul style="list-style-type: none"> <li>▪ Pursue changes to formal policy and informal standard operating procedures to empower schools to implement their turnaround strategies.</li> <li>▪ Identify schools to receive targeted turnaround interventions.</li> <li>▪ Devise procedures for determining which strategy to pursue at each identified school.</li> <li>▪ Provide schools “the appropriate operating flexibility, resources, and support required to reduce barriers and overly burdensome compliance requirements and to enable a school-wide focus on student needs and improved achievement”.</li> <li>▪ Establish partnerships with external providers where appropriate.</li> <li>▪ Establish mechanisms for keeping stakeholders informed about the turnaround process at each school.</li> <li>▪ Establish regular communication with the community and schools engaged in the turnaround process.</li> <li>▪ Hold schools accountable for short-term progress leading to long-term academic gains.</li> </ul>
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**Turnaround Model**

**Strategy:** To use data to identify and implement an instructional program that is research-based and vertically aligned from one grade to the next as well as aligned with State academic standards.

**Description:**

**Action Step:**

<p>Title:</p> <p>Description:</p>  <p>Begin Date:</p> <p>End Date:</p> <p>Timeline Notes:</p> <p>Estimated Funding Needed:</p> <p>Person(s) Responsible:</p>	<table border="1"> <tr> <th align="left">Core Implementation Components</th> </tr> <tr> <td> <ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul> </td> </tr> </table>	Core Implementation Components	<ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul>
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Implementation Actions for Districts
<ul style="list-style-type: none"> <li>▪ Provide support (technical, expertise, and resources) for an alignment process that considers resources, local context, and intended outcome</li> <li>▪ Support capacity-building for school staff and faculty members to help them understand the analysis and make strategic plans to implement action steps to address instructional adjustments and needed resources</li> <li>▪ Ensure that all students have access to rigorous, standards-based instructional programs that address higher order thinking skills and integrated performance.</li> <li>▪ Monitor the implementation of instructional programs incorporating standards-aligned, performance-based assignments and assessments.</li> </ul>

Implementation Actions for Schools
<ul style="list-style-type: none"> <li>▪ Conduct investigation to align school/teacher enacted curriculum, state standards, and local curricula, including articulation across grade levels and content areas.</li> <li>▪ Provide resources (e.g., time, expertise, planning support, professional development) to enable teachers to incorporate changes required to align instruction with standards.</li> <li>▪ Build capacity to monitor and maintain alignment between curriculum standards and classroom instruction, including use of formative data.</li> <li>▪ Engage in professional collaboration about identifying and/or developing performance-based assessments, scoring them consistently, and using the results to improve instruction and monitor student growth.</li> <li>▪ Identify and commit to the school-wide use of performance-based assignments and assessments throughout the curriculum and throughout the school year.</li> <li>▪ Identify the methods and criteria for monitoring the success of this strategy.</li> <li>▪ Clearly and visibly communicate within the school community the achievement of students on performance based assignments and assessments.</li> </ul>



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**Turnaround Model**

**Strategy:** Continuous use of student data to inform and differentiate instruction in order to meet the academic needs of individual students.

**Description:**

**Action Step:**

<p>Title:</p> <p>Description:</p> <p>Begin Date: _____ End Date: _____</p> <p>Timeline Notes:</p> <p>Estimated Funding Needed:</p> <p>Person(s) Responsible:</p>	<p><b>Core Implementation Components</b></p> <ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul>	<p><b>Implementation Actions for Districts</b></p> <ul style="list-style-type: none"> <li>▪ Develop a data system or adopt an available data system that enables analysis of student outcomes at multiple levels</li> <li>▪ Develop a district-wide plan for collecting, interpreting, and using data.</li> <li>▪ Dedicate time and develop structures for district schools and teachers to use data to alter instruction</li> <li>▪ Train teachers and principals in how to interpret and use data to change instruction</li> <li>▪ Use annual state testing performance data to evaluate the overall effectiveness of instructional services provided by the district.</li> <li>▪ Conduct deep analysis to determine areas in need of improvement</li> <li>▪ Provide professional development on differentiated instruction for classroom teachers.</li> <li>▪ Utilize coaching methods to support teachers as they learn to implement differentiating instruction in their classrooms</li> </ul>
<p><b>Implementation Actions for Schools</b></p> <ul style="list-style-type: none"> <li>▪ Identify which students are at risk for difficulties with certain subjects, such as mathematics or reading, and provide more intense instruction to students identified as at risk</li> <li>▪ Employ efficient, easy-to-use progress monitoring measures to track the progress of students receiving intervention services towards critical academic outcomes</li> <li>▪ Use formative assessments to evaluate learning and determine what minor adjustments can be made to instruction to enhance student understanding</li> <li>▪ Continually assess students to obtain valid data and use this student data to inform instructional decisions and determine appropriate grouping patterns</li> <li>▪ Use grouping strategies to meet the individual needs of students within the broader group context and design instructional tasks for each group to align with educational goals</li> <li>▪ Use differentiated instructional strategies to include special education students in the general education curriculum (and to respond to the unique needs of diverse gifted learners).</li> </ul>		



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**Turnaround Model**

**Strategy:** Increased learning time for students.

**Description:**

**Action Step:**

**Core Implementation Components**

- Staff Performance Evaluation
- Decision Support Data Systems
- Facilitative Administrative Supports
- Systems Interventions
- Recruitment and Selection
- Pre-service Training
- Consultation and Coaching

**Implementation Actions for Districts**

- Create buy-in for extended school days from parents, teachers, students, and the community.
- Allocate and increase funds to support extended learning time.
- Provide professional development to ensure that teachers use extra time effectively.
- Create local partnerships with businesses, organizations, etc., to support the extended time initiative.
- Determine how the district will monitor progress of the extended learning time initiative.

Title:

Description:

Begin Date:

End Date:

Timeline Notes:

Estimated Funding Needed:

Person(s) Responsible:

**Implementation Actions for Schools**

- Implement professional development to aid teachers in using extra school time effectively.
- Determine how to restructure the school day so that the students who need the most support are given more instructional opportunities.
- Create a plan for monitoring the progress of the extended learning time initiatives as well as for continuous improvement.



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**Turnaround Model**

**Strategy:** Appropriate social-emotional and community-oriented services and supports for students.

**Description:**

**Action Step:**

<p>Title:</p> <p>Description:</p>  <p>Begin Date:</p> <p>End Date:</p> <p>Timeline Notes:</p> <p>Estimated Funding Needed:</p> <p>Person(s) Responsible:</p>	<p><b>Core Implementation Components</b></p> <ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul>	
<p><b>Implementation Actions for Schools</b></p> <ul style="list-style-type: none"> <li>▪ Develop a cadre of leaders within the school who understand and support SEL and who will function as the school's SEL leadership team.</li> <li>▪ Provide time and resources for intensive professional development and coaching, including peer coaching, so that SEL is integrated at every grade and across the curriculum.</li> <li>▪ Communicate regularly with families and the school-community about SEL progress and successes.</li> </ul>	<p><b>Implementation Actions for District</b></p> <ul style="list-style-type: none"> <li>▪ Develop an implementation and phase-in plan for Student Emotional Learning (SEL) based on an assessment of district resources and needs.</li> <li>▪ Pick high-quality, evidence-based SEL programs that have effective implementation support systems.</li> <li>▪ Provide professional development that fosters a deep understanding of SEL at both the district and school level.</li> <li>▪ Provide coaching to support the quality of teachers' SEL practice.</li> <li>▪ Utilize assessment tools developed specifically to monitor and improve SEL processes and outcomes for ongoing improvement.</li> <li>▪ Integrate SEL strategies and practices with academic areas and student support.</li> <li>▪ Identify principals who will make a commitment to school-wide SEL implementation and integration.</li> </ul>	



**STATE OF NEW MEXICO**  
**PUBLIC EDUCATION DEPARTMENT**  
**Priority Schools Bureau**  
**School Improvement Grant 2010**

**If the Close/Consolidate Model is selected:**

**Strategy:** Communication plan to inform parents and the community

**Description:**

**Action Step:**

**Core Implementation Components**

- Staff Performance Evaluation
- Decision Support Data Systems
- Facilitative Administrative Supports
- Systems Interventions
- Recruitment and Selection
- Pre-service Training
- Consultation and Coaching

Title:

Description:

Begin Date:

End Date:

Timeline Notes:

Estimated Funding Needed:

Person(s) Responsible:

**Implementation Actions for District**

- Identify or develop options for students from to-be-closed schools
- Develop fair and transparent criteria for identifying school that may be closed
- Engage community and business leaders in the development
- Communication plan regarding rationale for closing the school
- Establish dissolution plan for completing the closure process



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**Close/Consolidate Model**

**Strategy:** To support students in the transition to their new school

**Description:**

**Action Step:**

**Core Implementation Components**

- Staff Performance Evaluation
- Decision Support Data Systems
- Facilitative Administrative Supports
- Systems Interventions
- Recruitment and Selection
- Pre-service Training
- Consultation and Coaching

**Implementation Actions for District**

- Establish transition plan for students, staff and administrators
- Establish communication plan with receiving school
- Establish communication plan with parents
- Provide opportunities for students and parents to visit new school
- Establish adult guides for new students

Title:

Description:

Begin Date:

End Date:

Timeline Notes:

Estimated Funding Needed:

Person(s) Responsible:



**STATE OF NEW MEXICO**  
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School Improvement Grant 2010

**Close/Consolidate Model**

**Strategy:** Making sure students from the closed school are accommodated at a “higher-achieving” school.

**Description:**

**Action Step:**

Title:	<b>Core Implementation Components</b>	
Description:	<ul style="list-style-type: none"><li>▪ Staff Performance Evaluation</li><li>▪ Decision Support Data Systems</li><li>▪ Facilitative Administrative Supports</li><li>▪ Systems Interventions</li><li>▪ Recruitment and Selection</li><li>▪ Pre-service Training</li><li>▪ Consultation and Coaching</li></ul>	
Begin Date:		
End Date:		
Timeline Notes:		
Estimated Funding Needed:		
Person(s) Responsible:		
		<b>Implementation Actions for District</b> <ul style="list-style-type: none"><li>▪ Identify higher achieving schools</li><li>▪ Communicate “proximal” higher achieving schools to students and parents</li><li>▪ Communicate higher achieving school curricular expectations.</li></ul>



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 Priority Schools Bureau  
 School Improvement Grant 2010

**School Improvement Grant**

Complete the following if the Transformation Model is selected:

**Strategy:** Measures the District will take in developing teacher and school leader effectiveness.

**Description:**

**Action Step:**

<p>Title:</p> <p>Description:</p> <p>Begin Date:</p> <p>End Date:</p> <p>Timeline Notes:</p> <p>Estimated Funding Needed:</p> <p>Person(s) Responsible:</p>	<p align="center"><b>Core Implementation Components</b></p> <ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul>	<p align="center"><b>Implementation Actions for District</b></p> <ul style="list-style-type: none"> <li>▪ Provide for an infrastructure for Continuous Improvement</li> <li>▪ Implement, assess and adjust instruction in short term cycles of improvement</li> <li>▪ Design planning and decision making plan</li> <li>▪ Establish structures for team planning</li> <li>▪ Provide adequate time for teams to meet, conduct business</li> <li>▪ Provide professional development for district and school personnel on effective teaming practices</li> <li>▪ Establish evaluation criteria that is directly tied to expected outcomes</li> <li>▪ Systematize the regular reporting of the work of the school and district</li> </ul>
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**STATE OF NEW MEXICO**  
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**Priority Schools Bureau**  
**School Improvement Grant 2010**

**Transformation Model**

**Strategy:** Instructional reform strategies

**Description:**

**Action Step:**

- | Core Implementation Components   |
|--|
| <ul style="list-style-type: none"> <li>▪ Staff Performance Evaluation</li> <li>▪ Decision Support Data Systems</li> <li>▪ Facilitative Administrative Supports</li> <li>▪ Systems Interventions</li> <li>▪ Recruitment and Selection</li> <li>▪ Pre-service Training</li> <li>▪ Consultation and Coaching</li> </ul> |

- | Implementation Actions for District  |
|--|
| <ul style="list-style-type: none"> <li>▪ Establish plan for monitoring fidelity of implementation of the curriculum</li> <li>▪ Establish data plan to identify possible reasons for programs not performing as expected</li> <li>▪ Provide for comprehensive training and support materials</li> <li>▪ Build capacity to monitor and maintain alignment between curriculum standards and classroom instruction, including use of formative data</li> <li>▪ Provide resources(time, expertise, planning support, professional development) to enable teachers to incorporate changes required to align instruction with standards</li> <li>▪ Utilized coaching methods to support teachers in differentiating instruction</li> <li>▪ Use student data to drive instruction by training teachers and principals in how to interpret and use data to change instruction</li> <li>▪ Allocate resources to support the method (materials, release time and stipends)</li> </ul> |

Title:		
Description:		
Begin Date:		End Date:
Timeline Notes:		
Estimated Funding Needed:		
Person(s) Responsible:		



**STATE OF NEW MEXICO**  
PUBLIC EDUCATION DEPARTMENT  
Priority Schools Bureau  
School Improvement Grant 2010

**Transformation Model**

**Strategy:** Extending learning time and creating community-oriented school.

**Description:**

**Action Step:**

**Core Implementation Components**

- Staff Performance Evaluation
- Decision Support Data Systems
- Facilitative Administrative Supports
- Systems Interventions
- Recruitment and Selection
- Pre-service Training
- Consultation and Coaching

**Implementation Actions for District**

- Establish a "buy-in" plan for extended learning time
- Allocate and increase funds to support extended learning time
- Provide professional development to ensure that teachers use extra time effectively
- Determine how the district will monitor progress of the extended learning time initiative
- Establish plan for effective before and after school programs, summer school, Saturday school, extended day programs

Title:

Description:

Begin Date:

End Date:

Timeline Notes:

Estimated Funding Needed:

Person(s) Responsible:



**STATE OF NEW MEXICO**  
PUBLIC EDUCATION DEPARTMENT  
Priority Schools Bureau  
School Improvement Grant 2010

**Transformation Model**

**Strategy:** Flexibility and support to the building Principal that will serve to substantially improve student achievement outcomes and increase high school graduation rates.

**Description:**

**Action Step:**

**Core Implementation Components**

- Staff Performance Evaluation
- Decision Support Data Systems
- Facilitative Administrative Supports
- Systems Interventions
- Recruitment and Selection
- Pre-service Training
- Consultation and Coaching

Title:

Description:

Begin Date:

End Date:

Timeline Notes:

Estimated Funding Needed:

Person(s) Responsible:



**STATE OF NEW MEXICO**  
PUBLIC EDUCATION DEPARTMENT  
Priority Schools Bureau  
**School Improvement Grant 2010**

**The District must include a budget that indicates the amount of school improvement funds the District will use to:**

- Implement the selected model in each eligible school
- Conduct District level activities designed to support implementation of the selected school intervention model for each eligible school
- Support school improvement activities, at the school or District level, for each eligible school.

See Worksheet C which includes the budget information for each action step. See Worksheet E for a Checklist to use for Hiring External Provider



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PUBLIC EDUCATION DEPARTMENT  
Priority Schools Bureau  
School Improvement Grant 2010

**Worksheet D: Lack of Capacity to Serve Eligible School**

**List the school that the LEA lacks the capacity to serve with the School Improvement Grant:**

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**Rationale: in order to demonstrate that the LEA lacks the capacity to serve this school, describe the factors and indicators that prohibit the successful implementation of one of the intervention models. The LEA must include the following:**

- (1) The eligible schools must have completed a CLASS School Self Assessment and its components therein to arrive at the factors prohibiting successful implementation.**
- (2) The LEA must demonstrate that it lacks the capacity to use school improvement funds to provide leadership and support for that school. Complete the form below that describes the Strengths, Weaknesses, Threats, and Issues that impact the lack of capacity.**

**Strengths**

Description:

**Weaknesses**

Description:

**Threats**

Description:

**Issues**

Description:



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**School Improvement Grant 2010**

**Worksheet E**  
**Checklist for Hiring External Providers**

- \_\_\_ Identify reasons for hiring external providers
- \_\_\_ Ensure transparency
- \_\_\_ Involve stakeholders
- \_\_\_ Identify goals and measurable expectations
- \_\_\_ Create conditions to find and attract high-quality partners
- \_\_\_ Develop rigorous selection process that focuses on experience, qualifications, ability to communicate
- \_\_\_ Negotiate contract that outlines roles, responsibilities, performance measures, and timelines for deliverables
- \_\_\_ Define consequences for failure (termination or contract modification)

**D. The District must agree to the following assurances in its application for a School Improvement Grant:**

- Use its School Improvement Grant to implement fully and effectively an intervention in each eligible school that the District commits to serve consistent with the final requirements as evident in the school Web EPSS;
- Establish annual goals for student achievement on the State's assessments in both reading/language arts and mathematics and measure progress on the leading indicators as evident in the school Web EPSS.
- If a District selects the Restart Model, include in its contract or agreement terms and provisions to hold the charter operator, charter management organization, or education management organization accountable for complying with the final requirements as evident in the school Web EPSS; and
- Report to NMPED school-level data achievement indicators as evident in the school Web EPSS



**STATE OF NEW MEXICO**  
PUBLIC EDUCATION DEPARTMENT  
Priority Schools Bureau  
School Improvement Grant 2010

**WAIVERS: LEA must indicate which of the applicable waivers it intends to implement.**

The LEA must check each waiver that the LEA will implement. If the LEA does not intend to implement the waiver with respect to each applicable school, the LEA must indicate for which schools it will implement the waiver.

- Extending the period of availability of school improvement funds.

Note: If an SEA has requested and received a waiver of the period of availability of school improvement funds, that waiver automatically applies to all LEAs in the State.

- “Starting over” in the school improvement timeline for Tier I, Tier II, and Tier III Title I participating schools implementing a turnaround or restart model.
- Implementing a schoolwide program in a Tier I, Tier II, and Tier III Title I participating school that does not meet the 40 percent poverty eligibility threshold.

Note: If an SEA has not requested and received a waiver of any of these requirements, an LEA may submit a request to the Secretary.

# Appendix E

# *NMPED Title I Committee of Practitioners*

*February 2, 2010*

*Conference Call*

## *Meeting Notes*

	AGENDA ITEM	PRESENTER	NOTES
I.	WELCOME & INTRODUCTIONS	<i>Sam Ornelas</i>	<i>Sam starts the meeting and introduces Dr. Sheila Hyde.</i>
II.	ARCC Power Point	<i>Sheila Hyde</i>	<p><i>Sheila: The Title I committee sends in the application and it starts the process</i></p> <p><i>Sheila: Goes over the ARCC power point</i></p> <ul style="list-style-type: none"> <li>• <i>SEA must submit an application</i></li> <li>• <i>The School Improvement Grant application is similar to Race to The Top.</i></li> <li>• <i>SEA must allocate 95% to LEA and 5% to administrative funds.</i></li> <li>• <i>The cap is \$50,000 minimum.</i></li> <li>• <i>The cap is \$2,000,000 maximum.</i></li> <li>• <i>There are 320 Title I schools that are in corrective action.</i></li> <li>• <i>Sheila put together a task force of 25 people in November 2009. The data of academic achievement of the last 5 years was reviewed.</i></li> </ul> <p><i>Sheila: If you look at Section E in RTTT, 35 schools can apply for the SIG and receive RTTT funds.</i></p> <p><i>Val Tulley: Asks if districts can apply for both?</i></p> <p><i>Sheila: No, if they apply for SIG then they cannot receive RTTT. If they do not qualify for SIG then they could apply for RTTT.</i></p> <ul style="list-style-type: none"> <li>• <i>Strongest Commitment: LEA must identify which Tier 1, Tier II, and Tier III schools it commits to serve.</i></li> <li>• <i>Schools receiving SIG funds can select between four different models.</i></li> </ul>

			<p><i>All 4 of these are dramatic reforms.</i></p> <ul style="list-style-type: none"> <li>• <i>The turnaround school will be treated as a brand new school so they will not have a designation.</i></li> <li>• <i><u>The Turnaround Model</u> will replace principal and rehire no more than 50% of the staff. If the principal has been there less than 2 years, they can stay.</i></li> <li>• <i><u>Restart Model</u> will close the school and restart it under the management of a charter school. A restart school must admit, within the grades it serves, any former student who wishes to attend. We do not have EMO in this state.</i></li> <li>• <i><u>Close /Consolidate Model</u> will close the school and enroll the students who attended the school in other, higher-performing schools in the LEA.</i></li> <li>• <i><u>Transformation model:</u> (the school implements all 4 of these below and they are not able to choose.)</i> <ol style="list-style-type: none"> <li>1. <i>Develop teacher and leader effectiveness</i></li> <li>2. <i>Comprehensive instructional programs using student achievement data:</i></li> <li>3. <i>Extend learning time and create community-oriented schools</i></li> <li>4. <i>Provide operating flexibility and intensive support</i></li> </ol> </li> <li>• <i>Someone asks what if 50% of the staff needs to be replaced?</i></li> <li>• <i>Sheila answers all of these models start in the fall 2010.</i></li> <li>• <i>The state identifies the criteria for the application. There is not a competition for this. It is not automatic that the schools get these funds if they can demonstrate that the LEA has the capacity to implement one of the 4 models.</i></li> <li>• <i>Get familiar with WEBEPSS for next year. All schools should have access on line.</i></li> <li>• <i>The district has to decide which of</i></li> </ul>
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			<p><i>these 4 models to use.</i></p> <ul style="list-style-type: none"> <li>• <i>The application will have everything that they will need.</i></li> <li>• <i>Focus on the reform.</i></li> <li>• <i>Each school and LEA are held accountable.</i></li> <li>• <i>SEA has a role</i></li> <li>• <i>LEA has a role</i></li> <li>• <i>In the case of Gallup, they have 7 schools that need reform. They might only do SIG for 5 of the schools and the other 2 can apply for RTTT.</i></li> <li>• <i>We will help them pick providers.</i></li> <li>• <i>Renatta asks when the LEA is determining these changes, are they working with the parents and the community?</i></li> <li>• <i>Sheila says that it is a necessity that the parents and community are involved.</i></li> <li>• <i>PSB staff will be looking closely at the schools and districts.</i></li> <li>• <i>We may have to keep schools open later; this will allow parents to get involved.</i></li> <li>• <i>Val asks what kind of support does LEA get from the state?</i></li> <li>• <i>Sheila: They will be assigned a support specialist this week. There will be 10 Wimbos to cover technical assistance issues. We are developing a website to help these districts find the right provider.</i></li> <li>• <i>We are talking regularly with Superintendents. We will use 5% set aside money for training and other support for our staff and district. We will also contract with outside staff to give the best to our districts.</i></li> <li>• <i>Waivers:</i></li> <li>• <i>Turnaround or restart schools could receive waivers to permit the school to “start over” under NCLB’s school improvement timeline and waive the choice/SES NCLB provisions.</i></li> <li>• <i>SEAs and LEAs will receive waivers to expend the funds over three years.</i></li> <li>• <i>LEAs may receive a waiver to serve</i></li> </ul>
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*Tier II schools.*

- *LEAs may receive waivers to enable Tier I schools that are operating targeted assistance programs to operate a schoolwide programs.*
- *The money needs to be used over 3 years. If the school does not improve in the 1<sup>st</sup> year, they will not receive funds for year 2 and 3.*
- *There is Planning and Preparing information.*
- *There is a timeline to follow as well.*
- *Webinars start February 8, 2010. The USDOE are making 1 change and they will be able to award the money as soon as possible so that districts can start making decisions.*
- *Green light districts can give us their applications by mid March and possibly awarded by April.*
- *Ladona asks if she had, multiple schools that qualified for this grant would Sheila be an advisory?*
- *Sheila: Yes, we will be available and PED wants them to succeed.*
- *RTTT made is clear that the state can exercise it's authority to take over a school.*
- *That's good!*
  
- *Lynn: In Santa Fe my concern about the 1<sup>st</sup> framework model, 50% of staff to be released. How will they get new staff?*
- *Sheila: We will have enough time because we hope to get this approved by mid April.*
- *Comments: I commend you for doing this. Please share the success stories.*
- *Sheila: We will make this website available to all of you.*
- *Sam: Even though your district does not have any schools on our list, it is good for NCLB folks to be familiar with this.*
- *We are required to post them on the website so, parents and the community will see what we are*

			<p><i>going to do.</i></p> <ul style="list-style-type: none"><li>• <i>Ladona: Excellent presentation on complex information.</i></li></ul>
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# Appendix F



STATE OF NEW MEXICO  
PUBLIC EDUCATION DEPARTMENT  
300 DON GASPAR  
SANTA FE, NEW MEXICO 87501-2786  
Telephone (505) 827-5800  
[www.ped.state.nm.us](http://www.ped.state.nm.us)

DR. VERONICA C. GARCÍA  
SECRETARY OF EDUCATION

BILL RICHARDSON  
Governor

February 12, 2010

**MEMORANDUM**

**TO:** Select District Superintendents

**FROM:** Dr. Sheila Hyde, Assistant Secretary  
Quality Assurance and Systems Integration

**RE:** **NOTICE OF INTENT TO REQUEST N-SIZE WAIVER UNDER FEDERAL  
TITLE I SCHOOL IMPROVEMENT GRANT**

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As required under the US Department of Education (USDE) grant application for Title I School Improvement Grants (SIG), the New Mexico Public Education Department (PED) is providing notice that we are requesting a waiver from USDE of the definition of “persistently lowest-achieving schools” contained in the final requirements for the School Improvement Grants (SIG) program and the use of that definition in those final requirements, as amended.

Specifically, the PED is requesting permission to exclude, from the pool of schools from which it identifies the persistently lowest-achieving schools, any school in which the total number of full academic year students in the “all students” group in the grades assessed is less than 25. This waiver will ensure the validity and reliability of New Mexico’s identification of schools as well as protect the privacy of individual students in very small schools.

Comments regarding this notice can be submitted to [sharyn.perea@state.nm.us](mailto:sharyn.perea@state.nm.us) by 3:00 pm on February 19, 2010. If you have questions regarding this waiver please contact me at 505-827-6517.

Thank you.

SH/so/sp

cc: Dr. Catherine Cross Maple, Deputy Secretary, Learning and Accountability  
Sam Ornelas, Director, Title I Bureau



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PUBLIC EDUCATION DEPARTMENT  
300 DON GASPAR  
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[www.ped.state.nm.us](http://www.ped.state.nm.us)**

DR. VERONICA C. GARCÍA  
SECRETARY OF EDUCATION

BILL RICHARDSON  
Governor

February 12, 2010

Dr. Thelma Meléndez de Santa Ana  
Assistant Secretary for Elementary and Secondary Education  
Office of Elementary and Secondary Education  
US Department of Education  
400 Maryland Ave., SW  
Washington, DC 20202

Dear Assistant Secretary Meléndez:

I am writing to request a waiver of the definition of “persistently lowest-achieving schools” contained in section I.A.3 of the final requirements for the School Improvement Grants (SIG) program (74 FR 65618 (Dec. 10, 2009)) and the use of that definition in section I.A.1(a) and (b) of those final requirements, as amended (75 FR 3375 (Dec. 21, 2010)). Specifically, I am requesting permission for New Mexico to exclude, from the pool of schools from which it identifies the persistently lowest-achieving schools for Tier I and Tier II, any school in which the total number of students in the “all students” group in the grades assessed [who were enrolled in the school for a full academic year as that term is defined in New Mexico’s Accountability Workbook] is less than 25. The minimum group size of 25 was established for Adequate Yearly Progress (AYP) subgroups in 2003, and was a compromise between the number needed for statistical integrity, and the number needed to hold all schools, especially smaller schools, accountable for student achievement. New Mexico’s minimum group size is smaller, and more rigorous, than AYP standards set by most other states. To reliably measure progress in schools with fewer than 25 students would not be statistically defensible. In sum, New Mexico needs this waiver in order to ensure that the identification of a school is both valid and reliable based on a minimum number of students and does not reveal personally identifiable information about individual students in the school.

I believe that this waiver will ensure the validity and reliability of New Mexico’s identification of schools as well as protect the privacy of individual students in very small schools. For New Mexico’s identified Tier I and Tier II schools, the SIG program will improve the quality of

instruction for students and improve the academic achievement of students. Specifically, implementing one of the four school intervention models in our Tier I and Tier II schools will help us turn around our State's persistently lowest-achieving schools in order to improve instruction and raise student achievement substantially in those schools. By identifying schools below the "minimum n" as Tier III schools, New Mexico will enable its LEAs to serve, as appropriate, these schools with SIG funds.

New Mexico assures that it determined whether it needs to identify five percent of schools or five schools in each tier prior to excluding small schools below its "minimum n." New Mexico is enclosing, and will post on its Web site, a list of the schools in each tier that it will exclude under this waiver and the number of students in each school on which that determination is based. New Mexico will include its "minimum n" in its definition of "persistently lowest-achieving schools." In addition, New Mexico will include, in its list of Tier III schools, any schools excluded from the pool of schools from which it identified the persistently lowest-achieving schools, so that LEAs may choose to serve those schools with SIG funds consistent with the final requirements.

New Mexico assures that it provided all LEAs in the State that are eligible to receive a SIG grant with notice and a reasonable opportunity to comment on this request and has attached a copy of that notice. To expedite its waiver request, New Mexico will submit subsequently copies of any comments it receives from LEAs. New Mexico also assures that it provided notice and information regarding this waiver request to the public in the manner in which the State customarily provides such notice and information to the public (by posting information on its Web site) and has attached a copy of, or link to, that notice.

Please feel free to contact me by phone or email at 505-827-6517 or [sheila.hyde@state.nm.us](mailto:sheila.hyde@state.nm.us) if you have any questions regarding this request. Thank you for your consideration.

Sincerely,

Dr. Sheila Hyde, Assistant Secretary  
Quality Assurance and Systems Integration Division



STATE OF NEW MEXICO  
PUBLIC EDUCATION DEPARTMENT  
300 DON GASPAR  
SANTA FE, NEW MEXICO 87501-2786  
Telephone (505) 827-5800  
[www.ped.state.nm.us](http://www.ped.state.nm.us)

DR. VERONICA C. GARCÍA  
SECRETARY OF EDUCATION

BILL RICHARDSON  
Governor

February 1, 2010

**MEMORANDUM**

**TO:** Select District Superintendents

**FROM:** Dr. Sheila Hyde, Assistant Secretary *Sheila Hyde*  
Quality Assurance and Systems Integration

**RE:** **NOTICE OF INTENT TO REQUEST WAIVERS UNDER FEDERAL TITLE I  
SCHOOL IMPROVEMENT GRANT**

---

As required under the US Department of Education (USDE) grant application for Title I School Improvement Grants (SIG), the New Mexico Public Education Department (PED) is providing notice that we are requesting waivers of the requirements listed below. These waivers would allow any local educational agency (LEA) in the State that receives a School Improvement Grant to use those funds in accordance with the final requirements for School Improvement Grants and the LEA's application for a grant.

The PED believes that the requested waiver(s) will increase the quality of instruction for students and improve the academic achievement of students in Tier I schools by enabling an LEA to use more effectively the school improvement funds to implement one of the four school intervention models.

The PED is requesting the following waivers from the USDE:

1. Waive section 421(b) of the General Education Provisions Act (20 U.S.C. § 1225(b)) to extend the period of availability of school improvement funds for the SEA and all of its LEAs to September 30, 2013.

2. Waive section 1116(b)(12) of the ESEA to permit LEAs to allow SIG participating schools that will implement a turnaround or restart model to “start over” in the school improvement timeline.
3. Waive the 40 percent poverty eligibility threshold in section 1114(a)(1) of the ESEA to permit LEAs to implement a schoolwide program in a SIG participating school that does not meet the poverty threshold.

The State assures that it will permit an LEA to implement the waiver(s) only if the LEA receives a School Improvement Grant and requests to implement the waiver(s) in its application. As such, the LEA may only implement the waiver(s) in schools, as applicable, included in its SIG application.

Comments regarding this notice can be submitted to [sharyn.perea@state.nm.us](mailto:sharyn.perea@state.nm.us) by 3:00 pm on February 5, 2010. If you have questions regarding these waivers please contact Sam Ornelas, PED Title I Director, at 505-222-4740.

Thank you.

so/sp

cc: Dr. Catherine Cross Maple, Deputy Secretary, Learning and Accountability  
Dr. Jim Holloway, Assistant Secretary, Rural Education Division  
Sam Ornelas, Director, Title I Bureau

# Appendix G

## SIG Panel Review Presentation

School \_\_\_\_\_ District \_\_\_\_\_ Date \_\_\_\_\_

Scoring Rubric:     **0 - 5 Points: Did not meet requirements**  
                           **6 -10 Points: Partially met requirements**  
                           **11-15 Points: Completely met requirements**

**Goal:** To implement the Transformation Model

**Description (Strategic Objective):** A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve.

Strategy 1	Description	Look Fors	Rating	Rationale (brief)
Teacher/Leadership effectiveness	Measures the District will take in developing teacher and school leader effectiveness.	<ul style="list-style-type: none"> <li>*Provide for an infrastructure for continuous improvement</li> <li>*Implement, assess and adjust instruction in short term cycles of improvement</li> <li>*Design planning and decision making plan</li> <li>*Establish structures for team Planning</li> <li>*Provide adequate time for teams to meet, conduct business</li> <li>*Provide professional development for district and school personnel on effective teaming practices</li> <li>*Establish evaluation criteria that is directly tied to expected outcomes</li> <li>*Systematize the regular reporting of the work of the school and district</li> <li>*Sustainability: District will invest early on in resources that will build capacity so that the investment reduces over the 3 years.</li> <li>*Sustainability: The intervention model chosen</li> </ul>	Maximum 15 points	

### SIG Panel Review Presentation

School \_\_\_\_\_ District \_\_\_\_\_ Date \_\_\_\_\_

Scoring Rubric:    0 - 5 Points: Did not meet requirements  
 6 -10 Points: Partially met requirements  
 11-15 Points: Completely met requirements

		will be sustainable as a result of the intentional strategies of building capacity *Sustainability: District will align other resources (Title I, II, III, Indian Education Funds) to the intervention model		
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**Goal:** To implement the Transformation Model

**Description (Strategic Objective):** A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve.

Strategy 2	Description	Look Fors	Rating	Rationale (brief)
Instructional reform strategies	Instructional reform strategies	*Establish plan for monitoring fidelity of implementation of the curriculum *Establish data plan to identify possible reasons for programs not performing as expected *Provide resources (time, expertise, planning, support, professional development) to enable teachers to incorporate changes required to align instruction with standards *Build capacity to monitor and maintain alignment between curriculum standards and classroom instruction, including use of formative data	Maximum 15 points	

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School \_\_\_\_\_ District \_\_\_\_\_ Date \_\_\_\_\_

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 6 -10 Points: Partially met requirements  
 11-15 Points: Completely met requirements

		<ul style="list-style-type: none"> <li>*Utilize coaching methods to support teachers in differentiating instruction</li> <li>*Use student data to drive instruction by training teachers and principals in how to interpret and use data to change instruction</li> <li>*Allocate resources to support the method (materials, release time and stipends)</li> <li>*Sustainability: District will invest early on in resources that will build capacity so that the investment reduces over the 3 years.</li> <li>*Sustainability: The intervention model chosen will be sustainable as a result of the intentional strategies of building capacity</li> <li>*Sustainability: District will align other resources (Title I, II, III, Indian Education Funds) to the intervention model</li> </ul>		
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                           **11-15 Points: Completely met requirements**

**Goal:** To implement the Transformation Model

**Description (Strategic Objective):** A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve.

Strategy 3	Description	Look Fors	Rating	Rationale (brief)
Extending learning time	Extending learning time and creating community-oriented school.	*Establish a "buy-in" plan for extended learning time *Allocate and increase funds to support extended learning time *Provide professional development to ensure that teachers use extra time effectively *Determine how the district will monitor progress of the extended learning time initiative *Establish plan for effective before and after school programs, summer school, Saturday school, extended day programs *Sustainability: District will invest early on in resources that will build capacity so that the investment reduces over the 3 years. *Sustainability: The intervention model chosen will be sustainable as a result of the intentional strategies of building capacity	Maximum 15 points	

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School \_\_\_\_\_ District \_\_\_\_\_ Date \_\_\_\_\_

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		*Sustainability: District will align other resources (Title I, II, III, Indian Education Funds) to the intervention model		
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**Goal:** To implement the Transformation Model

**Description (Strategic Objective):** A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve.

Strategy 4	Description	Look Fors	Rating	Rationale (brief)
Support to building Principal	Flexibility and support to the building Principal that will serve to substantially improve student achievement outcomes and increase high school graduation rates	*Decisions about scheduling *Decisions about staffing *Decisions about budgeting *Align budgets with school improvement priorities *Sustainability: District will invest early on in resources that will build capacity so that the investment reduces over the 3 years. *Sustainability: The intervention model chosen will be sustainable as a result of the intentional strategies of building capacity *Sustainability: District will align other resources (Title I, II, III, Indian Education Funds) to the intervention model	Maximum 15 points	

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**Goal:** To implement the Transformation Model

**Description (Strategic Objective):** A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve.

Strategy 5	Description	Look Fors	Rating	Rationale (brief)
Recruitment and retention of staff	To recruit, replace, and retain staff with the skills necessary to meet the needs of the students in the turnaround school.	<ul style="list-style-type: none"> <li>*Actively and strategically market district strengths (attractive compensation, packages or working conditions)</li> <li>*Develop high and unyielding standards for the identification and selection of candidates</li> <li>*Aggressively reach out to all Possible candidate pools when recruiting</li> <li>*Address hidden costs of teaching in hard to staff areas</li> <li>*Provide information-rich recruitment and hiring practices</li> <li>*Identify schools within the district that have challenges in teacher recruitment</li> <li>*Develop and sustain partnerships with universities and community colleges that deliver teacher preparation</li> <li>*Create programs to recruit former teachers</li> <li>*Establish grow your own programs to recruit future educators</li> </ul>	Maximum 15 points	

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		<ul style="list-style-type: none"><li>*Sustainability: District will invest early on in resources that will build capacity so that the investment reduces over the 3 years.</li><li>*Sustainability: The intervention model chosen will be sustainable as a result of the intentional strategies of building capacity</li><li>*Sustainability: District will align other resources (Title I, II, III, Indian Education Funds) to the intervention model</li></ul>		
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                           **11-15 Points: Completely met requirements**

**Goal:** To implement the Transformation Model

**Description (Strategic Objective):** A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve.

Strategy 6	Description	Look Fors	Rating	Rationale (brief)
Job-embedded professional development	To provide staff ongoing, high-quality, job-embedded professional development that will facilitate effective teaching and learning in achieving school reform strategies	<ul style="list-style-type: none"> <li>*Create systems of PD that advance the effectiveness of their staff for the benefit of both staff and students</li> <li>*Plan for job embedded PD; conducted during the school day, peer observation, mentoring, teacher portfolios, action research projects, whole faculty or team study groups, curriculum planning and development, literature circles, critical friends groups, data analysis activities, school improvement planning, shared analysis of student work, lesson study or teacher self assessment and goal setting activities</li> <li>*Consider: Developing a deeper understanding of the community served by a school, developing subject-specific pedagogical knowledge and developing leadership capabilities</li> <li>*Establish a system for evaluating the quality of specific professional development providers</li> <li>*Ensure that PD is based on strategies supported by rigorous research</li> <li>*Provide detailed and timely feedback to teachers</li> </ul>	Maximum 15 points	

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                              6 -10 Points: Partially met requirements  
                              11-15 Points: Completely met requirements

**Goal:** To implement the Transformation Model

**Description (Strategic Objective):** A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve.

Strategy 7	Description	Look Fors	Rating	Rationale (brief)
New governance structure/Turn around	To establish necessary elements in the new governance structure of the Turnaround School.	<ul style="list-style-type: none"> <li>*Pursue changes to formal policy and informal standard operating procedures to empower schools to implement their turnaround strategies</li> <li>*Identify schools to receive targeted turnaround interventions</li> <li>*Devise procedures for determining which strategy to pursue at each identified school</li> <li>*Provide schools "the appropriate operating flexibility, resources, and support required to reduce barriers and overly burdensome compliance requirements and to enable a school-wide focus on student needs and improved achievement"</li> <li>*Establish partnerships with external providers where appropriate</li> <li>*Establish mechanisms for keeping stakeholders informed about the turnaround process at each school</li> <li>*Establish regular communication with the community and schools engaged in the turnaround process</li> <li>*Hold schools accountable for short-term progress leading to long-term academic gains</li> </ul>	Maximum 15 points	

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		<p>*Sustainability: District will invest early on in resources that will build capacity so that the investment reduces over the 3 years.</p> <p>*Sustainability: The intervention model chosen will be sustainable as a result of the intentional strategies of building capacity</p> <p>*Sustainability: District will align other resources (Title I, II, III, Indian Education Funds) to the intervention model</p>		
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                              6 -10 Points: Partially met requirements  
                              11-15 Points: Completely met requirements

**Goal:** To implement the Transformation Model

**Description (Strategic Objective):** A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve.

Strategy 8	Description	Look Fors	Rating	Rationale (brief)
Aligned curriculum	To use data to identify and implement an instructional program that is research-based and vertically aligned from one grade to the next as well as aligned with State academic standards.	<ul style="list-style-type: none"> <li>*Provide support (technical, expertise, and resources) for an alignment process that considers resources, local context, and intended outcome</li> <li>*Support capacity-building for school staff and faculty members to help them understand the analysis and make strategic plans to implement action steps</li> <li>*Ensure that all students have access to rigorous, standards-based instructional programs that address higher order thinking skills and integrated performance</li> <li>*Monitor the implementation of instructional programs incorporating standards-aligned, performance-based assignments and assessments</li> <li>*Sustainability: District will invest early on in resources that will build capacity so that the investment reduces over the 3 years.</li> <li>*Sustainability: The intervention model chosen will be sustainable as a</li> </ul>	Maximum 15 points	

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School \_\_\_\_\_ District \_\_\_\_\_ Date \_\_\_\_\_

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6 -10 Points: Partially met requirements  
11-15 Points: Completely met requirements

		result of the intentional strategies of building capacity *Sustainability: District will align other resources (Title I, II, III, Indian Education Funds) to the intervention model		
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                           **11-15 Points: Completely met requirements**

**Goal:** To implement the Transformation Model

**Description (Strategic Objective):** A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve.

Strategy 9	Description	Look Fors	Rating	Rationale (brief)
Data collection and analysis	Continuous use of student data to inform and differentiate instruction in order to meet the academic needs of individual students.	<ul style="list-style-type: none"> <li>*Develop a data system or adopt an available data system that enables analysis of student outcomes at multiple levels</li> <li>*Develop a district-wide plan for collecting, interpreting, and using data</li> <li>*Dedicate time and develop structures for district schools and teachers to use data to alter instruction</li> <li>*Train teachers and principals in how to interpret and use data to change instruction</li> <li>*Use annual state testing performance data to evaluate the overall effectiveness of instructional services provided by the district</li> <li>*Conduct deep analysis to determine areas in need of improvement</li> <li>*Provide professional development on differentiated instruction for classroom teachers</li> <li>*Utilize coaching methods to support teachers as they learn to implement differentiating instruction in their classrooms</li> <li>*Sustainability: District will invest early on in</li> </ul>	Maximum 15 points	

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		resources that will build capacity so that the investment reduces over the 3 years. *Sustainability: The intervention model chosen will be sustainable as a result of the intentional strategies of building capacity *Sustainability: District will align other resources (Title I, II, III, Indian Education Funds) to the intervention model		
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                           **11-15 Points: Completely met requirements**

**Goal:** To implement the Transformation Model

**Description (Strategic Objective):** A rigorous intervention model that the LEA has agreed to implement fully and effectively in each school that the LEA commits to serve.

Strategy 10	Description	Look Fors	Rating	Rationale (brief)
Non academic support for students	Appropriate social-emotional and community – oriented services and supports for students	<ul style="list-style-type: none"> <li>*Develop an implementation and phase-in plan for Socio-emotional Learning (SEL) based on an assessment of district resources and needs</li> <li>*Pick high-quality, evidence-based SEL programs that have effective implementation support systems</li> <li>*Provide professional development that fosters a deep understanding of SEL at both the district and school level</li> <li>*Provide coaching to support the quality of teachers’ SEL practice</li> <li>*Utilize assessment tools developed specifically to monitor and improve SEL processes and outcomes for ongoing improvement</li> <li>*Integrate SEL strategies and practices with academic areas and student support</li> <li>*Identify principals who will make a commitment to school-wide SEL implementation and integration</li> <li>*Sustainability: District will invest early on in resources that will build capacity so that the</li> </ul>	Maximum 15 points	

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Scoring Rubric:    0 - 5 Points: Did not meet requirements  
6 -10 Points: Partially met requirements  
11-15 Points: Completely met requirements

		investment reduces over the 3 years. *Sustainability: The intervention model chosen will be sustainable as a result of the intentional strategies of building capacity *Sustainability: District will align other resources (Title I, II, III, Indian Education Funds) to the intervention model		
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## **Appendix E-2-6 Elev8 Description**

Elev8 New Mexico's full-service community school approach combines the best educational and youth development practices and partnerships to ensure that young people are prepared to learn and transition successfully through their school years and *beyond high school graduation*. Elev8 seeks to improve both student outcomes and school climate by engaging students, families, and the broader community in the educational process. Working closely with community-based organizations to deliver needed services to students and their families, the Elev8 NM model is comprised of:

- **School-based Health Centers (SBHCs)** provide students with easily accessible, user-friendly, age-appropriate preventive, primary, behavioral and oral health care. SBHC services, like behavioral or nutritional counseling, are integrated with extended learning and family services.
- **Extended learning** before and after school, and during the summer offers a diverse choice of relevant, structured learning activities that are engaging, challenging, and connected to the classroom. Extended learning embraces family and culture and encourages creative thinking.
- **Family Engagement and Support** on school campuses is designed to promote economic stability, good health and continuing education. Family engagement encourages parents to become full partners with the school and increase involvement with their child's education. Collaboration with the school's parent organization and community members provides opportunities to support school goals and advocate for issues important to families. Parental and community involvement is driven by service volunteers working out of the Family Resource Centers, and who are trained and supported by community organizers.
- **The Family Resource Center** provides a place within the school where parents, grandparents, other family members, and the students themselves can connect to Elev8 NM services and other school opportunities.

Elev8 NM's full-service community schools approach focuses on increasing learning time, engaging families, strengthening community and school connection, and coordinating resources.

**Appendix E-2-6**  
**Turnaround Specialist Job Description**

**Job Description**

Job Title: EDUCATION ADMINISTRATOR-A (PED) Priority Schools Bureau

Job ID: [REDACTED]

Location: Albuquerque

Full/Part Time: Full-Time

Regular/Temporary: Regular - PERM for

.....

## **Salary**

The pay band for this position is 75 and the salary range for this position is:

Minimum: \$18.35/hourly (\$38,168/annually)

Midpoint: \$25.50/hourly (\$53,040/annually)

Maximum: \$32.63/hourly (\$67,870/annually)

\*Offered salary is determined based on education and experience qualifications.

## **Agency Mission & Description**

The Mission of the New Mexico Public Education Department is to provide leadership, technical assistance, and quality assurance to improve performance of all students and close the achievement gap.

## **Purpose of Position**

To provide technical support and assistance as needed to district/school personnel within state statutes and federal mandates of Non Child Left Behind legislation in the school improvement processes with an emphasis in strategic planning, data collection, analysis and report-out processes, curriculum, instruction, assessment and interventions through regional satellite offices.

## **Duties Include**

Duties of this position include but are not limited to:

Maintain a satellite in Albuquerque for the Central Region. Assist school districts and school personnel with implementing responsibilities for meeting the needs of non-proficient students; collaborate with others, and lead people to a positive solution to a problem; maintain objectivity, function in a fast ever-changing environment; coordinate and attend a large number of district/school visits in a large geographic region.

## **Educational requirements**

A Bachelors degree in Education.

## **Experience**

Eight (8) years in teaching and administration of which five (5) years were school administration (program director, assistant principal, principal, associate/assistant superintendent, superintendent, etc.).

## **Statutory Citation**

All applicants for this position must have a current teaching license issued from the NM Public Education Department (NMPED), or a current teaching license from any state in accordance with NMAC 6.60.1 through 6.60.10; as applicable, or the ability to obtain a valid NM teaching license within ninety (90) days from the time of hire. You must include your license or certificate number in the "License" section of the application form.

## **Supplemental Skills/Abilities**

A Masters degree is preferred, however is not required to qualify for this position.

Knowledge/skills: Effective school reform efforts, strong leadership skills, strength in an instructional area (i.e. reading/writing, math, or science, etc.); and knowledge/training in educational coaching (e.g. cognitive coaching) with other school personnel to improve instructional practices. Knowledge of public school code, NCLB (No Child Left Behind), standards for excellence, EPSS (Educational Plan for Student Success), and continuous improvement practices. Effective communication skills (required to facilitate/conduct trainings and meetings), and computer software programs, including MS Office are also desirable.

## **Bargaining Unit Position**

This position is covered by a collective bargaining agreement and all terms/conditions of that agreement apply and must be adhered to.

## **Working Environment**

Office setting; able to lift twenty-five (25) pounds, proficient with computer software for normal office production, including MicroSoft Word, PowerPoint, and Excel; M-F 8:00 am to 5:00 pm except travel time; field visits required; in-state travel to school districts, schools and meetings may include

overnight(s) and weekends. Possible out of state travel to meetings or conferences. Incumbent may be required to provide his/her own transportation for in-state meetings, with reimbursement.

**To Apply for this job:**

State agency must provide reasonable accommodation to applicants with disabilities where appropriate. Applicants requiring reasonable accommodation for any part of the application and hiring process should contact the hiring agency directly. Determinations on requests for reasonable accommodation will be made on a case-by-case basis.

The NM Public Education Department values diversity and does not discriminate on the basis of race, color, sex, national origin, disability, age, or sexual orientation in its programs and activities. The following have been designated to handle Title IX inquiries regarding nondiscrimination policies: Mr. Stephen Fresquez (NM PED issues) and Dr. Sheila Hyde (NM PED program issues). They may be reached at: NM PED, 300 Don Gaspar Avenue, Santa Fe, NM 87501; (505) 827-5800.

1. Click the [Apply Now] button.
2. Please apply by: September 6, 2008
3. Cutting and pasting a resume works best. You may also apply by completing the Work Experience section.
4. There are a series of questions that are different for every job. In order to receive full consideration for all your qualifications, be sure to answer all questions (do not skip any).
5. If a veteran or a disabled veteran, be sure to send your DD214 to: NM State Personnel Office, Applicant/Intake Section, 2600 Cerrillos Road, P. O. Box 26127, Santa Fe, NM 87505. If you receive confirmation of your veteran or disabled veteran status, please reapply for the position and indicate that you received confirmation. You will only need to submit your documents one time.
6. Remember there is no hard copy application. If you submit a resume directly to an agency and don't apply on-line, your application will not include the questionnaire answers for inclusion on the ranked list.

Agency contact for this position is: Dr. Sheila Hyde, Assistant Secretary for the Quality Assurance and Systems Integration Division at (505) 827-6625.

If you do not receive an e-mail confirmation that you have applied successfully, please call the contact for this posting or the SPO Recruitment Bureau at (505) 476-7777, before the closing of the position being applied for.

# NEW MEXICO CURRICULUM AUDIT DRAFT OUTLINE

## I. Introduction

- Relation to CLASS
- Why are districts audited? CA districts -to improve student achievement.
- Who will be audited?
- Who will audit?

## II. Definition & Purpose

- A. *Curriculum* is defined in a variety of ways, e.g.
- Common course of required study intended for all students; the body of knowledge that all students are expected to learn; or
  - The knowledge and skills taught to students to facilitate their mastery of the academic content standards.<sup>1</sup>

Curriculum is not just the textbook that is being used to teach a particular subject in a classroom, school or district. It is the compilation of documents that teachers use to deliver the standards that students are expected to master.

- B. "A *curriculum audit* will provide a comprehensive review of the written, taught and assessed curriculum in school(s) and provide an unbiased evaluation for the district. The curriculum audit is based upon generally-accepted concepts from the "effective schools research."

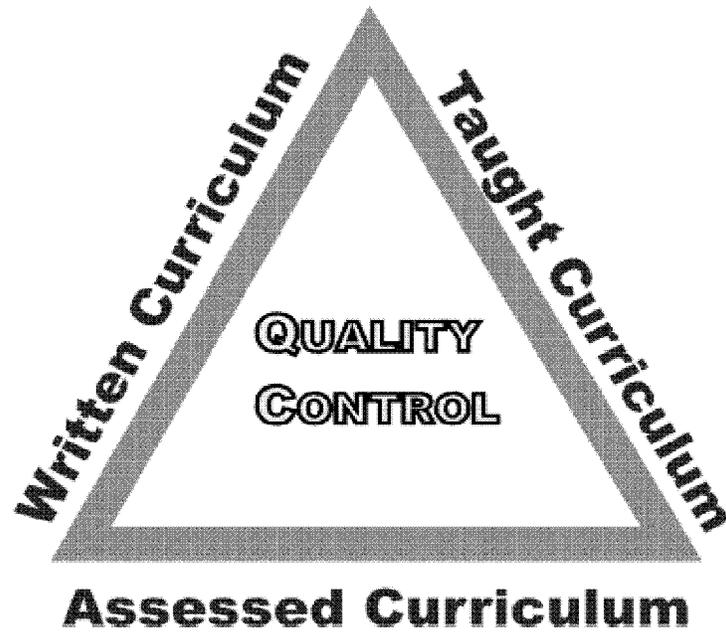
The curriculum audit's scope is centered on curriculum and instruction. The audit is an intensive, focused, look at how well a school system has set valid direction for pupil accomplishment and well being, concentrates its resources to accomplish those directions, and improves its performance over time.

"The intended curriculum is content specified by the state, district, or school. The implemented curriculum is content actually delivered by the teacher, and the attained curriculum is content actually learned by students. The discrepancy between the intended curriculum and the implemented curriculum (OTL) is a prominent factor in student achievement." (Marzano, 2003)

Three dimensions of curriculum are examined during the audit: the written curriculum, the curriculum that is actually taught in classrooms, and the curriculum that is assessed.

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<sup>1</sup> *District Audit Tool: A Method for Determining Level of Need for Support to Improvement.* Council of Chief State School Officers (CCSSO). December, 2005.



- C. The *purpose* of the audit is to determine the extent to which officials and professional staff have developed and implemented a sound, valid, and operational system of curriculum management. Such a system would enable the school system to make maximum use of its human and financial resources.

### III. Curriculum Audit Process

- A. A curriculum audit is an independent examination of multiple data sources gathered from documents, interviews/focus groups, and site visitations. These are compiled and examined to determine the extent to which a school district is meeting its goals and objectives. A report is issued as the final phase of the auditing process.
- B. Elements of the District Curriculum Audit include:
1. Survey: To be conducted prior to visit. Participants will be Central Office Staff, Principals, and teachers.
  2. Document review: To be done on day 1 of site visit
    - Curriculum guides (W)
    - District short cycle assessments – blueprints, reports of results (A)
    - Pacing guides (W)
    - Curriculum policies, including use of technology (W)
    - Approved budgets
    - District EPSS
    - Priority Schools EPSS rating checklist
    - District self assessment (see rubric)

- Professional development calendar
  - Handbooks or other documents regarding curriculum requirements (W)
  - Evidence of distribution of curriculum and pacing guides (W)
  - Process of how principals monitor lesson plans (A)
  - Approved budgets
  - Teacher evaluation system, tools, and reports (to include classroom observations tools and data).
3. Focus groups: To be done on day 2 of the site visit.  
Participants will be Central Office Staff, Principals (T)
  4. Exit conference and district evaluation of process: To be completed on day 3 of site visit.
  5. Final report: data sources; findings; recommendations.

#### IV. Curriculum Audit Standards: Fenwick English

- A. A School System Is Able to Demonstrate Its Control of Resources, Programs, and Personnel. (CLASS indicator 2.1)
- B. A School System Has Established Clear and Valid Objectives for Students (CLASS indicator 2.1 A and B)
- C. A School System Demonstrates Internal Connectivity and Rational Equity in Its Program Development and Implementation. (CLASS 2.1 E)
- D. A School System Uses the Results from System-Designed and/or -Adopted Assessments to Adjust, Improve, or Terminate Ineffective Practices or Programs. (CLASS 2.2 E)
- D. A School System Has Improved Productivity.

CLASS Indicators ( linked to Fenwick English )

- 2.1 The district leadership team ensures that the district curriculum is research-based and consistently implemented within each grade level and content area across the district.**
  - A. The district has a curriculum aligned to the state standards in math, reading and social studies at all grade levels.
  - B. The district standards-based curriculum is clearly articulated (vertical alignment) from elementary to middle to high school to ensure a smooth transition between school levels.

- C. The district has a system in place to ensure that the essential district standards-based scope, sequence, and depth of content for all students is distributed to teachers, parents and students, and implemented.
- D. The district has developed and distributed instructional calendars and/or pacing guides to guide delivery of the curriculum.
- E. The district has a system in place to ensure that teachers teach to the district standards-based curriculum at the appropriate level of academic rigor.
- F. The district has a system in place to ensure that all schools allocate time for teacher collaboration in aligning instruction to the district standards-based curriculum.
- G. The district has established a procedure for a representative sample of teachers and administrators to collaborate in the process of choosing instructional materials that address the unique learning needs of diverse students (e.g. ELL, IEP, and High Poverty Students).

**2.2 The district leadership team requires implementation and analysis of common short -cycle assessments that align with the curriculum.**

- A. In addition to short-cycle assessments the district administers district-wide common curriculum-based (formative) assessments aligned to state standards.
- B. The district has a system for collecting, interpreting, and distributing achievement data to schools in a timely manner.
- C. The district has a system in place to provide professional development to teachers and administrators in developing and using valid and reliable curriculum-based (formative) assessments aligned to the district standards-based curriculum.
- D. The district ensures that teachers have time to develop common formative assessments and implement an inquiry process to analyze student assessment results from multiple sources.
- E. The district has a mechanism to ensure that student achievement data are used on a regular basis to evaluate the impact of instructional programs and/or instructional materials.
- F. The district ensures that additional resources are made available during the school day to all students who do not demonstrate mastery of required standards.

**V. Curriculum Audit Tools**

- A. Interview, focus group and survey protocols.
- B. Sample Schedule.
- C. Sample letters, report format, etc.

E. Rubric with evidence

F. Document review templates

**VI. Research and References**

**New Mexico Public Education Department  
Program Support and Student Transportation Division  
Instructional Material Bureau**

**New Mexico Instructional Material Adoption Process**

**The goal of the Instructional Material Bureau is to provide schools access to superior instructional materials which are aligned to the New Mexico Content Standards and meets the needs of diverse student populations.**

**Purpose**

In accordance with Instructional Material Law 22-15-8 NMSA 1978, the Instructional Material Summer Review Institute is to review, for approval by the Secretary of Education, core/basal instructional materials addressed as the State Adopted Multiple List. Materials under review must be, but not are limited to:

- Align to State Standards and/or other criteria deemed appropriate
- Reflect research-based effectiveness studies
- Guarantee “best price” for instructional materials over a six (6) year cycle

**INTRODUCTION**

Accountability for student learning is the key focus of New Mexico’s system of school improvement. The Public Education Department’s commitment to continuous improvement is evident in the steps taken to refine the Instructional Material Adoption process to reflect current curriculum and technology trends, No Child Left Behind requirements, High School Redesign, the Public Education Department Goals & Strategic Plan and current school data.

The alignment of the PED organizational systems has reinforced our ability to meet the educational challenges of all students. The NM Instructional Material Adoption Process was developed in recognition of our shared contributions and responsibilities to all of New Mexico’s children.

The Instructional Material Bureau's improvement initiatives sited in **New Mexico Instructional Material Adoption Framework** are based in research and driven by student performance data. The practices in this document were developed to increase student achievement and represent the most current research on rural education, long distance learning and educational technology. The provisions ensure that the accountability systems of the Public Education Department, school districts and public schools are strategically aligned to address improved student achievement across the state. It is the expectation of the Public Education Department that schools, districts, education publishers and vendors comply with all requirements and opportunities provided in within the framework.

### **Purpose of the State Adopted Multiple List**

The Multiple List provides an array of core/basal and supplementary instructional materials for review and purchase by educational entities to enhance the delivery of instruction that will support student proficiency in meeting state standards.

Considerations are, but not limited to:

- Information and/or activities that are relevant to the student population
- Format design/structure that support teacher presentation style
- Research-based effectiveness which align to local standards
- Provide adequate professional development
- Cost effectiveness
- Address community considerations and expectations (diversity)

### **Funding**

The New Mexico Public Education Department (PED) is authorized under Sections 22-15-1 through 22-15-31, NMSA, 1978 Compilation, to adopt a multiple list of instructional materials and distribute funds directly to local school districts, charter districts, charter schools, state supported schools, and adult basic education centers. Instructional material funding for private schools is paid directly to the New Mexico Instructional Material Depositories and in-state publishers by the PED.

### **Eligible Entities**

Any student attending a public school, a charter school district, a charter school, a state supported school, or a private school accredited by the Public Education Department in any grade from first

through the twelfth grade of instruction is entitled to the free use of instructional material. Currently there are 846 public schools, 107 private schools, 71 charter schools, 9 state supported schools, and 38 Adult Basic Education programs which receive instructional material allocations.

### **Review Process**

As the Public Education Department continues to align program and resources to support academic growth in our schools, and in conjunction with Secretary Garcia's directive for PED agencies to align P-20 program/resources, the instructional material review process requires adopted materials to meet a minimum of 90% alignment with New Mexico Curriculum Standards and criteria.

The adoption and review process includes the participation of educators, school administrators, community members, publishers, and vendors at the annual Instructional Material Summer Review Institute.

### **I. Definitions Significant to the Request for Application**

#### **A. Definitions**

**Adoption** -approval by the Secretary of Education of a multiple list of core/basal instructional materials and a list of supplemental instructional materials for use in the schools.

**Core/basal**- refers to a set of subjects (reading, mathematics, science, social studies, language acquisition, comprehensive health, early childhood education, special education, physical education, vocational education, the arts, performing arts, and language arts) and materials or courses that make up the primary instructional component of a curriculum which covers all required New Mexico Curriculum Standards and Benchmarks for the content area. The primary tool of instructional material for adoption must be:

1. free of factual errors;
2. specifically align with the New Mexico Content Standards (Form G) in the following areas: K-8 Language Arts/Reading; K-8 Core Reading Intervention Programs; K-8 Modern, Classical, and Native Languages;
3. supported by research-based instructional practices with efficacy studies; and

4. related professional development activities.

**Digital Learning Content-** refers to technology application incorporated within the content of the core/basal instructional material. The purpose is for students to gain technology-based knowledge and skills and to apply them to all curriculum areas at all grade levels.

**Educational digital media-** refers to a digital system of instructional material, computer software, interactive videodisc, magnetic media, CD-ROM, DVD, computer courseware, online services, electronic medium, or other means of conveying information to the student or otherwise containing intellectual content that contributes to the learning process (not to include online direct instructional programs).

**Instructional material-** means school textbooks, educational digital media, electronic books, and other technology that are used as the basis for instruction, including combinations of textbooks, learning kits, supplementary material, and other educational technology (not to include online direct instructional programs).

**Multiple List-** an adopted list of core/basal instructional materials and an adopted list of supplemental instructional materials for use in the schools approved annually, by August 1, by the Secretary of Education.

**New Mexico Instructional Material Depository-** by approved application, a state designated distribution point serving as an agent representing multiple publishers and other educational entities for the purpose of managing district/school instructional material orders. The depository is responsible for accounting, acquisition, storage, distribution and disposition of adopted textbooks and supplementary instructional materials.

**New Mexico Regional Review Centers-**is a state designated location where samples of instructional materials may be received and made available to evaluators, teachers and educational practitioners. The Review Center is responsible for storage, disposition and inventory of current adopted textbooks and supplementary instructional materials.

**Online Courses/Programs-** Computer based instruction in which courses use the World Wide Web as the primary delivery method of information. A text book is required and all other materials, as well as, instructional support provided by an on-site instructor.

**Online Direct Instruction Courses/Programs-** refers to computer based instruction in which courses use the world wide web as the primary delivery method of information. These are courses that are taught to students who are separated by time and/or space from the instructor. The

cyber instructor provides direct instruction to the student. A text book may or may not be required and all other materials, as well as communication with the instructor, are provided through the course web-site.

**Professional Development-** refers to the process of increasing the professional capabilities of staff by providing training and educational opportunities. Introducing new instructional material often means introducing new content, teaching strategies, and administrative responsibilities. The district has the responsibility to ensure that all faculty and staff participate in appropriate professional development activities that will result in the successful implementation of the written curriculum. This can include on-the-job training, outside training, or observation of the work of others. Professional development is widely recognized as a way to build the institutional capacity of a program and maintain high quality staff.

**Reading Intervention Program-** refers to an intervention-reading program for struggling learners. A reading program that is consistent with the core subject that incorporates high interest – low skill strategies.

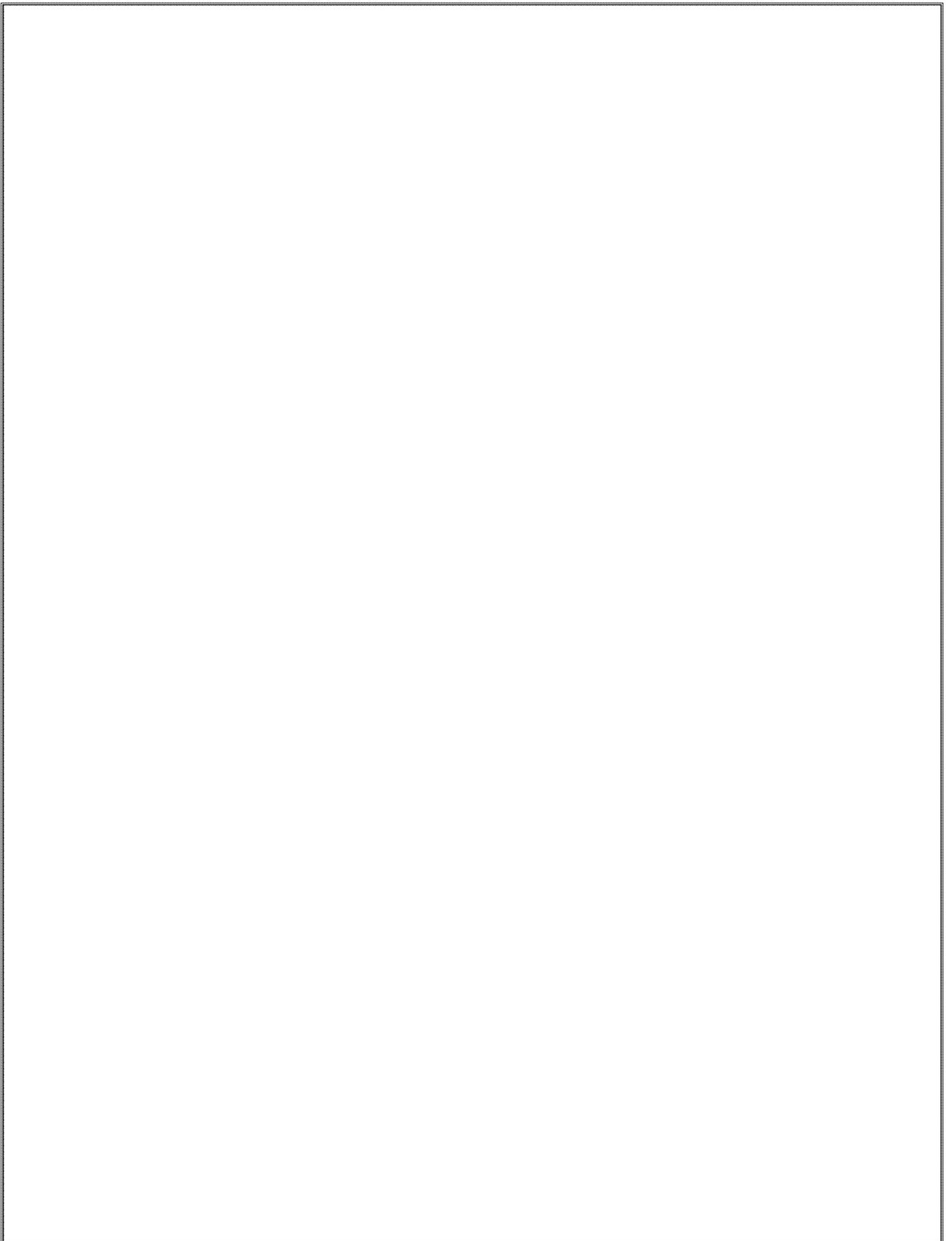
**Supplementary material-** refers to materials used to reinforce, enrich, and/ or extend the basic program of instruction.

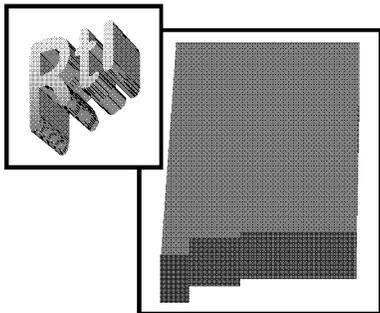
## **II. Overview of the Publisher’s Calendar for the Adoption Process**

- August:** The instructional Material Bureau announces the Request for Applications describing the content area and standards for the adoption review. The information is posted on the IMB web site.
- September:** The PED provides training on the RFA requirements of the publishers’ participation in the adoption review and the alignment to content standards.
- October:** Publishers must submit formal documents/forms as described in the RFA
- December:** Publishers must submit formal documents/forms as described in the RFA
- February:** Publishers must submit formal documents/forms as described in the RFA
- May:** Publishers participate in the Adoption Review Institute
- August:** Publishers are informed of the status of their submissions as adopted or non adopted; supplemental or core/basal categories.

**For further details please refer to the posted “Request For Applications” on the Instructional Material web site.**

<p style="text-align: center;"><b>Format</b></p>	<p style="text-align: center;"><b>Summary of the Adoption Process</b></p>
<p><b>A.</b></p> <p style="text-align: center;"><b>INSTRUCTIONAL MATERIAL ADOPTION CYCLE</b></p>	<p>The adoption “cycle” refers to the six year rotation of the content curriculum that is to be reviewed for alignment to curriculum standards and relevant criteria.</p>
<p><b>B.</b></p> <p style="text-align: center;"><b>PRINT TEXT, ELECTRONIC MEDIA INSTRUCTIONAL MATERIAL REVIEW</b></p>	<ol style="list-style-type: none"> <li>1. IMB conducts the adoption review based on the content adoption cycle with opportunities for publishers to submit instructional materials for review of alignment to NM curriculum standards and relevant criteria. Substitutions of the adopted textbook are allowed after the first year of the contract when the content remains the same. All substitutions have to be approved by the IMB.</li> <li>2. Publishers submit their instructional materials following the criteria and deadlines set out in the IMB Request for Proposals.</li> <li>3. An independent review conducted by three highly qualified educators determines the extent of the standards alignment.</li> <li>4. As a result of scoring the instructional materials, two (2) lists are formed: Core/basal and Supplementary.</li> </ol>
<p><b>C.</b></p> <p style="text-align: center;"><b>ELECTRONIC INSTRUCTIONAL MATERIAL REVIEW</b></p>	<ol style="list-style-type: none"> <li>1. IMB conducts the adoption review performed in a six year cycle with annual opportunities to upgrade courseware by publishers/vendors when the curricular content is not altered. All substitutions must be approved by the IMB.</li> <li>2. Publishers/vendors submit their electronic instructional courses following the criteria set out in the IMB Request for Applications.</li> <li>3. As a result of scoring the instructional materials, two lists are formed: Core/basal and Supplementary.</li> </ol>
<p><b>D.</b></p> <p style="text-align: center;"><b>AUTHORIZATION OF THE STATE ADOPTION MULTIPLE LIST</b></p>	<p>Pursuant to New Mexico Administrators Code 6.75.2.8 B.2f NMAC, subsequent to the review, materials will be recommended to the Secretary of Education for adoption by a panel of reviewers and department staff. The Secretary will authorize the adoption no later that August 1 of each adoption cycle.</p>



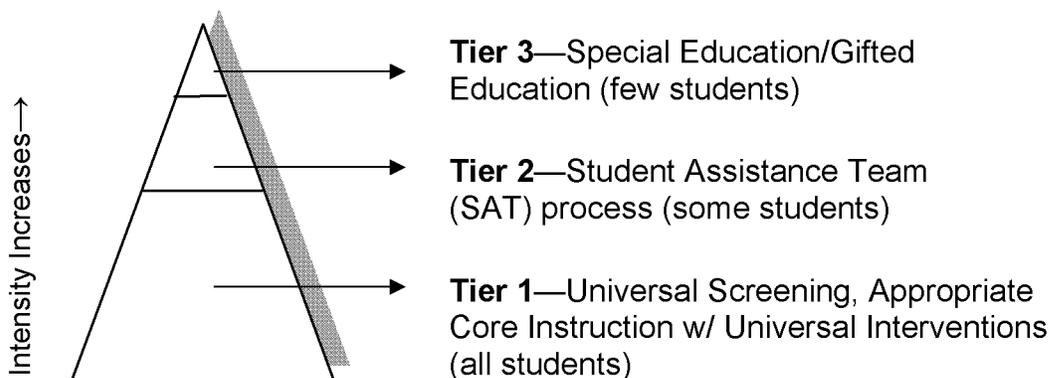


# Understanding and Implementing the Response to Intervention (RtI) Framework in New Mexico

## *A Quick Guide*

What is Response to Intervention, or RtI? It is a **framework** being used across the country and strongly encouraged by the federal government as school systems seek ways to ensure success for **all** students, and provide early assistance to students who are experiencing academic and/or behavioral challenges. Simply put, it is a continuum of school-wide support—a way for schools to organize instructional delivery, optimize resources, and use a systems approach to teaching, learning, and behavioral supports. RtI is **not** a student placement model, a location, a classroom, a class/course, or a teacher.

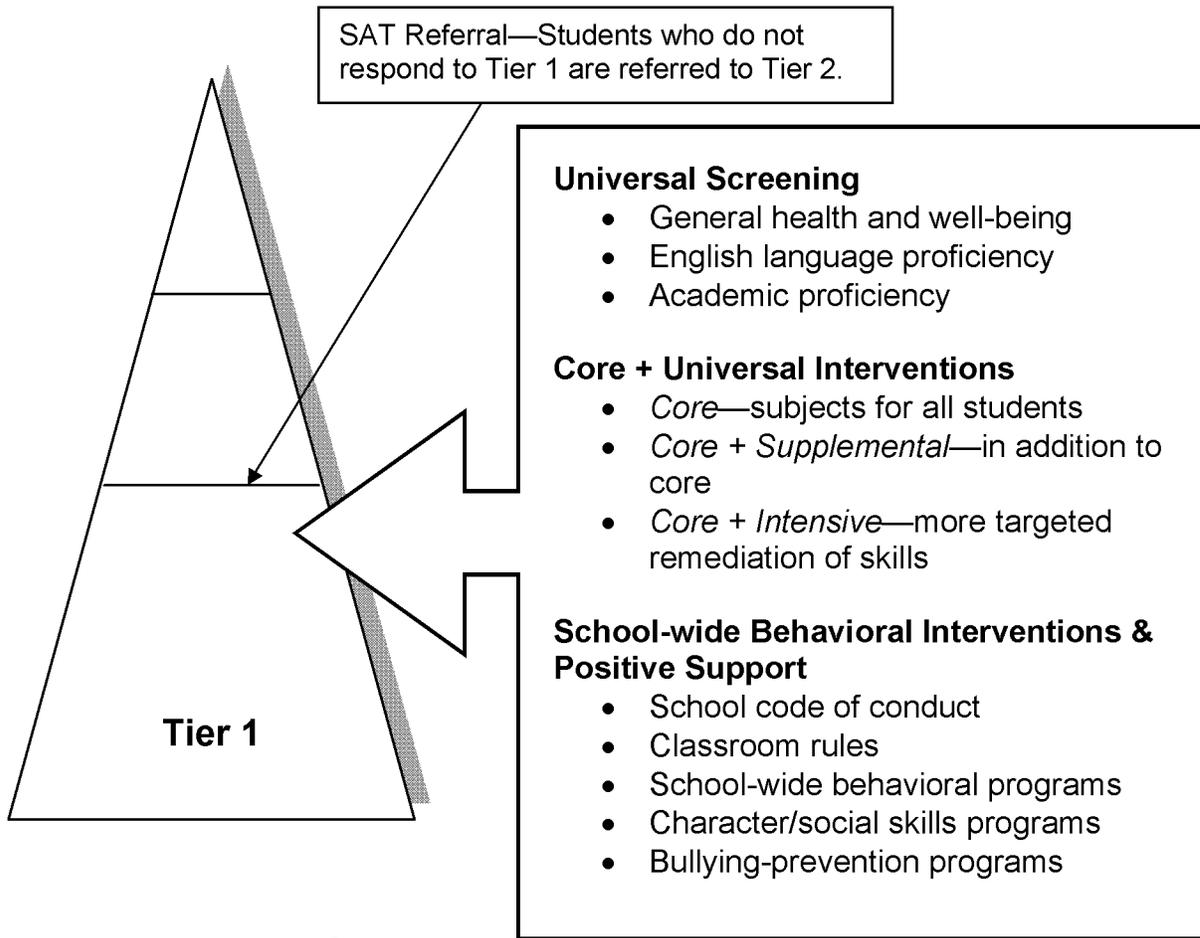
RtI frameworks feature at least three tiers where the academic or behavioral interventions change or become more intense as student needs are addressed in each tier. Currently, each state has defined its own RtI framework, as federal law does not mandate a particular one. In New Mexico, the RtI framework is set forth in state rule at § B–C of 6.31.2.10 NMAC and is known as *the three-tier model of student intervention* as shown below.



Students who struggle academically may also exhibit behavior problems and vice versa. For that reason, both academic and behavioral systems are addressed in a concerted effort in all three tiers.

The information on the pages that follow provides details and features of each tier of the state's RtI framework, as well as general implementation guidance. The state rule requiring that schools operate using the three-tier model of student intervention and this document provides the basic requirements and description for RtI in New Mexico. **From there, schools must develop a local implementation plan to set up internal policies and procedures *within* the tiers and organize their available resources around them.** Since student populations and needs vary, it is expected that no two school districts or even school buildings will have a local implementation plan within the tiers that looks precisely the same. Schools already do many things that support the RtI framework.

Questions about RtI in New Mexico may be directed to the Public Education Department's Quality Assurance Bureau Help Desk at 505-827-4296.



## **Tier 1—Universal Screening Appropriate Core Instruction with Universal Interventions**

The focus of **Tier 1** is universal screening, delivery of the core curriculum, and school-wide behavioral supports. **All** students are screened for

- general health and well-being;
- English language proficiency; and,
- academic proficiency.

**All** students are bound by the standard code of conduct and receive the core curriculum and social skills training in the general education classroom using differentiated instruction, culturally responsive and research-based programs, and high-yield instructional strategies. When many students lack mastery of the core program, the key tenet is that the curriculum and/or instruction are adjusted. The school must examine data to see if the proficiency problem is school-wide, grade, or classroom specific. Therefore, struggling students receive *supplemental* and

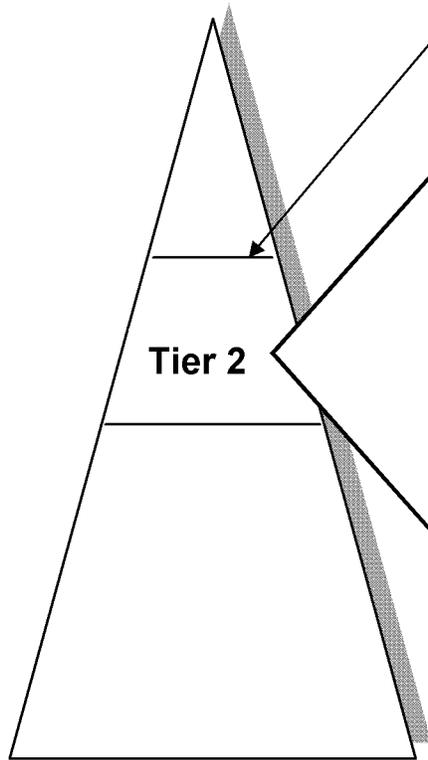
*intensive* assistance through universal interventions—remedial strategies, smaller group instruction, differentiated instruction or tiered assignments, and/or more instructional time when needed—as determined by the classroom teacher, grade-level teams, or school leadership. Parents are involved through awareness materials provided by the school, parent-teacher conferences, and progress reports.

A student who does not respond to core programs and interventions after a reasonable time is referred to Tier 2—the school’s Student Assistance Team (SAT)—for a more individualized study of what is causing him or her to struggle academically or behaviorally. Students who are exceeding grade-level expectations may also be referred to the SAT for consideration of an enrichment program.

## Tier 1 Features and Implementation Considerations

<b>Implementation and monitoring plan (Tier 1)</b>	The school develops its Tier 1 screening schedule and implementation plan, and then embeds it into the school's EPSS—the overall school improvement plan. School-based teams evaluate the fidelity and effectiveness of the EPSS.
<b>Instruction &amp; universal interventions</b>	Daily direct instruction of core for 60-90 minutes. Universal interventions (supplemental or intensive), as necessary. Explicit social skills and behavior instruction.
<b>Provider(s)</b>	Appropriately-licensed classroom teacher. Universal interventions may also be provided by a licensed, supervised support staff and/or specialist such as a bilingual, Title 1, or Indian education teacher, or others as determined by school.
<b>Group size</b>	Whole-group and small-group instruction. Small groups may vary from 3 to 12 students, or as determined by school or teacher.
<b>Frequency of universal interventions</b>	Determined by the school, grade level, or teacher. If providing extra time over core, recommend sessions 3-4 times a week, each lasting 30-60 minutes.
<b>Duration of universal interventions</b>	Core program is ongoing throughout the year. Interventions last 9-18 weeks, and can be repeated as determined by student response.
<b>Progress monitoring tools</b>	Universal screenings, periodic short-cycle assessments, yearly standards-based assessment, student work samples, curriculum-based measures, office discipline referral data.
<b>Frequency of progress monitoring</b>	3-4 times a year per short-cycle assessment schedule. Students receiving universal interventions may need more frequent monitoring as determined by school.
<b>Decision rules—what determines movement up or down between tiers</b>	The school determines what cut scores on assessments indicate mastery, satisfactory growth, or the need for more intense intervention/remediation, regrouping students, and parent involvement. Recommend considering SAT referral for students who consistently score in the lowest 20% of grade-level on short-cycle assessments only <i>after</i> universal interventions tried. Need for SAT referral for behavior based on discipline data for student.
<b>Funding</b>	Operational and school improvement funds, applicable grants, Title I/ Title III funds as allowed. For federal fund guidance see <a href="http://www.ed.gov/programs/titleiparta/08-0398rti.pdf">http://www.ed.gov/programs/titleiparta/08-0398rti.pdf</a> .
<b>Service target</b>	National models suggest that 80% of a school's students should be able to be served through Tier 1. If not, the core program and practices and/or behavioral systems need to be evaluated. The 80% target may not be possible in all cases, so moving into the 50-70% range over time is considered to be a signal of progress.
<b>Professional development</b>	Core program delivery (ongoing), differentiated instruction, data analysis, data-based decision-making, student and classroom management, teaching and interventions for culturally-different learners

Referral for evaluation—Students who do not respond to Tier 2 may be referred for a multidisciplinary evaluation.



### **Individual Child Study Process**

- Conducted by the SAT
- All available student data gathered and analyzed

### **SAT Intervention Plan**

- Individualized, written plan
- More intense interventions
- More frequent progress monitoring

### **Behavioral Intervention Plan (BIP)**

- Functional Behavioral Assessment (FBA) conducted
- Individualized written plan for behavioral support

\*\*\*\*

### **Section 504 Accommodation Plan Academic Improvement Plan (AIP)**

## **Tier 2—Student Assistance Team (SAT) process**

The focus of **Tier 2** is to provide supplemental and individualized support for at-risk students for whom Tier 1 instruction and universal interventions prove insufficient. Using the child study process, the SAT (which includes the student's parents) gathers all available data about a student, hypothesizes a possible cause for the problem, and then designs an individualized SAT Intervention Plan or Behavioral Intervention Plan (BIP), if necessary.

**What can the SAT or Behavioral Intervention Plans do that Tier 1 programs cannot?** They provide all that occurs in Tier 1, but they ramp up *intensity* for an individual student—that is, the frequency and duration of the interventions, reduced group size, and/or using specialists to deliver the instruction. Or, the SAT may design specialized interventions like replacing the core or social skills program, or reteaching it.

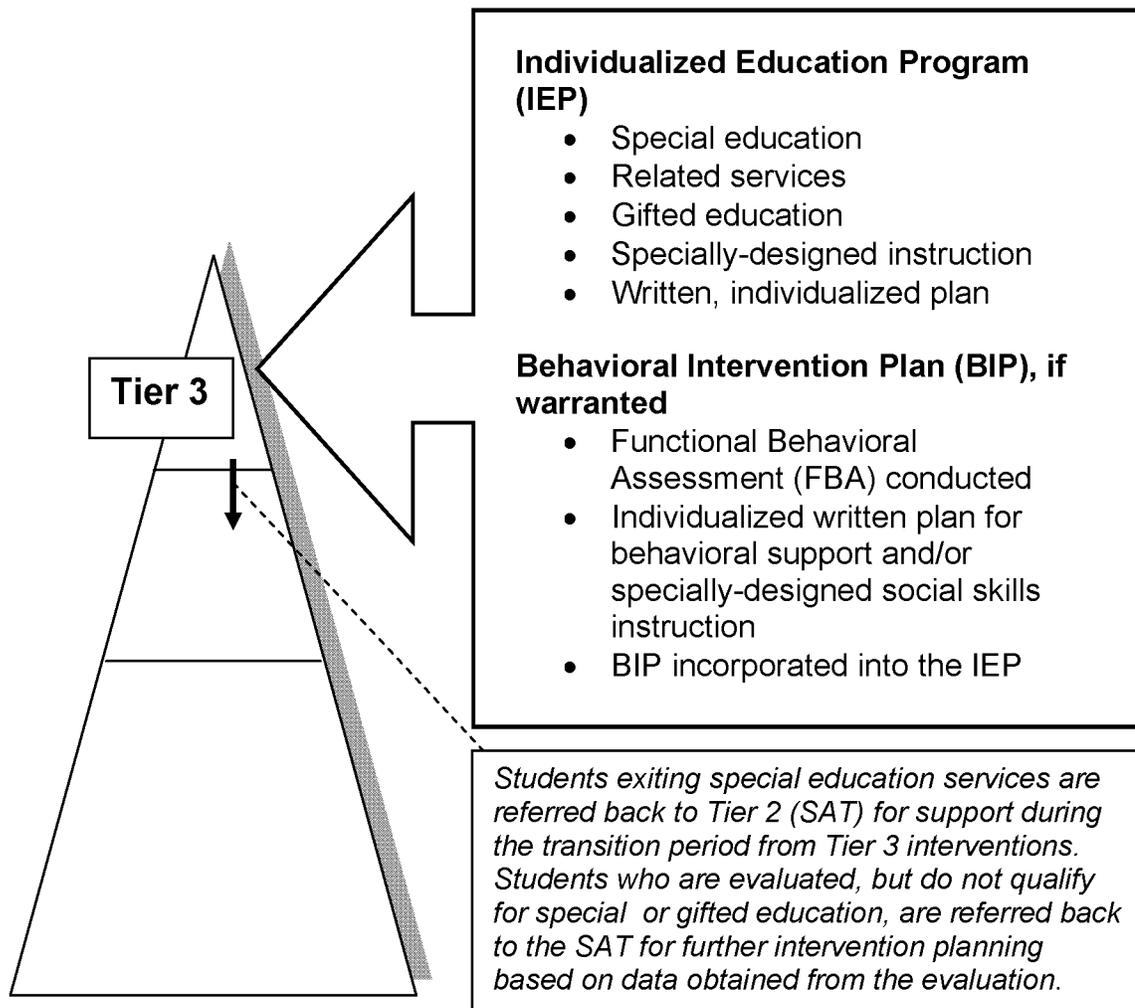
Tier 2 also provides for more frequent progress monitoring so the SAT can make faster adjustments for the at-risk student.

The SAT also serves as the Section 504 Team, as needed, and has responsibilities under state statutes for designing Academic Improvement Plans (AIPs) for students facing retention. Those procedures are outlined in the State's SAT and Section 504 technical assistance manuals at [www.ped.state.nm.us](http://www.ped.state.nm.us).

A student who does not respond positively to the SAT Intervention Plan or BIP may warrant a referral for a multidisciplinary evaluation to consider the possible need for special education. Students who show need for specialized enrichment may also be referred for a gifted evaluation. Students who are obviously disabled or in a crisis need immediate referral for evaluation.

## Tier 2 Features and Implementation Considerations

<b>Implementation and monitoring plan (Tier 2)</b>	The school establishes its own SAT. The team develops its own needs assessment and ongoing improvement plan which may be embedded into the school's EPSS. Building administrator assesses SAT implementation and fidelity.
<b>Instruction &amp; Interventions</b>	Possible replacement or reteaching of core program/social skills. Targeted interventions through a written SAT Intervention Plan or a Behavioral Intervention Plan (BIP).
<b>Provider(s)</b>	Appropriately-licensed classroom teacher and/or specialists as determined by the SAT and documented in written SAT plan
<b>Group size</b>	Individual or small-group instruction as determined by the SAT. Recommend that student receive instruction in groups of 2 to 3.
<b>Frequency of interventions</b>	Determined by the SAT. If providing extra time over core, recommend daily session lasting 60-90 minutes.
<b>Duration of intervention</b>	Recommend 9-18 weeks. Duration can be shortened or a round repeated as determined by the SAT and student's response.
<b>Progress monitoring tools</b>	Universal screenings, yearly standards-based assessment, periodic short-cycle assessments, student work samples, curriculum-based measures, and/or student behavior data
<b>Frequency of progress monitoring</b>	In addition to short-cycle assessment schedule, the SAT determines more frequent progress monitoring. Recommend weekly or bi-weekly.
<b>Decision rules</b>	The SAT determines what indicators of more frequent progress monitoring show satisfactory growth, the need for another round of interventions, or the need for more intense interventions.
<b>Upon mastery</b>	Student may continue with the SAT Intervention Plan or BIP, or be exited and returned to Tier 1 instruction/programs when performance can be maintained with universal interventions.
<b>Lack of positive response</b>	SAT may determine if student's lack of response to Tier 1 and 2 warrants a referral for a multidisciplinary evaluation for consideration of special education services or gifted education. <i>Note:</i> Under the IDEA, parents may ask the school to <i>consider</i> a request for an evaluation at any time and the request is not conditioned upon failure or having to advance through the tiers
<b>Funding</b>	Operational and school improvement funds, applicable grants, Title I / Title III / Coordinated Early Intervening Services (CEIS) funds as allowed by IDEA and state rule. For federal guidance see <a href="http://www.ed.gov/programs/titleiparta/08-0398rti.pdf">http://www.ed.gov/programs/titleiparta/08-0398rti.pdf</a>
<b>Service target</b>	National models suggest that no more than 15-20% of a school's students can be effectively served by the SAT without compromising the school's delivery infrastructure. High rate of SAT referrals and/or retention recommendations suggest that the Tier 1 core program and practices need to be evaluated.
<b>Professional development</b>	Tier 1 topics, SAT procedures, functional behavioral assessment (FBA), and behavioral interventions.



### Tier 3—Special Education/Gifted Education

In New Mexico, the definition of **Tier 3** is special education and related services for students with identified disabilities under the federal Individuals with Disabilities Education Act (IDEA) and the state criteria of gifted. In making the eligibility determination for Tier 3, the educational diagnostician and the multidisciplinary team will take into account student response data from interventions tried and documented from Tiers 1 and 2.

Students being served through Tier 3 procedures are the most at-risk academically or behaviorally and they demonstrate a need for intensive help and specially -designed instruction. In Tier 3, the student’s IEP team is responsible for developing the

individualized programming, as well as determining the need for any related services and/or behavioral support. Parents are part of the IEP team.

Under the IDEA, students with disabilities must receive their education to the maximum extent possible in the general education classroom. So, although students being served at Tier 3 through a written IEP receive the most intense interventions, they do so alongside peers in the general education classroom as much as possible. Therefore, it is important to remember that RtI is not a student *placement* model or location. Rather, RtI is the organizational system by which schools design and deliver instruction.

## Tier 3 Features and Implementation Considerations

<b>Implementation and monitoring plan (Tier 3)</b>	School's procedures must be conducted in compliance with the federal IDEA and state special education rules. Compliance and fidelity overseen by building or district administrator.
<b>Instruction &amp; Interventions</b>	Specially-designed instruction through a written IEP, as well as a Behavioral Intervention Plan (BIP), if warranted
<b>Provider(s)</b>	Appropriately-licensed classroom teacher, special education teacher, and/or specialists and related service providers. Determined by the IEP team and documented in IEP service schedule.
<b>Group size</b>	Individual, small-, or whole-group instruction as specified in the IEP. Provided in the general education classroom to the extent possible as determined by the IEP team
<b>Frequency of interventions</b>	Determined by the IEP team depending on individual student need
<b>Duration of intervention</b>	IEP determines length of time before IEP is reviewed, but at least annually. Possible long-term interventions necessary.
<b>Progress monitoring tools</b>	Yearly standards-based assessment, periodic short-cycle assessments, student work samples, curriculum-based measures, diagnostic tests, behavior observation data collection
<b>Frequency of progress monitoring</b>	In addition to short-cycle assessment schedule, the IEP team determines the level of more frequent progress monitoring and documents it in the IEP. Recommend weekly. IEP team determines if student participates in standards-based or alternate assessment, as well as what testing accommodations are needed.
<b>Decision rules</b>	The IEP team determines what indicators from progress monitoring of the individual student show growth or the need for more intense intervention and/or remediation via the IEP.
<b>Upon mastery</b>	Student may be continued in special education or exited and returned to Tier 1 or 2 instruction/programs. IEP team determines mastery of IEP goals.
<b>Funding</b>	Operational funds, IDEA funds, applicable grants
<b>Service target</b>	National models suggest that no more than 1-5 % of the student population at a school need this level of support. However, given that New Mexico includes gifted education (4.3%) at Tier 3 and current national percentages for students with disabilities average 13.5%, the State has determined that 18% or less would be an acceptable service target for Tier 3.
<b>Professional development</b>	In addition to Tier 1 and 2 professional development topics, relevant IEP team members need to participate in ongoing trainings related to special education and IDEA procedures/topics.

## Rtl Glossary—Featured Terms

**Core curriculum** is a course of study which is deemed critical and usually made mandatory for all students of a school or school system. Core curricula must be scientific and research-based.

**Curriculum-Based Measures (CBMs)** are direct assessments of student skills administered in standardized manner that are aligned to state content standards and benchmarks. They are typically brief, timed samples. Student-level results are typically graphed and compared to classroom peers.

**Fidelity** refers to the degree to which Rtl components are implemented as designed, intended, and planned. Fidelity is achieved through sufficient time allocation, adequate intervention intensity, qualified and trained staff, and sufficient materials and resources. Fidelity is vital in universal screening, instructional delivery, and progress monitoring

**Functional Behavioral Assessment (FBA)** is a problem-solving process that relies on a variety of techniques and strategies to identify the “triggers” and purposes of specific behavior enabling school teams to better select interventions to directly address the problem behavior. An FBA lays the foundation for a Behavioral Intervention Plan (BIP).

**High-yield instructional strategies** are research-based teaching strategies that increase student achievement. See *Classroom Instruction that Works: Research–Based Strategies for Increasing Student Achievement* (ASCD) by Dr. Robert J. Marzano, et. al.

**Intervention** is any change to increase the *intensity* of instruction. Changes can be made in the areas of program, time, grouping, or instructor skill level. Interventions are successful when data shows a narrowing of the achievement gap and/or a reduction in problem behavior and an increase in the desired replacement behavior.

**Multidisciplinary evaluation** is a battery of individual diagnostic tests conducted by an educational diagnostician used to assess a student’s possible need for special education services or gifted education.

**Progress monitoring** is the process used to assess the effectiveness of instruction and evaluate a student’s response to it. Progress monitoring happens in all tiers.

**Tiered instruction** is the level of instructional intensity *within* a tier. **Tiered assignments** are ones where students in a class work on different levels of activities depending on skill level toward a common objective. Tiered assignments or instruction can be interventions.

**Tiered model** is a common model of three or more tiers that comprise an overall Rtl framework and delineates how a school or system organizes to deliver instruction based on student need. New Mexico uses a three-tier model defined in state rule at § B–C of 6.31.2.10 NMAC.

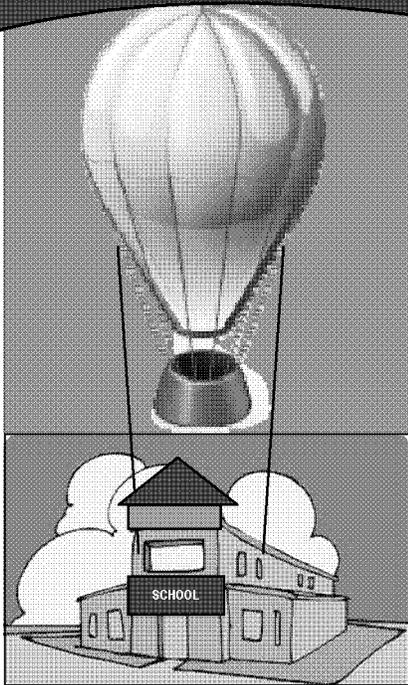
**Universal interventions** are best instructional practices, part of effective instruction, and are the first line of intervention for all students. They are applied on a school-wide, grade-level, or classroom basis.

## Web-based Resources for Rtl

- ★ Public Education Department’s Rtl website [www.ped.state.nm.us/Rtl/index.html](http://www.ped.state.nm.us/Rtl/index.html)
- ★ Rtl Action Network [www.rtinetwork.org](http://www.rtinetwork.org)
- ★ National Center on Response to Intervention [www.rti4success.org](http://www.rti4success.org)
- ★ IRIS Center for Rtl Training Modules <http://iris.peabody.vanderbilt.edu/resources.html>

The New Mexico Public Education Department  
Presents

# 2010 Schools on the Rise Day



**Ben Alexander Elementary**  
**Career Academy Alternative High**  
**Dulce High**  
**Edgewood Elementary**  
**Jefferson Elementary**  
**Lea Elementary**  
**Llano Elementary**  
**Loving High**  
**Mountainair Junior High**  
**Mora High**  
**Rocinante High**  
**Roswell High**  
**Sierra Alternative High**  
**Tohatchi Elementary**



STATE OF NEW MEXICO EXECUTIVE OFFICE SANTA FE, NEW MEXICO

# Proclamation

*WHEREAS, the State of New Mexico is committed to closing the achievement gap in our schools; and*

*WHEREAS, 262 of the state's public schools for the year 2007-2008 met or exceeded adequate yearly progress; and*

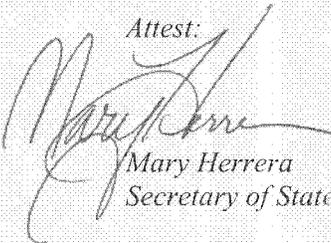
*WHEREAS, through a focus on data, quality instruction, and intensive interventions, thirteen public schools have worked hard to achieve this standard and are listed as follows: Reginald Chavez Elementary, Ventana Ranch Elementary, Eubank Elementary (Albuquerque Public Schools); Tierra Amarilla Middle (Chama Valley Independent Schools); Jemez Valley Elementary (Jemez Valley Public Schools); Mesilla Park Elementary (Las Cruces Public Schools); Mountain View Elementary (Moriarty-Edgewood Schools); Peñasco Elementary (Peñasco Independent Schools); Pecos Elementary, Sierra Middle, Mountain View Elementary (Roswell Independent Schools); G.W. Stout Elementary (Silver Consolidated Schools); and Tucumcari Middle (Tucumcari Public Schools), and are no longer designated as Schools in Need of Improvement (SINOI) as they have made Adequate Yearly Progress for two consecutive school years;*

*NOW, THEREFORE I, Bill Richardson, Governor of the State of New Mexico, do hereby proclaim February 11, 2009 as:*

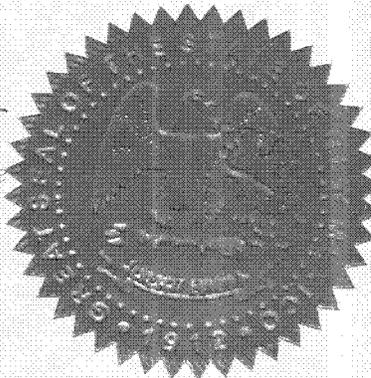
## **"Schools on the Rise Day"**

*and urge all citizens to congratulate our honorees for their dedication, innovation, and hard work in making New Mexico a "quality state" with "schools on the rise" in raising student achievement.*

Attest:

  
Mary Herrera  
Secretary of State

Done at the Executive Office this  
26th day of January, 2009.



Witness my hand and the Great Seal  
of the Great State of New Mexico

  
Bill Richardson  
Governor



**A MEMORIAL  
DECLARING FEBRUARY 10, 2010, as "SCHOOLS ON THE RISE DAY" AT THE SENATE**

*WHEREAS, New Mexico's education standards, assessments, and school accountability are now among the best in the country as judged by Education Week's Quality Counts Survey; and*

*WHEREAS, New Mexico has become a national model in the areas of early childhood education and college and career readiness, and for having highly qualified teachers in all classrooms; and*

*WHEREAS, closing the achievement gap in New Mexico's schools is a goal of all dedicated educators, policymakers, and residents of the state; and*

*WHEREAS, 260 of New Mexico's 820 public schools met or exceeded adequate yearly progress this year; and*

*WHEREAS, through the hard work and dedication of faculty and administrators and their commitment to the future of all New Mexico's children, 14 schools have been designated as "Schools on the Rise" for achieving adequate yearly progress for 2 consecutive years after undergoing restructuring; and*

*WHEREAS, those schools are Sierra Vista Alternative High School in Albuquerque Public Schools; Dulce High School in Dulce Independent Schools; Rocinante High School in Farmington Municipal Schools; Tohatchi Elementary School in Gallup-McKinley County Schools; Loving High School in Loving Municipal Schools; Ben Alexander, Jefferson, Llano, and Lea Elementary Schools in Lovington Municipal Schools; Mora High School in Mora Independent Schools; Edgewood Elementary School in Moriarty-Edgewood Schools; Mountainair Jr High School in Mountainair Public Schools; Roswell High School in Roswell Independent Schools; and Career Academy in Santa Fe Public Schools.*

*NOW, THEREFORE, BE IT RESOLVED BY THE SENATE OF THE STATE OF NEW MEXICO that February 10, 2010, be declared "Schools on the Rise Day" at the Senate to honor and recognize those 14 schools; and*

*BE IT FURTHER RESOLVED that a copy of this memorial be transmitted to each of the 14 "Schools on the Rise."*



**A MEMORIAL**

**DECLARING FEBRUARY 10, 2010, as "SCHOOLS ON THE RISE DAY" AT THE HOUSE**

*WHEREAS, New Mexico's education standards, assessments, and school accountability are now among the best in the country as judged by Education Week's Quality Counts Survey; and*

*WHEREAS, New Mexico has become a national model in the areas of early childhood education and college and career readiness, and for having highly qualified teachers in all classrooms; and*

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*BE IT FURTHER RESOLVED that a copy of this memorial be transmitted to each of the 14*

*"Schools on the Rise."*



The Public Education Department thanks the New Mexico State Legislators for their hard work and for continuous support of public education in the state.

2010

State Senators

Rod Adair	Clinton D. Harden, Jr.	Gerald Ortiz y Pino
Vernon D. Asbill	Stuart Ingle	Mary Kay Papan
Sue Wilson Beffort	Timothy Z. Jennings	William H. Payne
Mark Boitano	Timothy M. Keller	John Pinto
Pete Campos	Gay G. Kernan	Nancy Rodriguez
Carlos R. Cisneros	Carroll H. Leavell	Sander Rue
Kent L. Cravens	Linda M. Lopez	John C. Ryan
Dianna J. Duran	Lynda M. Lovejoy	Bernadette M. Sanchez
Tim Eichenberg	Richard C. Martinez	Michael S. Sanchez
Dede Feldman	Cisco McSorley	John M. Sapien
Stephen H. Fischmann	Howie C. Morales	William E. Sharer
Mary Jane Garcia	George K. Munoz	John Arthur Smith
Eric G. Griego	Cynthia Nava	David Ulibarri
Phil A. Griego	Steven P. Neville	Peter Wirth

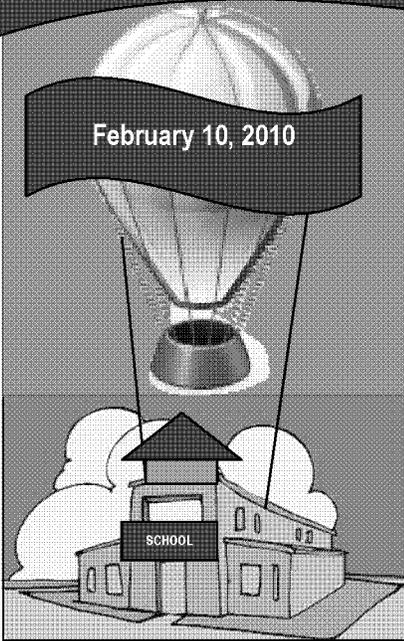
2010

State Representatives

Eliseo Lee Alcon	Roberto "Bobby" J. Gonzales	Jane E. Powdrell-Culbert
Thomas A. Anderson	William J. Gray	William "Bill" R. Rehm
Janice E. Arnold-Jones	Joni Marie Gutierrez	Dennis J. Roch
Paul C. Bandy	Jimmie C. Hall	Benjamin H. Rodefer
Elias Barela	Dianne Miller Hamilton	Debbie A. Rodella
Andrew J. Barreras	John A. Heaton	Henri Kiki Saavedra
Ray Begay	Dona G. Irwin	Nick L. Salazar
Donald E. Bratton	Sandra D. Jeff	Edward C. Sandoval
Jose A. Campos	Rhonda S. King	Sheryl Williams Stapleton
Joseph Cervantes	Dennis J. Kintigh	Jeff Steinborn
Gail Chasey	Larry A. Larrañaga	Mimi Stewart
Eleanor Chavez	Antonio Lujan	James R. J. Strickler
Ernest H. Chavez	Ben Lujan	Thomas C. Taylor
Zachary J. Cook	Patricia A. Lundstrom	Jack E. Thomas
Nathan P. Cote	James Roger Madalena	Don L. Tripp
Anna M. Crook	Antonio "Moe" Maestas	Jim R. Trujillo
Brian F. Egoft, Jr.	Rodolpho "Rudy" S. Martinez	Shirley A. Tyler
Nora Espinoza	Ken W. Martinez	Luciano "Lucky" Varela
Candy Spence Ezzell	Kathy A. McCoy	Gloria C. Vaughn
Mary Helen Garcia	Rick Miera	Richard D. Vigil
Miguel P. Garcia	Andy Nuñez	Jeanette O. Wallace
Thomas A. Garcia	Bill B. O'Neill	James P. White
Keith J. Gardner	Al Park	
Karen E. Giannini	Danice Picraux	

# 2010 Schools on the Rise Day

February 10, 2010



## Agenda

### Welcome and Introductions

Dr. Sheila Hyde,

Assistant Secretary

Quality Assurance and Systems Integration Division

### Address to honorees and Guests

Dr. Veronica C. García,

Secretary of Education

### Reading of the House Memorial and Remarks by Representative Miera

### Remarks by Senator Nava

### Remarks by Representative Miera

### Presentation of "Schools on the Rise" Certificates and Awards

### Closing Remarks: Dr. Sheila Hyde

### Reception in PED lobby (refreshments and photo opportunities)

Ben Alexander Elementary

Career Academy Alt. High

Dulce High

Edgewood Elementary

Jefferson Elementary

Lea Elementary

Llano Elementary

Loving High

Mountainair Junior High

Mora High

Rocinante High

Roswell High

Sierra Alternative High

Tohatchi Elementary

# BEN ALEXANDER ELEMENTARY SCHOOL

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Students in the Lovington Municipal School District are located on grade-level campuses. Ben Alexander Elementary School houses on average 240 second graders and is a school-wide Title I campus. The demographic breakdown of students is 79% Hispanic, 18% Caucasian, 2% Black, and less than 1% Asian. Our staff consists of 1 principal, 10 regular education teachers, 2 dual language teachers, 2 reading intervention teachers, 1 special education teacher, 1 music teacher, 1 literacy coach, 1 secretary, and 4 instructional assistants.

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The staff and faculty at Ben Alexander Elementary School strive to create a very warm and inviting atmosphere for both students and parents. The learning climate challenges all students to “Be The Best You Can Be.” Proper manners and respect are emphasized daily, adding to the positive climate that exists in the building.

We strive to educate the whole child and believe in the words of Haim Ginott—*To reach a child’s mind, a teacher must capture his heart. Only if a child feels right, can he think right.*

*The mission of Ben Alexander Elementary School is to instill strong character in our students and build a solid academic background, creating an educational cornerstone for success in life.*

## Community Aspects

Lovington was founded on September 12, 1908. It is located in the southeastern corner of New Mexico, in Lea County, and approximately 18 miles from the Texas border. It has long served as the county seat. In its early days, most of the residents derived their livelihood from farming and ranching. In the 1940s and 1950s, oil and gas became ever more important to the economy of Lovington. Today the oil and gas industry employs the greatest number of people in our city and provides the largest portion of its tax base. The dairy industry has become an important part of Lovington’s landscape in the last decade. Today a number of thriving dairies are helping diversify the local economy.

## INGREDIENTS FOR SUCCESS

### Data-Driven Instruction

The success we experience at Ben Alexander is due to in-depth analysis of our strengths and needs based on CRT and DIBELS data. We prioritize our schedules to include 90 minutes of uninterrupted reading, 30 minutes of guided reading, 60 minutes of writing, and 60 minutes of math. Building-wide goals are set to motivate students, parents, and staff members. With our goals ever before us, we adapt teaching methods to the needs of student groups while holding the same high expectations for all.

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Guided Reading Instruction

### Professional Development

A weekly "Principal Conference" helps maintain the focus of our goals. During these meetings, led by Doug Choate, principal, or Virginia Hurse, literacy coach, we analyze DIBELS data, celebrate our successes, work in reading and math teams, and provide training to the staff. Much of this training is to equip our teachers with strategies for English Language Learners based on *A+Rise, An Instructional Strategy Guide for Classroom Teachers*, by Evelyn Arroya and Robert Marzano's nine high-yield strategies. Extensive training is also provided as part of an on-going implementation of a syllabication program developed by the literacy coach.

### Vertical Teaming

We share our literacy coach with the first-grade campus, Lea Elementary. Her work with both campuses raises expectations for our second graders. Together with Lea, we present in-depth training on the five big ideas of reading for new staff members at both campuses. Strong teacher support for new staff members is provided through our mentoring program. Our teachers give many hours of time outside of the contract day to help each other.

### After-School Program

Our strong Student Assistance Team (SAT) process allows teachers to bring before the committee individual students who are not meeting their goals. We provide teachers with additional teaching strategies to help students reach their potential. An after-school program is provided where teachers work with small groups of students using *leveled readers* and reinforce phonics skills through a consistent routine. Other students work in our computer lab on the Waterford Reading Program at individual levels. Approximately 20% of the students participate in this program.

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Students working in the computer lab

**Incentives**

*Perfect Attendance*

Ben Alexander recognizes that attending school is critical for academic growth. Mr. Choate, principal, greets each classroom every morning and hands out "Perfect Attendance" flags to the classes with all students present. Each month the class with the most days of perfect attendance receives a pizza party.

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*Fluency Parade*

Students track their own progress in reading fluency with DIBELS progress monitoring every two weeks. Each time students increase their reading rate by 10 words per minute they earn an incentive as well as getting to participate in the Fluency Parade through the halls. All students and staff turn out to cheer these students as they march through the building.

*BUG Club "Bringing Up Grades"*

This club encourages all students to set goals for improvement. Students, who raise at least two grades a minimum of five points, without letting any of their other grades drop from the previous nine weeks, join the BUG Club.

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*Honor Roll*

Students are placed on the Honor Roll when they earn all As, or receive not more than two Bs, and do not miss more than 10% of their homework assignments.

*Principal's Club*

Each nine weeks students who have perfect attendance, are on the Honor Roll or a member of the BUG Club, and have turned in all homework assignments become members of our most honored club—Principal's Club.

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## PARENT AND COMMUNITY INVOLVEMENT

### Partners In Education

Businesses in Lovington support our campus through a variety of donations. **Halsell Family Chiropractic Center** donates school supplies in backpacks for many of our students. Ben Alexander partners with employees of **ConocoPhillips** who donate their time to read in classrooms each month. **One Way Graphics** and **Lea County Electric Cooperative (LCEC)** provide t-shirts for our students who are honored as good citizens through our "Wonderful Wildcats" program. LCEC provides door prizes for our Parent Education nights. Our students give back to the community through our pumpkin decorating contest. **Wier Farms** donates pumpkins for every student. Families decorate the pumpkins for the contest. Students vote on the finalists by giving money to their favorite pumpkin. The money is combined with donations from LCEC employees to provide Thanksgiving food baskets to needy families. The students who decorate the top 10 winning pumpkins travel to LCEC to help fill the baskets. Ben Alexander also raises money for needy families at Christmas. This project is also done in conjunction with LCEC.

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### Parent Teacher Organization

Ben Alexander Parent Teacher Organization (PTO) provides parent helpers who work with classroom teachers in creating displays in the halls, helping with special events, and raising money to provide extra materials for the building. The PTO is also responsible for publishing and providing each student with a yearbook.

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Parent Math Night

## SUSTAINABILITY

Continual self-evaluation is the key to the sustainability of our program. Even as we meet current goals, we raise expectations for our students and staff. We believe in the philosophy that data drives instruction. We will continue to implement instructional strategies that prove effective as evidenced by student success.

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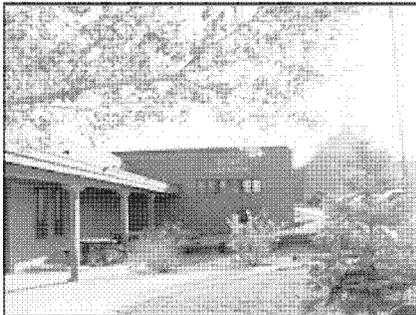
District support is critical for the sustainability of our success. The district provides funds for a literacy coach, intervention teachers, and the after-school program. They also provide opportunities for teachers to acquire skills through in-depth training.

Teachers working on ELL strategies

# CAREER ACADEMY



## School Profile/Demographic Information



### Mission

The Academy exists to ensure every student graduates prepared to be a productive citizen of our local and global community. We provide every student with multiple learning opportunities to meet challenging standards in a safe, caring and respectful environment.

### Vision

The Academy vision is to provide every student with a high quality education in a system of equity, diversity, and social justice. Every student is expected to graduate prepared to take advantage of life-long learning opportunities.

### Faculty and Staff

The Career Academy Staff is comprised of 8 highly qualified teachers most of whom are master teachers. The average teaching experience of the staff is 20 + years. These professionals are also implementing one of the nation's state of the art on-line curriculum programs. A key member of the staff is the guidance counselor who interviews all prospective students and works one-on one with these students through graduation once they are accepted.

### Demographics

The Career Academy is an alternative public high school in Santa Fe. The student population ranges from 100 to 125 students with the ethnic distribution of approximately:

83.5% Hispanic  
11.9% Anglo  
3.7% Native American  
0.9% Asian

## Community Aspects

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The Career Academy is a result of a Santa Fe Public Schools Blue Ribbon Task Force on Alternative Education. The task force began their work in the fall of 1995 and met for six months before recommending that the District provide funding for an alternative high school for at-risk students and a supporting child care component to be run in collaboration with the Santa Fe High School Teen Parent Nursery. In August 1996, the Career Academy opened to approximately 90 students, under a partnership agreement with SER, Santa Fe Jobs for Progress, Inc., and the Santa Fe Public School District.

Students who choose to come to our school have often had difficulties in traditional comprehensive high schools. Some of our students prefer a smaller learning environment, others may have personal issues, while others are returning from dropping out of high school. The Career Academy is dedicated to serving the needs of students who have not been successful in traditional high schools. The Academy is also beneficial to fast learners who have grown bored in traditional classrooms. Since students work at their own pace, learning is accelerated and credits are earned more quickly.

While the Career Academy does not offer special education services or English Language Learner programs, the individualized attention given by staff members assists these students despite the fact that they have waived special services.

## Ingredients for success

The Career Academy is unique in the district in that it is a small high school setting. The curriculum is the self-paced E2020 Educational Curriculum, which is delivered by highly qualified teachers in the videos presented. Classroom teachers are then responsible for re-teaching challenging concepts, filling in the gaps from past learning, and differentiating material as need to help the student reach concept mastery. Students are not able to move forward until they master concepts.

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Faculty members also provide pull out instruction, conduct small group work, and prepare students for graduation requirements. Students are mentored weekly by an assigned faculty member to set academic goals, diagnose learning concerns, develop success strategies, and ensure students make progress toward graduation.

With the adoption of the E2020 curriculum in 2006 and the guidance of a 30+ year administrator, the Career Academy has grown in achievement and post graduation student success. At last year's graduation, 96% of the graduates stated they had plans to attend either the local community college or a four-year institution. Transfer students now apply from both of the district's

comprehensive high schools, charter schools, as well as local private schools seeking the quality personalized school environment that the Career Academy provides.

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One of the first and most important steps in our journey to creating a successful high school was to develop a strong, cohesive staff committed to student growth, personal respect, and high expectations. A sense of community pervades the entire school community where students feel safe, where they are greeted daily by all staff members, and where their success is truly valued. It is common for teachers to congratulate students in the hall for a successful quiz, a well-handled personal conflict, or a successful admission to college.

In addition to providing students with a safe and encouraging school environment, the staff facilitates an E2020 standard-based curriculum. This new instructional delivery system necessitated a review of teaching strategies. Teachers learned that they had to develop new methods to bridge the gaps left in previous learning. In a typical English classroom, the teacher may have up to 20 students working on 20 different assignments across four years of Language Arts curriculum.

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The Career Academy is furthering student success by the addition of the Advancement Via Individual Determination (AVID) program to the school this year.

## Parent and Community Involvement

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High expectations are not only expected for academic performance, but also for consistent attendance, positive behavior, and active participation. When a student is absent, a teacher or counselor will personally contact the parent or guardian of the student to ascertain the reason for the absence and to ensure that parent is aware of absence. When students return to school, teachers inquire about students' absences and let them know they were missed. Because of the mutual respect held between teachers and students, behavior problems are rare. The size of the learning community allows staff members to monitor potential situations and refer students to the counselor who aids them in conflict resolution.

Students are motivated through high expectations and opportunities. The phrase "Si, se puede" is part of daily life at the school. When students have heard discouraging messages in other places, they hear "Yes, you can" at the Career Academy. Mere encouragement is not enough to guarantee success.

The school has offered after school tutoring for three years, and students meet regularly with the counselor to discuss their progress in terms of credits toward graduation. The counselor arranges regular and repeated college representative visits which motivate students, and he avidly guides students to register in dual enrollment course work at Santa Fe Community College (SFCC), Northern New Mexico College, and Central New Mexico. College Night is highly supported by staff members who assist students as they meet representatives at the highly attended event at SFCC. One-third of the student population attended this year's event. The Career Academy also sends more dual enrollment students to local colleges per capita than the local comprehensive high schools. Dual enrollment participation is one means of helping students see that they can succeed in college.

Success motivates as well. Some students experience learning success for the first time at the Career Academy. These successes, whether the first experience or a continuation, also motivate students. The Career Academy encourages students through special speaker presentations, including professionals speaking about forensics, medicine, or even student loans. Further, programs like Youth Opportunities in Retail are coordinated and delivered to our student population.

Additional student support comes in the form of ENLACE-funded AVID tutors. ENLACE's mission is to increase the high school and college retention and graduation rates of Latino and other students in New Mexico while smoothing the transition process from one level of the education pipeline to the next. The tutors assist students in AVID classes and provide them with actual college role models.

The Career Academy is an active member in its community regularly participating in local food drives, coat drives, and art contests.

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## Sustainability

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Continued growth of the Career Academy will be sustained due to its leadership's vision and the designation of a larger facility in the district. The new facility will allow the school to develop a full middle school alternative program in addition to the high school program. Further, the Career Academy will apply its current model to several small learning communities in the school, thereby, maintaining the key elements of the school's success. In the near future, the Career Academy hopes to include a middle school AVID program where students can learn success strategies at an earlier age.



# Dulce High School

“HOME OF THE HAWKS”

97 Hawks Drive

P.O. Box 547

Dulce, NM 87528

PH: 575-759-2958

FAX: 575-759-3535

R. Kartchner, Principal

P. Montoya, Assistant Principal



**Mission:** Dulce High School joins parents and community assisting students in developing skills to become independent and self-sufficient.

**Vision:** Dulce High School will employ researched-based methods, systems, and resources to ensure that all students learn a curriculum based on real life. It is the responsibility of parents, staff, administration and community to raise expectations of our students so that they may become viable citizens of the school, the local and global communities, now and for the rest of their lives.

## Ingredients for Success

What did you do? What worked?  
How did you motivate  
your students and staff?  
School goals? Incentives?

One ingredient for success was leadership. We had another new principal, in a long line of new principals, but this one stayed for more than one year. This continuity of leadership and her vision of what we could become helped pave the way for change. A recurrent absence of stable leadership had left the faculty largely unaware of the dire straits of our restructuring status. We also instituted a leadership team and began meeting on a monthly, then weekly basis. Their generous time commitment was invaluable in getting changes implemented. Other faculty members also gave time to working on various aspects of the change process. The after-school program for homework help and remediation was an element in furthering student success.

With other schools, we began a series of out-of-district trainings for the leadership team and principal. Notably, we had a coach from Jim Shipley Associates, Carole McGurk, to help implement a systems approach including PDSA (plan, do, study, act) and ACE. Ms. McGurk presented several trainings in-district and also visited with classroom teachers to review change implementation fidelity.

Along the way, we raised the bar for everyone—expectations for leadership, faculty, support staff, and students. As we began looking at assessment data, we paid more attention to strategies and interventions that were research-based. We also paid close attention to testing conditions that were proven effective—separated males and females for SBA tests, emphasized the importance of short-cycle assessments (NWEA MAPS), made sure students were in a familiar setting with familiar teachers for tests, made sure students had water and a snack during breaks, minimized interruptions (no bells, no calls), and test sites used were in an out-of-the-way area.

A research-based reading intervention in 2007 (Scholastic's *READ 180 program*) has made a big difference for students. As students are able to read better, they are able to perform better in classes and on tests. The intervention strategies are tools the students can transfer to other classes and situations. Likewise, intervention strategies carried over to the math program. Many of the strategies for math were also used elsewhere in the curriculum, but involved such things as warm-up and exit questions, guided notes, quick checks, use of color (on notes, the board, highlighting major concepts, graphing), activities (foldables, matching/sorting games, going to the board, team competitions for bragging rights, playing "Horse" by correctly answering questions). Giving immediate feedback to students on how they are doing and very frequent feedback on grades (often once a week) has helped students keep focused and on track. Using ACE questions across the curriculum has helped students be better writers and better at extended response questions on tests.

We committed our school culture to time-on-task. In the midst of major demolition we were building a new high school during this time. Our physical plant was in total chaos, so we each attended to the necessity of making our classrooms a haven from outside distractions. Besides setting some time aside for trainings and frequent meetings related to school improvement, faculty and staff, students, and our principal also had a building to plan. Notwithstanding these environmental challenges, perhaps these changes morphed into a modification of how we thought about running our future school.

## Parent and Community Involvement

**How do school culture and parent/community support and involvement contribute to the success of your school?**

Dulce, NM is located on the Jicarilla Apache Reservation in North Central New Mexico. It has a population of about 3,400.

Dulce High School is populated by students who live in Dulce, Lumberton, and other small communities surrounding Dulce. The student population of Dulce High School is 93.8% Jicarilla Apache. The school is also 100% Free and Reduced Lunch and a low socio-economic base.

Parent and community involvement has been an area of challenge for us since the beginning of this restructuring process. Our principal has been instrumental in getting the restructuring message out to the community through weekly radio announcements and the local newspaper. She also instituted parent grade-level meetings. Although these parent meetings have not always been well attended, they have publicized what's new at our high school through word-of-mouth. Explaining the four-year plan with individual students has also helped parents and students understand the crucial element credits play in graduation. At every opportunity, graduation requirements have been emphasized to the board, parents, and students. There is now a better understanding of how the high school differs from other schools in the community. Furthermore, GEAR-UP meetings for incoming freshmen have played an important role in getting parents involved in their child's education.

The school has become more visitor-friendly by implementing changes based on customer service office procedures. Gradually, we have seen more parental involvement in parent conferences. The faculty has continually invited as many parents as possible by telephone or in-person to parent conferences. Teachers have stressed parent conferences in their classes often giving extra credit for responsive students and parents. We have invited parents to attend events where students are involved (band concerts, German Club and Science Club trip planning, and Book Club cultural events and trips). Summer school has been a time to build bridges into the community through increased parental involvement for these credit recovery students. Sports have always been a big draw for parents, so faculty members intentionally use these events to build relationships with the community and let parents know what is happening at the school. The school continues to honor our unique local culture by attending tribal events whenever possible, and we take pride in our identity.

## **Sustainability**

**How will you sustain the momentum of success?  
District support? Initiatives?**

Clearly, sustaining momentum is the most challenging issue facing us. We are in a new facility which will enhance our present level of course offerings to the students, and will also give us the ability to add more courses as we "grow into" our new facility. As we entered our new facility, we implemented several courses using technology such as e2020 for credit recovery, as well as advanced courses to supplement our small staff and give our students the advantage of choice of challenging courses. We have also implemented the Computing System of SMART LAB to work in conjunction with our Career Clusters. SMART LAB is a research-based hands-on project curriculum which explores a variety of careers. In the rural area in which Dulce is located, this affords our students experiences which they do not have access.

The Dulce Independent School Board has voted to emphasize Technology and Science in the high school arena and will continue to support the efforts to make this a reality. The District envisions Dulce High School to become a model school for others to come for ideas, inspiration, and how-to

-do. Our new Superintendent, Dr. Rose Rooth, is excited about the possibilities and is working hand-in-hand with the DISD Board to make these visions realities.

Our vision includes higher-level classes in core academic subjects, increased career cluster implementation, and moving toward becoming a technology and science related high school.



# Edgewood Elementary School



## School Profile/Demographic Information

Edgewood Elementary in the Moriarty-Edgewood School District was built in 1983 and was first elementary school in Edgewood. We are a Title 1 school serving 305 kindergarten through sixth-grade students from the Edgewood community, which is located in the southwestern corner of Santa Fe County. Many of our families have lived in this area for generations, and we now have students who are children of the first students who attended our school in the early 80's. Edgewood is also home to families who moved to the area for the quiet, semi-rural setting. We serve a socio-economically and culturally diverse population, with over 50% of our students living in poverty. Many of our students come from blended families, and grandparents or other extended family members are raising a number of our students.

We are very proud of meeting Adequate Yearly Progress. The percentage of our 3<sup>rd</sup>-6<sup>th</sup> grade students scoring proficient or above in reading for the 2008-2009 school year was 72.2%, up 4% from the previous year. Fifty-nine percent of our 3<sup>rd</sup>-6<sup>th</sup> grade students scored proficient or above in the 2008-2009 school year, which was a 9.6% growth from the previous year.

### School Mission and Vision

The mission of our school: Learning and success for all...whatever it takes.

Our district's mission and core values: The Moriarty-Edgewood School District, in partnership with our communities, is committed to providing an environment of integrity and respect, empowering students and staff to reach their highest educational potential.

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### Faculty and Staff

The faculty and staff at Edgewood Elementary consist of highly-committed professionals who work to continually improve their own practices in order to meet the demanding and ever changing needs of our students. Several staff members have been working or teaching at our school since it first opened its doors in 1983. Many of our teachers are currently involved in continuing their own educations as they seek master's degrees, Level III licensure, and National Board Certification. Our involvement over the past few years with the Reading First program has helped our Kindergarten through 3<sup>rd</sup> grade teachers to become "highly qualified" in Reading, as they embarked on the mission of completing the course-work necessary for reading endorsement.

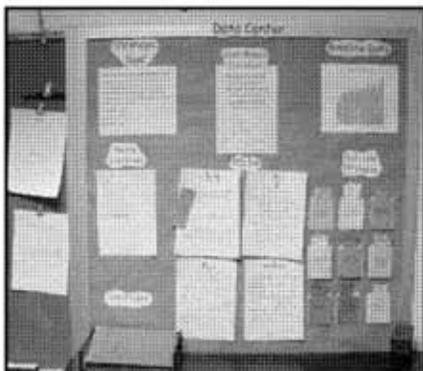
## Ingredients for Success

### What did you do?

As a Reading First school, we dedicated ourselves to the implementation of a scientifically, research-based reading program with explicit and systematic instruction. K-3 teachers use DIBELS, a short-cycle tool used to measure reading readiness and fluency, to help us identify gaps in our kindergarten through 3<sup>rd</sup> graders. For the first few years, only our K-3 grades made this commitment to regular progress monitoring and implementation of the core reading program, but for the past two years, our 4<sup>th</sup> - 6<sup>th</sup> grades followed suit. With all teachers now using the core-reading program, we have seen continuity in instructional practices and fewer gaps in student learning across the grade levels.

Our district is also in its fifth year of implementation of standards-based math programs, *Everyday Math* (K-5), *CMP2* (6-8), and *IMP* (9-12). Our district initiated extensive teacher training in order to support these programs, and the staff are committed to implementing these core programs with fidelity. Our school and district-wide push to providing continuity in programs and curriculum has resulted in increased student achievement.

For the past three years our school been committed to the Continuous Classroom Improvement (CCI) model, a systems approach to learning and school success. With the implementation of CCI



practices we have seen great improvement in student achievement and performance. Our teachers are faithful at regular implementation of the Plan, Do, Study, Act cycle, or PDSA. The PDSA cycle, a system of setting goals (Plan), implementing high-yield strategies (Do), assessment of student learning and evaluation of what worked and what didn't (Study), followed by setting of new goals and actions (Act), occurs on a weekly basis in each classroom. Students have begun to take real ownership of their learning, and have come to understand that their success is based largely on their personal commitment to improving their own learning.

### What worked?

Ongoing professional learning is a huge part of our commitment to continual improvement. Part of our professional learning both as a school and s a district has focused on implementation of high-yield research-based instructional strategies, as well as a repertoire of student engagement strategies.

We are also dedicated to frequent formative assessment of student learning. This occurs in the form of informal weekly assessment of progress toward short-term goals, aimed at long-term strategic goals. To measure student growth throughout the year, we use NWEA, a short-cycle assessment. Students take the NWEA test in the fall, winter, and spring of each year. Individual student goals are set in the fall, as are class and grade-level goals. Growth toward those goals is monitored, and the data is used to differentiate

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instruction. We constantly evaluate our progress as a school, and make data-driven instructional decisions. We are committed to working as a team, in partnership with our students and their families, to bring about success.

**How did you motivate your students and staff?**

At the beginning of the school year, students and their teachers work collaboratively to create classroom mission statements. The students own their mission statements, which serves to motivate and drive actions and learning in their classrooms. Each classroom also employs the use of student data folders. Students use these to set personal goals, to evaluate personal progress and achievement, and to save special work samples. These data folders also act as a great motivator for students as well as an effective communication tool between teachers, students, and their families. Staff members are motivated by the great sense of community and positive culture in our school.

**School Goals?**

We support each other through goal teams. We have goal teams for math and science, literacy, parent involvement, and efficient and effective school operations. All staff participates in at least one goal team. The function of the goal teams is to plan, evaluate, and implement programs, assessment, and other initiatives for their respective areas of focus, always with the school goal of student achievement in mind.

## **Parent and Community Involvement**

**How do school culture and parent/community support and involvement contribute to the success of your school?**

Our school is committed to increasing and improving parental and community involvement. We are working in partnership with the district to improve community relations by promoting attendance and participation in school activities across the district. For instance, our high school's athletic department sponsored each of our elementary schools at a home football game this fall. Moriarty High School provided elementary students with free tickets to a game and recognized each elementary school at the game. We celebrated MESD spirit for the entire week of the game to prepare to "Pack the Stands," our campaign for building MESD spirit. We had a different theme for each day of the week to keep students and families thinking about school spirit. Our very active PTO gave a free EES T-shirt to each and every EES student. We also held a pep rally at the end of the day, including a shopping cart parade and spirit cheers to prepare for the football game. It was exciting! It is opportunities like this that help build relationships within our community, and ultimately add to student success.

Additionally, we hold two literacy nights each year, as well as Math and Science Nights. These events provide us with the opportunity to bring families together in a way that focuses on student learning, but also provides an evening of entertainment for families. Our Parent Involvement goal team publishes a monthly newsletter to keep families informed of various events and school happenings. Another aspect of community involvement is our new campaign toward recognition of our community partnerships with local businesses and organizations. Each school in the district has taken specific measures toward recognizing their generosity and support.

## **Sustainability**

### **How will you sustain the momentum of success?**

We will sustain the momentum of our success by never being satisfied, always working to achieve higher and higher. Our strong sense of community and partnership and our dedication to our students and their families will help us sustain our momentum of student success and achievement. We will not be complacent as we continue our endeavors toward ongoing professional learning, specifically in the area of Continuous Classroom Improvement practices and student engagement.

### **District support?**

The Moriarty-Edgewood School District's commitment to achievement of each students' highest potential will help our school continue its dedication, enthusiasm, and perseverance toward excellence.

# Jefferson Elementary School

Lovington, New Mexico



## School Profile/Demographic Information

School Mission and Vision  
Faculty and Staff  
Student demographics

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**Our team!  
CSI:  
Continuous School  
Improvement  
Lovington**

The Mission of Jefferson Elementary is to provide a safe learning environment with data-driven instruction in order to present authentic learning opportunities that meet the individual needs of all students.

Jefferson is a third -grade level school. We are a Title 1 school with 78% Hispanic, 80% economically disadvantaged, and 36% English language learners.

During the 2008-2009 school year, we had 228 third graders and 10 regular education teachers. Spanish is taught for half of the day in our two dual language classes, where our support staff includes our wonderful secretary, two reading intervention teachers, reading coach, librarian, computer teacher, counselor, speech therapist, and occupational therapist, physical therapist and janitors. We involve *everyone* in our day-to-day activities.

## Community Aspects

southeast corner of New

**Historical, cultural or geographic  
highlights of the community**

Lovington is located in the Mexico. We are only 30 miles

from the Texas border. Lovington was established at the turn of the century. From the time of its establishment, Lovington was primarily a ranching and farming center. Oil was discovered in 1928, but did not have a significant impact on the economy until 1950. The subsequent oil development shaped the economy, labor force, and life style of present day Lovington.

Lovington's climate, like much of eastern New Mexico and western Texas, is characterized by warm summer days, cool nights, and mild sunny winters. The summer months have average maximum temperatures in the high 90s, cooling down to the 60s at night while the daytime maximums in the winter range from the 50s to 60s.



## Ingredients for Success

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**What did you do? What worked?  
How did you motivate your students and staff? School Goals? Incentives?**

The students are the heart of our school. Jefferson teachers focus on goals created by our student performance data that drive our classroom instruction.

### **Our key ingredients are as follows:**

- \* Staff created mission statement
- \* Curriculum aligned to New Mexico Standards and Benchmarks
- \* Whole staff training, new teacher training, and classroom modeling by school site coach
- \* Regular training updates on curriculum adjustments
- \* Data-Driven instruction (analysis of student data to drive instruction)
  - \* Use of DIBELS, NWEA, weekly assessments, unit assessments
  - \* Development and implementation of EPSS goals based on data
  - \* Utilization of school goal teams to analyze and have conversations based on data
  - \* Curriculum decisions and adjustments are based on data
  - \* Continuous school improvement through alignment of all curriculum
- \* School goal teams provide all staff with continued building professional development on a consistent basis.
- \* School -wide implementation of paced reading and math curriculum adjusted to meet and address all the standards and benchmarks before the New Mexico Standards Based Assessment
- \* School wide reading programs that promote parent and community involvement.
- \* Celebrations for student, class, and school accomplishments
- \* Strong learning community willing to do whatever it takes to help all students succeed.

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## Parent and Community Involvement

**How do school culture and parent/community support and involvement contribute to the success of your school?**

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We have worked at bringing community awareness to our students, as well as bringing the community into our school. We have developed "Growing a Community of Readers" where once a month each classroom has a community person to read to our students. Many of these readers are also parents of students.

We developed a strong after-school tutoring program which concentrated mainly in math. We targeted our "bubble" students.

Every teacher makes 12 positive contacts each nine weeks to let parents know positive attributes about their child. We also have parent conferences, back to school night, and school wide participation in community events such as Farm Safety Day and Homecoming Parade.

We emphasize the importance of being at school, being on time, and being prepared for school.

## Sustainability

**How will you sustain the momentum of success? District support? Initiatives?**

We are keeping the students at the heart of everything we do. We believe that fidelity to our programs is a key to success. We continually look at

data to drive our instruction. We are also working hard at increasing the opportunities for parental involvement in school wide activities.

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# Lea Elementary School

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## School Profile/Demographic Information

**Our vision:** *We are what we repeatedly do. Excellence, then, is not an act, but a habit.*  
-Aristotle

**Our mission:** *Lea Elementary strives to be...*

*Inviting, Diverse, Exciting, Passionate, Positive, United, High Energy, Focused, Understanding,  
Supportive, Helpful, Compassionate, and Fun  
for  
our students, our parents, our community, our families, ourselves, and each other  
while instilling  
a love for learning in our children, encouraging all children to achieve their highest potential*

### Faculty, Staff, and Student demographics

Lovington Municipal School District includes 10 campuses. Students in the elementary grades attend grade level schools. Lea Elementary enrolls about 245 first graders each year. Pam Quinones, Principal, leads a dedicated staff of 28 professionals—14 first grade teachers, including 3 dual language teachers, 1 special education teacher, one music teacher, 2 reading intervention teachers, 1 literacy coach, 1 secretary, and 5 instructional assistants. Our student population averages 75% Hispanic, 23% Caucasian, and 2% other ethnicities.

## Community Aspects

### Historical, cultural or Geographic highlights of the community

Lovington was established in the early twentieth century in the southeastern corner of the Land of Enchantment. It serves as the county seat of Lea County. Robert Florence Love envisioned a town where his homestead was located and is the present-day site of Lovington. The post office was established September 12, 1908.



From the time of its establishment, Lovington was primarily a ranching and farming center. Farmers and ranchers who came to the area faced lean years with drought and isolation, until irrigation farming advanced the economy.

Oil was discovered in 1928, but it did not have a significant impact on the economy until 1950 when the Denton pool, located nine miles northeast of

Lovington, was discovered. In a short time, the Denton pool had 92 flowing wells and, along with subsequent oil development, shaped the economy, labor force, and life style of present day Lovington. Only recently has the dairy industry begun to take part in our growth.



Today, with a population of 9,800, located on U.S. Highway 82, and 18 miles from the Texas border, Lovington is a friendly and progressive place to live. Highway greeting signs display our motto: *Lovington, Make It Happen!* At 3,934 feet elevation the climate is dry with warm, sunny days, and cool nights. It has mild winters with an average rainfall of 14–15 inches.

## Ingredients for Success

### What did you do? What worked?

**Five-Year Plan**—Pam Quinones, Principal, came to Lea Elementary in 2005. She began to implement a five-year plan to improve teaching strategies and challenge first graders in reading, writing, and math. Short- and long-term goals were set to increase scores in these areas. As a New Mexico Reading First School, the district hired literacy coaches, including Virginia Hurse, who began work at Lea Elementary in 2005. Teams were developed, trained, and empowered to take ownership of the changes in our reading and math programs.

**Data Analysis**—One major component of the five-year plan was an emphasis on data analysis. Three questions guide our study: 1) *What is the data telling us?* 2) *What is the data not saying to us?* 3) *What can be celebrated?* This in-depth analysis helps us to highlight our strengths and categorize our needs. Schedules are prioritized to include 90 minutes of uninterrupted reading, 60 minutes for writing, and 60 minutes for math. Data analysis guides our classroom instruction.

**Goal Setting**—Teachers monitor their use of high-yield teaching strategies. Building-wide goals are set to motivate students, parents, and teachers. Our Reading Team created a pacing guide to integrate strengths of our Scott Foresman basal reading program, Saxon Phonics, and spelling programs. Our Math Team created a math notebook to enhance and strengthen our *Math Investigations* program.

**How did you motivate your students and staff?**

**Teamwork**—Teamwork is a contributing factor to motivation. Built into our schedule is a weekly “Meeting of the Minds.” Our staff comes together to celebrate our successes, examine DIBELS data, develop plans for both individuals and small groups of students, and challenge our teachers. Meetings are led by Pam Quinones, Principal, Virginia Hurse, literacy coach, and math or reading team leaders.

**Professional Development**—The weekly meetings also include professional development for our staff in specific areas of need. We train teachers to use Robert Marzano’s nine high-yield strategies. Teaching strategies for English Language Learners (and all students are ELLs) comes from *A+Rise, An Instructional Strategy Guide for Classroom Teachers*, by Evelyn Arroya. Teachers are trained extensively in *The Student Assistance Team (SAT) and the Three-Tiered Model of Student Intervention* which serves as New Mexico’s Response to Intervention (Rti) framework.

**Mentoring Program**—Though we have a low teacher turnover, new teachers coming to Lea Elementary experience strong support through our mentoring program. The *Lea Elementary Mentoring Notebook* has proven most helpful for both mentors and new staff.

**Vertical Teaming**—Vertical teaming has also strengthened our school. In 2007 we began sharing our literacy coach with Lovington’s second grade campus, Ben Alexander. Her work with both schools raised expectations for students. Together with Ben Alexander, we provide our new teachers with in-depth training on the big five ideas of reading. Every year new teachers express gratitude for this invaluable teamwork.

**What incentives did you use to encourage students?**

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**Learning Environment**—First graders are excited learners. Learning to read is a great incentive. Therefore, we create learning environments where our students feel they are readers, writers, and mathematicians.

**“Read to the Principal”**—During the second semester Mrs. Quinones holds a “Read to the Principal” campaign. Every student reads to her and their name is placed on a hallway display. Parents receive a post card praising their child’s growth in reading.

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**Perfect Attendance**—Lea Elementary recognizes the importance of being in school. Students with perfect attendance are honored each month, each semester, and for the entire year. These students receive awards, have their pictures published in the local newspaper, and are recognized at the end of the year awards assembly.

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*Lea Little Cats*—Positive atmosphere is expected daily through our emphasis on good manners and courteous behavior. “Respect” is emphasized everyday through morning announcements. Each month every classroom chooses one student who exemplifies the positive character traits. These students become our “Lea Little Cats”. They are interviewed, their pictures are placed on a hallway display, published in the local newspaper, and they are honored at the end of the year awards assembly.

## Parent and Community Involvement

**How do school culture and parent/community support and involvement contribute to the success of your school?**

gives every child a Lea Elementary yearbook. They provide every student with a “Lea Little Cats” t-shirt and a book on each student’s reading level as a Christmas gift. Classrooms have a parent who volunteers time and energy for weekly activities. PTO maintains a hallway bulletin board used for highlighting student activities. They also support and provide for our special days of learning. These “Around the World” activities include Cowboy Days, A Taste of Christmas, Dr. Seuss, Science, and End of Year DIBELS celebration.

*Parent Teacher Organization*—Our Parent Teacher Organization (PTO) is involved in weekly activities that excite and encourage our first graders. The PTO produces and

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*Donations*—**Lea County Electric Cooperative** and **Kiwanis** donate prizes for our “Parent Reading and Math Nights.” **Halsell Family Chiropractic Center** contributes school supplies, backpacks, and “Lea Little Cats” t-shirts. **NAPA Auto** also contributes to the t-shirt fund. Our students give back to the community through donations at Thanksgiving. Partnering with the Lovington Wildcat Football Team, students collect donations to buy turkeys and pies for needy families at Thanksgiving. Our students also contribute canned goods to the local Boy Scout Food Drive.

### *Parent Education*

Throughout the year special nights are held for parent education. During our “Parent Reading Night” parents learn about reading strategies and ways to help their children at home. Our “Parent Math Night” provides parents the opportunity to investigate math skills. Weekly classroom newsletters , as well as our school web-site keep parents informed.

Reading Team leaders, Patti DeAnda and BJ Roberts share reading strategies with parents at Parent Reading Night

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## Sustainability

### How will you sustain the momentum of success?

Principal Pam Quinones challenges each staff member with words from John Powell, S.J.—*You have a unique message to deliver, a unique song to sing, a unique act of love to bestow. This message, this song, and this act of love have been entrusted exclusively to the one and only YOU!*

Our five-year plan continues to direct us at Lea Elementary. Our goals change as we attain success and raise our expectations even higher. We challenge our teachers to move from their comfort zones and use current research based teaching strategies. Professional development will continue to be a priority. As our teachers become more proficient, our students become better readers, writers, and mathematicians. We will offer “Parent Education Nights” because educating our parents will contribute to our growth.

### How will your district support continued success?

District support is vital to the sustainability of our success. Evelyn Arroyo, author and trainer for *A+Rise, Research-Based Instructional Strategies for ELLs*, spent three years working with out school sites. The district provides funding for our literacy coach and intervention teachers. When full-day professional development is held, our district provides funds for substitute teachers.

# Llano Elementary School

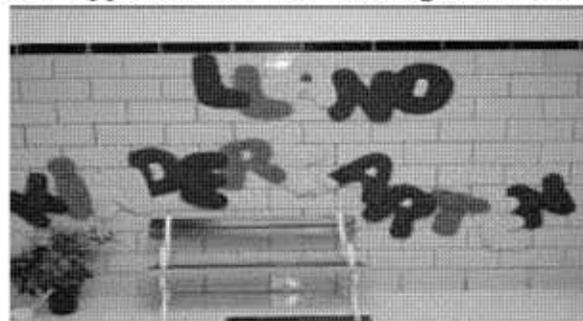
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## School Profile/Demographic Information

### School Mission and Vision Faculty and Staff Student demographics

The mission of Llano Elementary School is to provide an early literacy readiness program that includes opportunities for kindergarten and preschool students to reach their fullest potential.

Llano Elementary is comprised of nine preschool classrooms, which have incorporated Creative Curriculum. This is a program that is age appropriate and great for language development.



There are 15 kindergarten classrooms, 4 of which are dual language. There are 10 full classrooms of 20 students with an instructional assistant, and 5 are comprised of 14 students with a certified teacher only. There are a total of 98 staff members and approximately 589 students.

## Community Aspects

### Historical, cultural or geographic highlights of the community

Lovington is located in the southeast corner of New Mexico. We are only 30 miles from the Texas border. Lovington was established at the turn of the century. From the time of its establishment, Lovington was primarily a ranching and farming center. Oil was discovered in 1928 but did not have a significant impact on the economy until 1950. The subsequent oil development shaped the economy, labor force, and life style of present day Lovington.

Lovington's climate, like much of eastern New Mexico and western Texas, is characterized by warm summer days, cool nights and mild sunny winters. The summer months have average maximum temperatures in the high 90s cooling down to the 60s at night while the daytime maximums in the winter range from the 50s to 60s.

Lovington fosters a huge pride in its athletic programs which are supported by both school and community.

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## Ingredients for Success

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**What did you do? What worked?  
How did you motivate your students and staff?  
School Goals? Incentives?**

The Lovington Schools were a part of the state's Reading First Initiative for five years. Our teachers received a tremendous amount of training and support in the area of reading instruction. Our district was very supportive also, and made up for any need that was

not met. All of our schools worked together on this to make the transitions from building to building a positive experience, coupled with success.

For math we have adopted *Investigations Math*, and have seen the students begin to understand math concepts. The kindergarten in the base that all instruction is built on, so if we can provide the solid ground work, the following grades will be able to build on what we have established.

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Llano Elementary has developed a school-wide behavior plan that is based on the Positive Behavior Support model. This has made a huge improvement in our student's behavior. When they are motivated to behave in a proper manner, they are more focused and able to attend to the instruction which is being delivered to them.

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## Parent and Community Involvement

**How do school culture and parent/community support and involvement contribute to the success of your school?**

The staff at Llano Elementary works hard to create a positive atmosphere. We want the children to have a good experience for their first year of school. We believe that if we can insure that they love school they will learn.

Llano Elementary has a very active PTO group. They are very willing to help out with all school activities. This provides our parents a way to have input and be a part of their children's education. They feel invited and able to participate in all aspects of their child's school day. This frees our teachers from a lot of the preparations for these activities and able to concentrate on instructional activities.

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As a part of our school-wide behavior plan, the *Proud Panda* has been adopted. This school mascot is the focus of our school rules. Every month the children are rewarded with a Panda Party which is funded by our PTO group.

## Sustainability

**How will you sustain the momentum of success?  
District support?  
Initiatives?**

The Lovington School District has been extremely supportive in all our endeavors. They have picked up the financial support of our intervention specialists up to this point. They have recognized the success we have experienced and are willing to do all that they possibly can to help us maintain. We realize that some of these benefits may not be able to be sustained, but we feel confident that our teachers will pick up the slack, and provide the extra help that our children need in order to be successful.

When we add new teachers who have not had the specialized training provided by Reading First, our staff is willing to teach them the strategies. By providing time for them to observe and share ideas and experiences, our staff has become their coaches. We are able to sustain the valuable information we obtained, and able to continue the growth and success we have witnessed.

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# LOVING HIGH SCHOOL FALCONS

## School Profile/Demographic Information

**School Mission Statement:** Loving High School will educate and serve the community and its students by inspiring them through discovery and high academic standards.

**School Vision Statement:** To create an environment that challenges and develops students to succeed in life's endeavors and compete in a global economy.

Loving High School is a public comprehensive institution of learning program located in Loving, New Mexico. We believe that the mission of Loving High School defines its educational purpose and supports the educational mission of Loving Municipal Schools.

### CLASS OF 2009

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**Faculty and Staff**

Teachers at Loving High School are recruited based on student and program need. The teacher's educational philosophy and cultural insight must be compatible with the goals of the district. As new teachers enter the educational system at Loving High School, they are provided/assigned a mentor. The new hire and mentor follow a strategic mentor document that is intended to help with the transition into our school and the classroom. Teacher support is provided at the site and district level. Loving High School has a total of 18 faculty, 1 Instructional Assistant, and 2 staff members.

**Student demographics: 2009-2010**

9 <sup>th</sup>		10 <sup>th</sup>		11 <sup>th</sup>		12 <sup>th</sup>	
Hispanic	42	Hispanic	42	Hispanic	27	Hispanic	30
Caucasian	14	Caucasian	12	Caucasian	7	Caucasian	6
Black	0	Black	1	Black	0	Black	1
Male	27	Male	31	Male	17	Male	10
Female	29	Female	24	Female	17	Female	27

**Community Aspects****Historical, cultural or geographic highlights of the community**

The Loving Municipal School District was created from the former Eddy County Rural School District 10 as part of the general state wide consolidation movement of the 1940's and 1950's. On June 5, 1950, a bond issue was passed by voters of Loving to build a junior high school in order to accommodate a ninth grade. July 1, 1950, marked the beginning of Loving's first budget year as an independent district.

On June 24, 1964, the voters of Loving passed a bond issue for construction to extend the Loving Schools through the 10<sup>th</sup> grade, with the expressed intention of adding grades 11 and 12, as soon thereafter as feasible. The application for change of attendance was denied by the State Department of Education. As such, the Loving School Board was compelled to decide not to issue the bonds.

In November of 1986, Superintendent David Chavez, acting for the Loving Municipal School Board, sent a formal request for approval of the reorganization plan to Mr. Alan Morgan, State Superintendent of Public Instruction. The plan was based on the desires of the Loving community to reduce the high incidence of drop outs in grades 10 to 12. Students were dropping out at an average of 32% over the five years preceding the request for reorganization. In a letter addressed to Mr. David Chavez dated February 15, 1989, Mr. Alan Morgan gave permission to the Loving Municipal School District to reorganize and include grades 10 to 12.

## Loving Elementary School

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## Loving High School



## Ingredients for Success

### What worked?

In an effort to establish and build understanding of our vision statement, Loving High School strives to support the mission of the district of challenging all students to meet their potential in an ever changing society.

Additionally, Loving High School's leadership understands the importance of viewing our educational environment in a holistic way. This undertaking allows leaders a broader framework to analyze difficult and/or complex academic problems within our school. By addressing the academic culture of our school we are able to shape and mold values, beliefs and attitudes to promote an educational environment conducive to learning. The development, practice, and

continuous monitoring of our Educational Plan for Student Success allows us the opportunity to showcase our commitment to establishing goals of graduating students that are responsible, caring, educated, and productive citizens.

### **Restructured the High School Experience**

We follow the **High Schools That Work** continuous improvement framework that includes the 10 key practices:

- \* High Expectations
- \* Career Technical Studies
- \* Academic Studies
- \* Program of Study
- \* Work-Base Learning
- \* Teachers Working Together
- \* Student actively engaged
- \* Extra Help
- \* Guidance
- \* Keeping Score

**How did you motivate your students and staff?**

Loving High Schools Conceptual Framework correlates with the organizational ideology of a strong school culture of developing increased student achievement. Scholars at Loving High School realize that healthy and sound school culture correlate with increased student achievement and motivation. Thus the development, articulation and dissemination of an institutional report is shared and practiced on an annual base. Pictured below are students presenting Program of Studies

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**Entrepreneurship**

**Entrepreneurship Presentations**

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### Health Science Presentation to Parents

### Science Technology Engineering & Mathematics

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#### School Goals

Loving High School is committed to a long-term effort that focuses on strategic plans for continuous systemic school improvement for its students. Students are the center of the educational process and our institution is structured to assist in their intellectual endeavors. Pedagogy at Loving High School stresses dialogues and debates among students and teachers in an attempt to foster all stakeholders in learning through teaching practices.

Process to achieve student academic growth:

- \* Relationships—Staff, Students, Parents/Community
- \* Collaboration—Developing, Maintaining, & Strengthening Communication
- \* Strategic Planning—Data Driven Decision Making & Implementation Strategies
- \* Positive School Climate— High Expectations, Accountability, & Student Achievement
- \* Understanding of the stated purpose by Loving High School constituencies
- \* Developing educational partners— Matrix for shared course offerings

#### Incentives

Students have an opportunity to take college level course work beginning in the 9<sup>th</sup> grade year through dual enrollment. There are 137 students grade 9 to 12 dually enrolled in classes at Loving High School.

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**Planning**

**Student Success and 21<sup>st</sup> Century  
Skill Development**

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In partnership with Microsoft, NMSU-C, Habitat for Humanity, and Local Businesses, Loving High School students held a ribbon cutting ceremony on November 13, 2009, for its first house built.

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**Loving High School CNA Students**

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## **Parent and Community Involvement**

A number of opportunities exist for stakeholders to provide leadership, to contribute to the decision making process and to participate in the continuous improvement process. At the systems level there are six primary groups identified to continually evaluate Loving High Schools effectiveness and student performance: Leadership Team, Evaluation Team, Curriculum Team, Guidance Team, Transition Team, and Professional Development Team. One additional group, Site Advisory Council, also plays a very important role in our decision making process.

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## **Sustainability**

Institutions of learning such as Loving High School do not exist in a vacuum. We realize that each student comes to our doors with differences that require attention. An institution's character can contribute to a positive climate for student learning. As such, Loving High School employs a multifaceted system that both captures and accounts for ensuring that the vision and purpose of our school remain current and aligned with school and community expectations for student academic growth. This system incorporates quality indicators such as attendance, dropout rates, state/district testing, quarterly academic reviews, and analysis toward identified benchmarks.

At the heart of achievement for all students is the quality of curriculum, instruction, and assessment. Staff at Loving High School is exposed to on-going professional development

opportunities based on institutional research. We also understand the relationship of effective implementation and student achievement. In an effort to facilitate and nurture growth, Loving High School staff participates in Peer-to-Peer collaboration and classroom visitation with documentation on a Learning Pyramid Chart.

**District support**

The process of effective operation of schools begins with the Loving Municipal Schools Superintendent and School Board of Education. It is understood by all leaders that the Board of Education is the policy making body for the school system. Thus Loving High system leaders ensure that policies, procedures, and organizational conditions provide equitable learning opportunities for all students.



**Initiatives**

High Schools that Work (HSTW), and Making Middle Grades Work (MMGW), are the largest and oldest of the Southern Regional Education Board's school improvement initiatives for high school and middle grades leaders and teachers. More than 1,200 *HSTW* sites in 31 states are using the framework of HSTW Goals and Key Practices to raise student achievement. Loving High School was one of the original pilot schools to join this initiative. These initiatives are joined in their goal to prepare students for careers and further education by improving curriculum and instruction in high schools and middle grades. Southern Regional Education Board (SREB) and an initial group of state partners launched High Schools That Work in 1987. Through the years, the work has taken on new dimensions as needs have arisen in the areas of middle grades education, transition from middle grades to high school, raising performance in low-performing schools, and raising standards in career/technical education.

Loving High School has identified seven Career Pathways and eight Programs of Study aligned to the HSTW initiative. Students are able to earn Dual Credit and/or certifications as they progress through their self selected Program of Study. This present year 2009-2010 we have 75% of our students taking dual credit courses.

**Student presenting at  
National Career Clusters**

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**Student Panel answering questions  
at National Career Clusters**

*Loving High School--Redesigning the High School Experience For  
College and Career Readiness*



# Mora High School

## School Profile/Demographic Information

*We must be willing to change what we do in our classrooms so students can grow – not hope that students can grow so we don't have to change what we do in our classrooms. –Todd Whitaker*

### School Mission and Vision

**Mission:** The Mora High School is dedicated to providing an opportunity for student success in academic achievement and the skills to become life-long learners and responsible citizens.

**Vision:** It is our vision that we will provide our students with the best instructors, best practices, and best academic programs in a facility that is pleasant, safe, and committed to 21<sup>st</sup> century learning.



### Faculty and Staff

15 teachers: 5 male, 10 female
1 Guidance Counselor
.5 Records & Data Entry
1 Secretary
1 Truancy Officer
1 Resource Officer
1 Principal

Student Demographics	#of students	Ethnicity	#
9 <sup>th</sup> grade	45	Hispanic	158
10 <sup>th</sup> grade	39	Other	4
11 <sup>th</sup> grade	46	Male	72
12 <sup>th</sup> grade	32	Female	90
Total	162		

## Community Aspects



### Historical, cultural or geographic highlights of the community

Mora is a gateway from the plains of Midwestern Northern America, through the Rio Grande Valley of New Mexico to the western states. The Mora Valley was a gathering place and passageway for the Plains Indians, Pueblo Indians, and Ancestral Pueblo Peoples, visited by the Aztecs, Mayan, Spaniards, Hispanics, French, English, Jews, and Americanos. Mora is a corridor of time and culture alive today with a new intermingling of peoples; the heritage and land still preserved in beauty and tradition.

Mora, New Mexico, destination of trails leading from the East and Midwest of North American, South and Central America, Mexico, Spain, Portugal, France, the British Isles, even Siberia, is historically and culturally an ancient map of cultural exchange and blending of peoples. Reaching back through 25,000 years of history, Northern New Mexico is a geological, genealogical, cultural and historical legacy of our North American continent.

As the dominate European cultures swept across North America both the indigenous Native American and Hispanic peoples suffered losses in military conflicts, loss of languages, redirection of communal lands, and decimation of a once prosperous economy. Today, the villages in Mora are still recovering and exploring ways to revitalize a sustainable economy through agriculture, cooperatives to process and market foods that are grown in the region, and developing clean businesses such as media production.

*Corridors of Culture* is a documentary film dedicated to the spirit of the people of Mora, honoring lineage, language, history, and the land. The film covers the past treasures and wounds; the present challenges and revitalization; and the future visions for a healthy and prosperous life for the people and natural world where the mountains meet the plains.

Still speaking the dialect of Castilian Spanish of the 15<sup>th</sup> Century and still honoring the community Mexican Land Grant values of stewardship of the land and sharing its bounty, the people, land and culture of this small rural community is a living treasure. The traditional farming, forestry,

raising livestock, wild-crafting herbs, natural medicine, the making of adobe (natural) homes, woodworking, crafts, religious traditions, native foods, and loyalty to family and community are woven deeply into the fabric of daily life even to this day. Not glamorous or apparently wealthy, but rich in connection to family and neighbors, the earth, the water, the animals, and the beautiful life that is Mora.

*Corridors of Culture* intends to portray the story of Mora’s unique history and culture through images, archival documents and maps, interviews with historians and geologists, linguistic studies, stories from the elders, aerial views of ancient trails, and visions of the future from the young and old. Congruent with the 175<sup>th</sup> Anniversary of the Mora Land Grant (October 2010), *Corridors of Culture* celebrates the cultural heritage of Mora. In reflecting this rich and expansive lineage, our intention is to empower the spirit of the Mora community, enrich the pride and proactive motivation to preserve, regenerate and revitalize the sustainable practices that worked for hundreds of years and are still applicable today, as well as embrace modern practices that sustain the environment.

Tracing the roots of the Mora people, we hope to open up these ancient trade routes to share our cultures again, our best practices for sustainable living on the land, expanding our educational and economic opportunities and opening to new vistas of learning. Today, Mora's economic activity centers on its natural resources. Logging, farming and ranching predominate. Hunting, fishing and tourism is a growing business and Mora is home to several outfitters offering hunting and fishing trips into the mountains. Mora is also home to the Mora National Fish Hatchery and Technology Center whose mission is the preservation of endangered fish species, and the Mora Research Center, a New Mexico State University Research center for forest genetics and conservation.

<b>2007 CENSUS</b>
Population: 3,929
Male: 1,964
Female: 1,965
Resident Median Age: 39.1 Years
Estimated Median Household Income: \$33,908
Estimated Median Home Value: \$144,784
Population Density: 7.7 People per Square Mile

<b>Resident Ethnic Breakdown</b>
Hispanic: 85.4%
Other: 14.6%
<b>Education</b>
High School or Higher: 69.6%
Bachelor's Degree or Higher: 14.6%
Graduate or Professional Degree: 9.0%

## Ingredients for Success

### What did you do? What worked?

The evidence of success is testimony to the great things that take place at our school. We believe the combination of good teaching, leadership, high standards, pupils' hard work, and the close ties that we have with our parents are the characteristics of a great school. From research to action plans, we have established several approaches to success including:

- \* Learning Skills class meets daily from 9:00-9:25 a.m. on Mondays; Math problem of the week with academic vocabulary, Tuesday, Wednesday, and Thursday; sustained silent reading, and Friday; Step up to Writing® activity
- \* Aligned curriculum, instructional methodology, and assessment practices
- \* Established Professional Learning Communities (Dufour and Eaker model) for our teaching staff.
- \* Meet weekly on Wednesday by department during teacher preparation period for staff development including:
  - Literacy
  - Marzano and Pickering: *Building Background Knowledge*
  - Marzano and Pickering: *Building Academic Vocabulary*
  - Marzano and Pickering: *Classroom Instruction That Works, Data Analysis*
  - MAP short cycle assessment: DesCartes / Continuum Classroom Management and Discipline
  - Curwin and Medler: *Discipline with Dignity*
  - Curwin and Medler: *What to Do When...*
  - Curwin and Medler: *Strategies for Successful Classroom Management Instruction*
  - Adhere to Madeline Hunter Method for Direct Instruction
  - Differentiated Instruction that conforms to the 21<sup>st</sup> Century classroom and standards-based instruction.
  - Participate in Harry Wong's *The Effective Teacher Series*

### How did you motivate your students and staff?

*Celebration + Appreciation = Motivation.* However, as a professional disposition, the commitment to one's vocation and honoring professional ethical standards is paramount.

The building of enthusiasm and pride through relevant, challenging, engaging, and instructive activities along with a sense of responsibility in learners and teachers, promotes motivation. Furthermore, enhancing and reinforcing a students' self confidence will motivate students to participate in the learning process which is rewarding to both the student and the instructor.

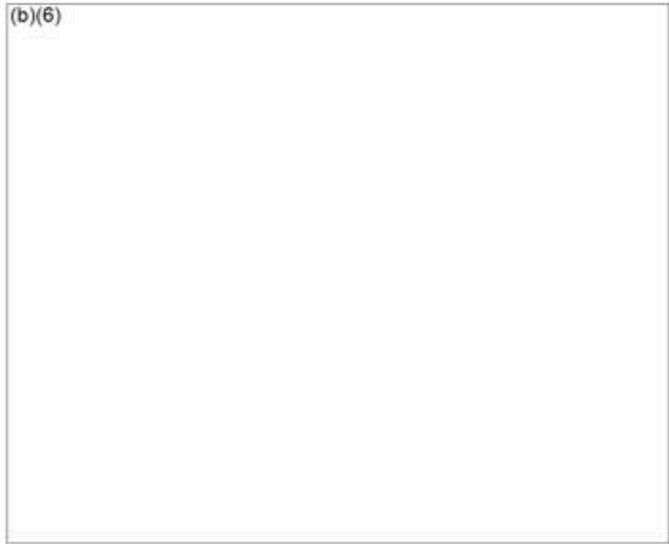
But, perhaps the greatest factor in promoting motivation for both staff and students is the creation of a culture of beliefs and values where the student is the center of the learning community. Great teaching makes great students.

*I want to do it because I want to do it.*

— Amelia Earhart

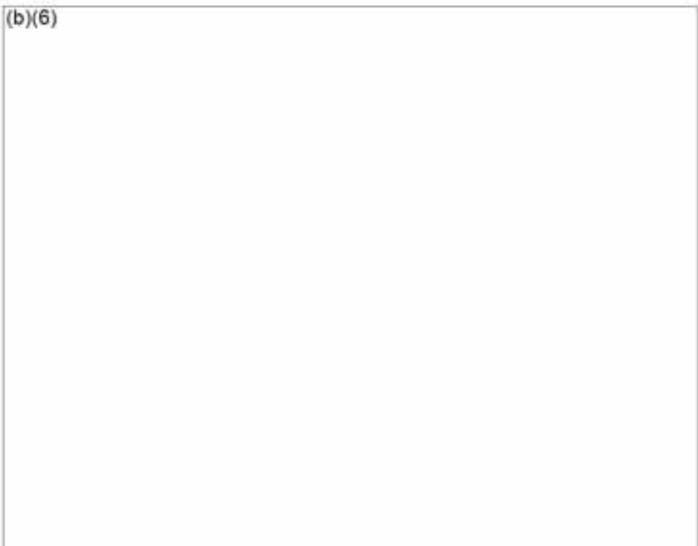
**School EPSS Goals**

- \* The percentage of students scoring "PROFICIENT" in MATH will increase by 10 percentage points from 40.5% to 50.5% as measured by NMSBA.
- \* The percentage of students scoring "PROFICIENT" in READING will increase by 10 percentage points from 62.2% to 72.2% as measured by NMSBA.
- \* The percentage of families participating in school-wide activities will increase by 6% from 54% to 60% as measured by parent sign-in sheets.



**Incentives?**

Students are asked to try their hardest on SBA and MAP assessments. Junior students who demonstrate progress by increasing proficiency, or reach a Proficient score by the end of their Junior year, are excluded from MAP short-cycle assessment(s) during their Senior year.



## Parent and Community Involvement

**How do school culture and parent/community support and involvement contribute to the success of your school?**

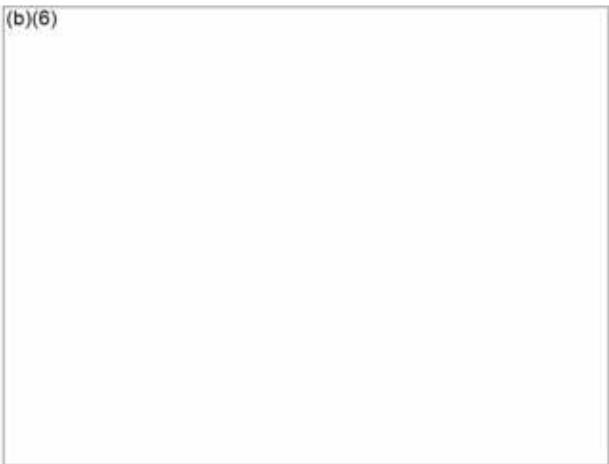
They all do! To guide collaborative efforts (even though our school does not currently include an organized PTA), our school has embraced the PTA National Standards for Family-School Partnerships as follows:

- \* Welcoming all families into the school community: active participants in the life of the school
- \* Communicating effectively: engage in regular, meaningful communication
- \* Supporting student success: support students' learning and healthy development
- \* Speaking up for every child: Families are empowered to be advocates for their own and other children
- \* Sharing power: Families and school staff are equal partners in decisions affecting students
- \* Collaborating with community: expanded learning opportunities, community services, and civic participation.

Rural communities differ from urban communities, and they also differ from one another. In as much as a rural designation, small school size also affects educational capacity. In our circumstances, our school is both rural and small in size. Therefore, linking community activities to the classroom is almost mandatory, which includes providing our rural youth with access to a 21<sup>st</sup> Century education, affording them an opportunity to access current technology, and uniting together across socioeconomic, geographic, and racial barriers to optimize potential that impacts their families, schools, and communities.

Additionally, our partnerships with colleges and universities offers students a variety of college courses through distance learning, on campus and on-line which have been approved by the Mora Independent School District and accepted at all New Mexico Higher Education colleges and universities, and most other public colleges and universities throughout the United States. This opportunity provides our students the prospect to acquire an Associate degree through Luna Community college in General Education (core classes) by high school graduation date.

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## Sustainability

### How will you sustain The momentum of success?

Sustainability is the relationship between many factors that are constantly changing. To that end, the principal meets weekly with teaching staff during their Preparation Period (45 to 50 minutes) for collaboration; this being the moral fiber of our Professional Learning Communities. Within this domain, we identify our guiding principles and develop action plans which give direction to teaching and learning. Activities and discussions relative to curriculum, instruction, and assessment set precedence.

Through integrated thematic activities, enrichment intersects with academics at Mora High School. Activities fundamentally designed to promote discovery learning opportunities offer the broadest range of services, as demonstrated through our successes, and infuse content learning in activities such as gardening; health and wellness; technology-related projects; cultural arts and crafts; field trips; and sports and recreation. The academic programming templates at Mora High School are also intended to be living documents—changing based on emerging needs and interests.

### District Support?

The Mora Independent School District (MISD) believes that the environment we create to nurture the continuous success of our students depends on our ability to promote academic creativity and freedom, provide the necessary resources to effectively develop meaningful curriculum that incorporates cultural influences and available technologies, encourage the professional development of our faculty and staff, and promote the continuous growth of ideas. This environment must also allow for the creation of collaborative relationships that encourage a sense of community and belonging and understanding the importance of the various levels of student development including their emotional, mental, and physical wellbeing.

### Initiatives?

The MISD through the leadership of the Mora High School and District's Office of Institutional Support and Advancement, is actively participating in *Visiones Colaborativas*, a group of diverse grassroots educational, advocacy and service organizations that facilitates networks, collaborations, outreach and capacity building for sustainable economic development that reflects the agricultural integrity of Mora County. *Visiones Colaborativas* (Collaborative Visions) promotes sustainability among its members, and through its guidelines and practices.

We seek opportunities to collaborate with public and private organizations that foster the goal of a more sustainable agriculture in Mora County, New Mexico and the world, reversing the many farming practices and public policies that harm the environment, impair human health, and undermine food security, family farms, and the social and economic well-being of our community.

### **Mora Independent School District Sustainable Agriculture and Alternative Energy Facility**

The Mora ISD Sustainable Agriculture and Alternative Energy Facility, a partnership between the District and *Visiones Colaborativas*, is currently designing a four-acre facility and curriculum created to promote the dissemination of scientific and technical information that will facilitate sustainable agricultural practices and systems among producers, consumers, policy makers,

economic planners, health professionals, and environmental organizations. The SAAEF Project has established the following objectives:

1. Establish a sustainable agriculture research and demonstration site at the Mora School District
2. Strengthen and sustain research and educational activities to promote sustainable agriculture and protect the environment
3. Improving the exchange of practical and scientific information for farmers seeking specific techniques and farming systems that they can use to significantly reduce and ultimately eliminate their dependence on ecologically harmful practices, and to conserve non-renewable resources
4. Facilitate the exchange of production and marketing information in farmer-useable format, to increase the economic viability of sustainable farming systems
5. Promote information exchange among growers, markets and policy makers on ways to encourage development and adoption of sustainable food and fiber production systems
6. Form a cooperative endeavor of organizations and individuals committed to these goals, to accelerate and amplify the education, research, and policy activities so that an ever-increasing share of the food supply will be produced using methods that are safe for both consumers and farm workers, and environmentally friendly
7. Dissemination of scientific and technical information that will facilitate sustainable agricultural practices and systems among producers, consumers, policy makers, economic planners, health professionals, and environmental organizations
8. Help instill greater peace and harmony in our communities by providing children and families with more opportunities to connect directly with Nature

Many organizations have endorsed the Project including the Sangre De Cristo Livestock Association, the Mora Land Grant, the Mora Chamber of Commerce, the National Wild Turkey Federation, the National Wildlife Alliance, the New Mexico Acequia Association, Luna Community College, New Mexico Highlands University, New Mexico State University, and United States Department of Agriculture.

### **Mora Media Initiative**

The film will portray historical figures as well as present day voices from Mora telling stories from the past and visions for the future. A community advisory team is already working on ideas for the film. The Mora Independent School District, in partnership with Luna Community College, has committed to providing student interns and technical assistance and an application of \$20,000 has been submitted to the New Mexico Film Commission.

*Corridors of Culture* is the story of Mora, a pathway of migration for thousands of years from the four directions to this centralized place within the great Rocky Mountains, our Sangre de Cristos. This one-hour documentary film focuses on the converging timelines and cultures of the Hispanic, Native American and European settlement in Mora, New Mexico; the current challenges and solutions to changing times and the people's vision for their children's future.

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# ROCINANTE HIGH SCHOOL - FARMINGTON



## School Profile

A very strikingly handsome school located on the northern rises above the Animas and San Juan Rivers in Farmington, NM, Rocinante High is the district's alternative high school, providing an academic focus to students who for one reason or another have found themselves outside of the mainstream pathway to graduation. Students attending Rocinante give up many of the traditional social and athletic components of high school life to focus on credit recovery in a safer, smaller, family-like atmosphere.

While, Rocinante provides a strong focus in traditional core studies, it also supplies opportunities for students to attend the district's CATE center and local San Juan College, focusing on various vocational studies. Offering courses within a 4x4 block allows students to recover credits lost in the past difficulties more quickly. That, along with our night school classes offered to the entire region, gives students even more opportunities to get back on the graduation track.

## Demographic Information /Student Demographics

On any give year, the student population at Rocinante High School is 50% to 60% Native American students with the remaining 50% to 40% divided equally between Caucasian and Hispanic students.

Male and Female student populations are nearly always equal in proportion. Our enrollment can run as high as 180 enrolled students at the beginning of each term, then settles to about 160 committed students within a few weeks.

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### School Mission and Vision

While our first goal with our students is to see them successfully graduate from high school; we provide on-going connections and encourage students to participate in post- secondary educational opportunities and become life-long, productive community citizens.

### Thus, our mission:

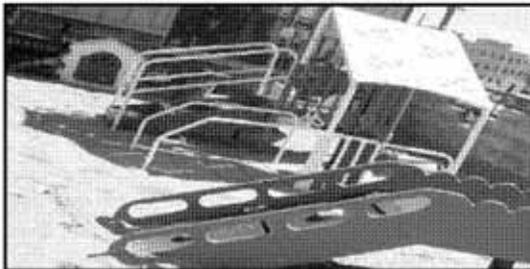
*By developing policies and opportunities that promote good student attendance, positive social growth, and a personal commitment to academic success, Rocinante High School strives to meet the needs of students not fitting into the regular academic setting and enable them to become successful, contributing members of society.*

### Faculty and Staff

There are nine fulltime, committed instructional staff members in our school with additional supports coming from a total inclusion SPED program, Title 1 Reading Lab, Plato Computer Instructional Center, Computerized Math Lab and a fully staffed, 2-Star Student Day Care Center.

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School administration and day to day operations at Rocinante High School is handled by the principal, secretary, counselor, registrar, part-time nurse, and night custodian.



## Community Aspects

### Historical, cultural or geographic highlights of the community...

One might say that Farmington is the city of the four corners area, blending influences of four Western States: Arizona, Utah, Colorado, and New Mexico; three historic nations: The United States, Navajo Nation and Ute Mountain; and a multitude of rich historic cultures living and working within a landscape of deep canyons, majestic peaks, forested valleys, and high painted deserts.

## Ingredients for success...

Rocinante staff members have always had a good, functioning grasp of building RELATIONSHIP with students. As we began to reassess our instructional environment 4 years ago, what seemed to be lacking was RIGOR offered in a RELEVANT format.

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### What did you do?

Under the guidance of the Priority Schools Bureau, we began a process to align our curriculum to state standards and implement researched based instructional strategies that would benefit our targeted student groups. Goal teams made of staff from the core areas began to focus on the use of organizational templates, vocabulary instruction and written response practices.

### What worked?

Because committed and consistent school attendance from our at-risk population was a constant challenge, the leadership team soon began to experiment with a shortened, more focused delivery system that

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would allow us some flexibility in dealing with poor student attendance caused by a myriad of student issues. Thus, was born our 3-Week Unit delivery system. This shortened focus for academic and attendance goals began to

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improve our students' commitment to school. It also allowed us to develop integrated and focused units to address whole-school academic

issues when necessary.

### How did you motivate your students and staff?

Motivation has improved as students' connection to academic purpose has improved when evidenced in the slower rate of student turnover in our school today as compared to yesteryears. Staff members have been motivated to help produce the academic successes at Rocinante High by the inclusion, decency, trust, and pride that have grown within our school culture over the years. We are very proud that our reading scores out-perform the state and district averages and expected AYP scores on state tests. We are a family and we meet the challenges, victories and defeats together.

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**School Goals**

Our goal is to always meet our at-risk students instructionally where they are and move them as close to proficiency in their studies as is possible.

Our goal is to always respond to a student's personal crises as efficiently as we can within a management system that allows them to reconnect back to school as quickly as possible.

Our goal is to always be an effective part of district and state strategies to improve student learning.

Our goal is to always find creative responses to difficult problems "within our box" if we are limited to that space.

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**Incentives?**

While we have implemented different kinds of extrinsic incentives throughout our 5-year journey to school improvement, the real incentive at Rocinante High has become the opportunity to identify and value a realistic graduation plan, realizing that everyone in the school community is *pulling with you and for you*.

Graduation plans are reviewed every three weeks and analyzed in detail each nine-week period during our advisory conferencing with guardians. We cannot overemphasize the impact this has had on student success which stems from being connected to an expectant and prosperous school family.

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**Parent and Community Involvement**

**How do school culture and parent/community support and involvement contributes to the success of your school?**

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Rocinante is a safe school. Rocinante is an expectant school. All students coming to Rocinante must pass a thorough interview process with the principal or designee. The interview process has been refined over the past five years to help students, guardians, and school personnel focus on a plan to address past failures and future goals that will

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lead to a successful graduation.

This process allows an up-front exchange of student/guardian concerns and school expectations. It establishes boundaries that individual students need to be successful; supports that guardian or agency representatives need to contribute to the process; and sets goals that must be met to successfully graduate.

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It is followed up each school year by in-depth advisory conferences that occur each nine-week period where accomplishments towards graduation and next-step plans are reviewed in detail.

## Sustainability

### How will you sustain the momentum of success?

Rocinante High School will continue to improve instruction through further curriculum alignment. We will continue to refine classroom instruction based on best practices. We will continue to improve student and school management systems through opportunities offered to us by our own district technical assistance team.

### District support?

The district acknowledges the success and improvements to our school and learning culture; supporting us with continued Title 1 services, campus improvements, state stimulus monies to hire consultants to provide professional development and support, and providing us with our own District School Improvement, Technical Assistance Team.



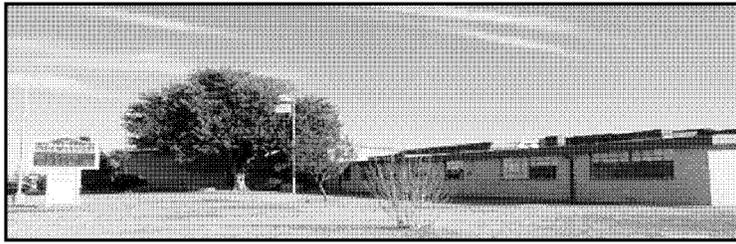
### Initiatives?

We are fully engaged at this juncture with new district initiatives entitled the "3-Critical Commitments". Most of this work mirrors and improves work we have done in the past five years, so we are pleased to be a part of this larger effective process.

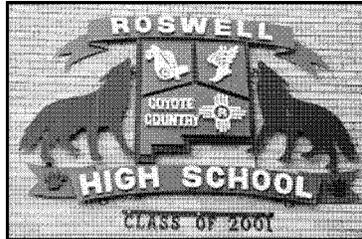
We are also presently studying available research on the effects of particular board games on the improvement of student IQs. We think that we are coming up with a workable plan to continue to improve both the academic and social skills of our school family.

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# Roswell High School



*Home of the Fighting Coyotes*



## School Culture Purpose, Mission, Vision, Values

The purpose of Roswell High School is to promote a disciplined safe environment, improving academic achievement, implementing new technologies, and encouraging parent/guardian and community involvement so as to facilitate a student's potential for excellence and the building of skills necessary to become a responsible, respectful and productive citizen.

***"Excellence in Education- Success in Society!"***

It is the mission and responsibility of Roswell High School, in close collaboration with the families of Roswell High School students, to provide a comprehensive educational program for the youth of this community. Roswell High School educators seek to encompass experiential and academic teaching of students to enable them to deal successfully with the emerging technological complexities of the twenty-first century by emphasizing the following:

- \* Educating students so they can think and communicate effectively.
- \* Respecting one's own culture and that of others.
- \* Developing moral responsibility, emotional stability and physical fitness.
- \* Acquiring the skills necessary for economic and social fulfillment.
- \* Instilling a sense of responsibility for citizenship necessary for living in a changing democracy.

Roswell High School uses varied instructional modalities to meet the individual needs of each student. Facilities and other resources within the community are used to provide educational experiences related to student needs. All students are encouraged to become self-disciplined, to be aware of and utilize their individual talents.

Roswell High School's vision is to continue to evolve into an institution that delivers quality instruction, promotes all students potential, embraces change that enhances curriculum, and involves the community that Roswell High School serves. Roswell High School strives to remain

an exemplary education facility, non-discriminatory and willing to share the ideas and philosophies which have promoted the school's success.

Roswell High School's values affirm its dedication to the profession of education. With this affirmation, Roswell High School embraces the obligations of professional educators to improve the general welfare, to advance human understanding and competence, and to bring honor to the endeavors of teaching and learning.

- \* Roswell High School will be mindful of the school's responsibility to increase the academic excellence of students through the disciplined pursuit of knowledge.
- \* Roswell High School will be persistent in fostering respect for a life of learning and respect for all students.
- \* Roswell High School will seek and support policies that promote quality in teaching, learning and provide all engaged in education the opportunity to achieve excellence.
- \* Roswell High School will promote the qualities that foster and honor a democratic way of life that cannot exist without disciplined, educated and free minds.

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### **Faculty and Staff**

Roswell High School's faculty is made up of both genders, is culturally diverse, and educationally sound. Our current on-location faculty and staff consist of one hundred and thirty-nine active employees. There are seventy-six female employees. There are three administrators, one Dean of Students, three Counselors (at present), one Special Education Chairperson, one IEP Facilitator, seventy-eight highly qualified, certified

educators, fourteen associates, one Librarian, one Nurse, six Secretaries, three Security Officers, eight Custodians, and twenty kitchen staff. Included within the faculty are 31 Roswell High School graduates who have chosen to come back to their alma mater to educate the schools future graduates.

District personnel who assist Roswell High School faculty and students include: the district Superintendent and his staff, Truancy Officers, Diagnosticians, Speech Therapists, Physical Therapist, Social Workers, Psychologist, Occupational Therapist, and a teacher of deaf education.

Roswell High School is privileged to have a large number of community assets that add to the services that Roswell High School can provide to students. These include Department of Labor's Career Center, Counseling Associates, Chaves County Youth Services, School Based Health Clinic, Chaves County Family and Youth Counseling, Assurance Home, Youth Challenge, Sunrise (ENMMC), ENMU-R Transition to two and four year colleges.

Of the one hundred and thirty-nine employees at Roswell High School, forty have their Masters degree, and seventy-nine have Bachelors degrees. Other associates and staff who provide services at Roswell High School have varied education levels.

Roswell High School's staff is made up of male and female educators, from various cultures, and with various educational backgrounds, and interests thus helping to meet the needs of our diverse student population. Anglo, African American, Asian, Hispanic, Spaniard, Native American, and other cultures are present within Roswell High School's unique staff.

Roswell High School is proud to have many faculty members who hold national, state, local professional memberships. Staff participation is encouraged in community services as well as in educational services. The faculty is also highly encouraged to continue their education as a life long learner by Roswell High School and the Roswell Independent School District.

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### **Student Demographics**

Roswell High School serves a diverse ethnic population, economic population, and special needs population.

Roswell High School has a minority majority population. In the past six years the Hispanic student population has increased from 65.93% to 73.72%. The Caucasian student population has declined from 28.48% to 21.41%. Other various ethnic percentages equal 4.87% of the student population.

Roswell High School is a Title I school with many of the students coming from low income families.

Roswell High School's students with disabilities are those with unique learning needs. Special Education students make up 12.51% of the student population. This percentage has dropped 1.94% from 2007. Other student groups with special needs that make up the school's population include; English Language Learners, High Risk and At Risk students.

Even with such student diversities, 90.69% of Roswell High School seniors received diplomas in 2009. Only 9.61% moved to a different educational facility or dropped out. Of graduates, 79.83% continued on to attend two or four year post secondary schools according to information provided in their Next Step Plan. Roswell High School is determined to leave no child behind and has developed extensive services to help students succeed in their educational pursuits.

## Community Aspects



### Historical, cultural or geographic highlights of the community

Roswell High School is a part of the Roswell Independent School District. Roswell is a community of approximately fifty thousand people and is located in the Pecos Valley along the Pecos River and the old Chisum Trail.

The Bitter Lakes Wildlife Refuge is the migratory home for many different bird species including the Lesser Sandhill Crane, Snow Geese, and Canada Geese.

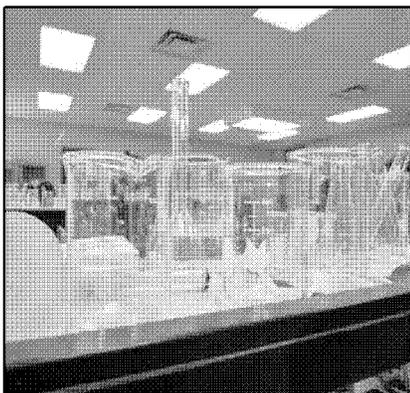
Roswell was the home of Walker Air Force Base and at one time had the 2<sup>nd</sup> longest runways in the United States. In 1947 a UFO crashed outside of Roswell. The community is the center point to the yearly UFO Festival providing a pilgrimage of sorts for those who believe in extra terrestrials.

Robert H. Goddard, while in Roswell developed his rocket and was a major influence in the development of the United States space programs. The Roswell Museum and Art Center houses many of Goddard's early equipment and artifacts used in his rocketry. The museum also contains many original art works of New Mexican artists such as Peter Herd and Henriette Wyeth.

Originally Roswell High School was located at 500 S. Richardson. This building is now the Yucca Youth Center. The current high school was constructed in 1953 and has gone through several renovations and additions to accommodate population growth, new technologies, expanded programs and curriculum, and an atmosphere more conducive to the educational process.

The school caters to a minority majority population and has been recognized as one of the top 14 minority majority schools in the nation by the Gates Foundation. Roswell High School has been recognized as one of the top 10 Breaking Ranks schools in the nation. Roswell High School is also the only 4A high school in the state of New Mexico to meet AYP two years consecutively removing the school from the state designation of corrective action to that of progressing.

## Ingredients for success



### What did you do?

Roswell High School offers all state mandated courses required of a student to graduate from high school. These include English, Mathematics, Science, Social Studies, Fine Arts, Physical Education, and Health.

In 2006 - 2007 Roswell High School, through the use of disaggregated data, initiated a new pedagogy to increase the rigor of classes taught at Roswell High School by requiring all 9<sup>th</sup> grade students to take Algebra I, with supplemental math and reading intervention courses for those students performing below grade level. Roswell High School also implemented New Mexico History at the 9<sup>th</sup> grade level as mandated by the state PED. These changes lead to extensive curriculum mapping with horizontal and vertical alignment of curriculums within Roswell High School and the Roswell Independent School District.

In 2008 - 2009, Roswell High School's faculty and administration determined through the study of standardized test results, state and national reports (NMHSCE, 11<sup>th</sup> grade NMSBA AMO, AYP report and the district math exam) that our focus at Roswell High School should be on Language Arts, Reading, and Mathematics. In addition, Roswell High School focused on the areas of Science and Social Studies having found a trend for test scores to be low on the NMHSCE and 11<sup>th</sup> grade NMSBA, and because of the increasing accountability requirements of the State of New Mexico.

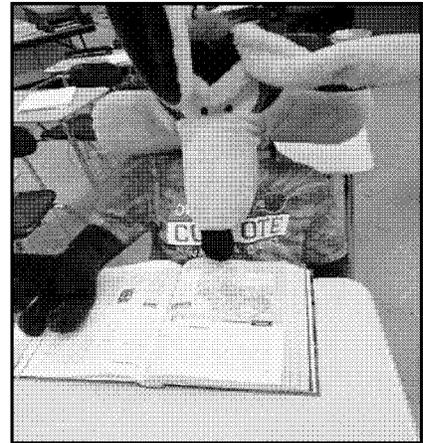
### What worked?

Highly qualified certified instructors, using an established curriculum, instruct students in traditional and non-traditional class settings. Roswell High School utilizes a traditional 6 period day with 58 minute classes. All courses offered at Roswell High School are aligned with New Mexico State Standards and Benchmarks.

The course curriculums are designed to enhance the probability of students learning the required materials as demonstrated by the students' ability to complete the course work and pass the required assessments. Areas of focus are outlined in the current Educational Plan for Student Success. The plan also adds a valid short cycle assessment for teacher to utilize in adjusting their classroom instructional methods and helping facilitate the students learning of the ACE skills process.

Read 180 is a program that was implemented to enhance the reading proficiency of those students who were reading below grade level and is proving to be successful in closing the reading gap between subgroups. MECA (Microcomputer Evaluation of Careers and Academics) is a program for students with disabilities and has been implemented to assist students by providing interest inventories, career exploration, goal planning, independent living, and functional skills training. Curriculums are modified and adjusted when students not having mastered critical information, as demonstrated on standardized tests which helps to identify the weak areas in the curriculum.

The use of alternate forms of assessment is implemented to facilitate the success of the student. An example would be the need of services through special education, bilingual education, and Title I where applicable. These services are provided when a lack of knowledge is evident, through testing or referral, or when a student's needs are greater than the general classroom educator can provide alone. Alternate forms of assessment are also utilized to facilitate the success of students, much of which is hands-on or performance based.



In the area of clubs and organizations, delivery is by stipend certified teacher or by a volunteer club sponsor. These groups usually have a set of state or national rules by which they are held accountable. An example is the NMAA which is the governing body of athletics in the state of New Mexico, or as in Distributive Education Clubs of America (DECA), that has national and state by-laws and guidelines that must be followed.

### How did you motivate your students and staff?

Roswell High School maintains high standards for students and develops curriculums that challenge the students and inspire learning. Roswell High School's administration and staff has demonstrated throughout the years that they are a concerned, and caring group of educators who put the needs of their students first and are willing to make tough changes for the improvement of education. All of these qualities encourage students, parents, and community stakeholders to make Roswell High School their school of choice.

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Roswell High School maintains and is continually building a positive environment that enhances the desire of the student to attend school. The school offers a varied and attractive curriculum that facilitates the students' entry into a two year or four year college, entry into a career technical school or training facility, or certification that offers entry into the job market with credentials.

### School Goals

Roswell High School currently maintains an exemplary rating by the State of New Mexico and the NCA (North Central Accreditation) as of the last visit of NCA in 2006 - 2007. Roswell High School met AYP for the second year and is designated by the State Public Education Department as Progressing. Even having reached this goal, there are a multitude of challenges Roswell High School is facing.

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Internal challenges facing Roswell High School in the future include:

1. Meeting and exceeding mandated performances standards.
2. Developing new methods that will improve student enrollment, student retention, and success rates.
3. Maintaining the faculty and staff retention.
4. Continued improvement of student scores on standardized tests.
5. Maintaining and updating statistics to improve curriculum.

External challenges facing Roswell High School in the future include:

1. Marketing our school in a changing community economy.
2. Improvement of funding for our school programs.

3. Continue working on the improvement of the Play-Do-Study-Act (PDSA) approach in assisting the effectiveness of the implementation of Roswell High School's Educational Plan for Student Success.

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### Incentives

Roswell High School offers a wide variety of elective courses that students use to fulfill the elective requirements toward graduation. Some of these courses can be substituted for mandated courses, such as health occupations which can substitute as a health class. Also provided are Plato tutoring courses in which students can take computer courses to assist in credit recovery in core subjects for seniors if needed. Career Technical Education offers courses in auto mechanics, woodworking, foods, and child development. Business courses include marketing education, accounting, office technology, and various computer application courses. Fine Arts courses include Band, Choir, Drama, and Art.

Roswell High School offers a large number of extra curricular activities in which students are encouraged to participate. Roswell High School sports choices include football, boys and girls basketball, baseball, softball, boys and girls track, boys and girls soccer, volleyball, boys and girls golf, boys and girls tennis. Roswell High School also supplements the courses offered by an active dual enrollment credit program with Eastern New Mexico University – Roswell campus. Roswell High School supports many clubs and organizations that are youth oriented and are conducive to the social education of the student body. Student counsel, MESA club, Key club, Youth Alive, Art club, DECA, BPA, Auto club, Cheerleading and Dance team are a few of the clubs and organizations recognized by RHS and students are highly encouraged to become involved.

## Parent and Community Involvement



### How do school culture and parent/community support and involvement contribute to the success of your school?

Roswell High School is and will remain in pursuit of positive parent, community, and local business involvement for all of these are stakeholders in our educational endeavors. Roswell High School faculty and staff encourage our students' parents and the community to participate in all aspects of their children's education.

Roswell High School recognizes a multitude of school based parent committees that have been formed to include concerned parents and members of the business community. The Parent Advisory Committee (PAC) has monthly meetings to discuss the many issues and events that are currently taking place within the student's life at Roswell High School. Open houses are conducted every mid-nine weeks and allow parents the opportunity to speak with teachers about their child's progress and school programs.

Roswell High School recognizes many community-based organizations which give their time and/or have provided resources for the school to draw upon. DARE, Chaves County Youth Services, Civic organizations, (Optimist, Kiwanis, Altrusa, Elks Lodge, and Rotary Club), and Community Partners in Education (Coke, Herf Jones, etc...), are just a few of these community groups who are actively involved and participate regularly as stakeholders.

Roswell High School recognizes that it takes a community to raise a child and is dedicated to promoting each student's potential for excellence and the building of skills for becoming a responsible, respectful, and productive citizen.

Communications to these stakeholders is disseminated through a multitude of sources. E-mail, telephone, facsimiles, public mailings, radio, television, Power School Parent connect, and our Internet web page, are all means of sharing information. Roswell High School faculty maintains a relationship approach in which all educators are encouraged to make personal contact with the students, and parents of students enrolled. All stakeholders are encouraged to share comments regarding programs, services, and policies through verbal and or written evaluations.

## Sustainability

### How will you sustain the momentum of success?

Roswell High School uses a multitude of assessment tools, both internal and external, to determine the successes and failures of the school. Based upon data collected from our assessments, Roswell High School's administration and faculty makes changes to curriculum and procedures within the school. Maintaining a flexible disposition to change, those at Roswell High School disaggregate acquired information that is pertinent in making educated changes and implementing sometimes questionable changes. Through this process improvement becomes an ongoing procedure with the school reaping benefits from both our successes and failures.

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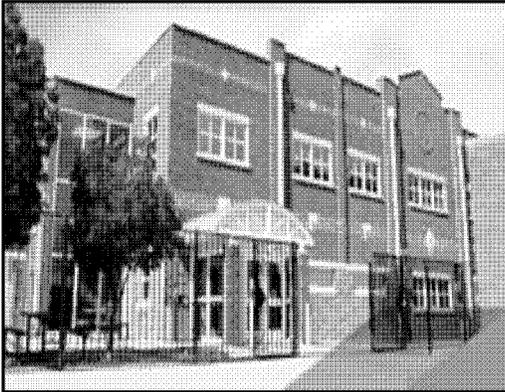
Internal assessment tools include:

- \* Test scores data acquired from New Mexico High School Competency Exam, 11<sup>th</sup> grade NMSBA, ACT, SAT, EXPLORE, PLAN, PSAT, AP exams.
- \* Communication of information through the leadership team, and departments on articulation of programs and student rates of progress.
- \* Inputs from the School Leadership Team.
- \* Input from the faculty on strengths and weaknesses of current programs.
- \* ACE weekly tests with results reported weekly.

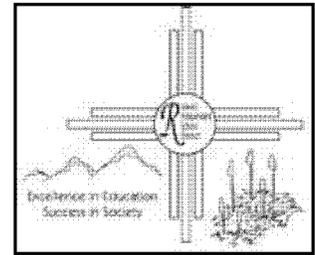
External assessment tools include:

- \* Information acquired by completed parent and community surveys.
- \* District and School Report Cards.
- \* Data produced for Roswell High School by the Roswell Independent School District's assessment office.

- \* Recommendations and mandates from federal, state, local and independent regulatory agencies NCA, NMAA, etc.



### District support



From the educators who are hired, the data produced, to the help in developing curriculum and new practices, the Roswell Independent School District's administrative team is always willing to help in whatever capacity is needed. Providing for and acknowledging the diversity of Roswell High School's students is only one of the strengths the district's team has in providing this school support. With a widely diverse population, complex changes that could take a long time seem to get done in a timely manner. This leaves Roswell High School's teachers the necessary time to teach the data driven curriculum in a flexible manner. The Roswell Independent School District states clearly where district support will be provided in the Board Goals and Educational Plan for Student Success Goals.

#### Roswell Independent School District's Board Goals

1. We will ensure discipline and student safety.
2. We will improve academic achievement.
3. We will continue to implement technology to:
  - Raise academic achievement
  - Improve learning efficiency
  - Increase student motivation
  - Focus on inquiring, collaborating, problem solving, student centered learning, and interdisciplinary instruction.
4. We will facilitate parent/guardian involvement

#### Roswell Independent School District's EPSS Goals

##### Educational Plan for Student Success

1. All students will increase their comprehension and application of informational reading material across the curriculum.
2. All students will improve their comprehension and application of math skills across the curriculum.
3. To improve parent involvement for their children's academic achievement and success through a collaborative approach as a member of the school community.



## Initiatives

Roswell High School is very proud of the accomplishments the faculty and students have reached through the ability to problem solve situations, and is aware that continued growth is the only means to continue our educational excellence. Our initiatives are resolved in a cyclical path of examining data, developing curriculum, implementing curriculum, acquiring data, and changing where needed as quickly as we can. This complex string of events allows us to better our teaching skills, embrace our creativity, and educate to the best of our abilities, while

remembering all the time that students have a right to learn and teachers have a right to teach and everybody involved will have to work hard to excel in our endeavors.

# ***SIERRA ALTERNATIVE HIGH SCHOOL***



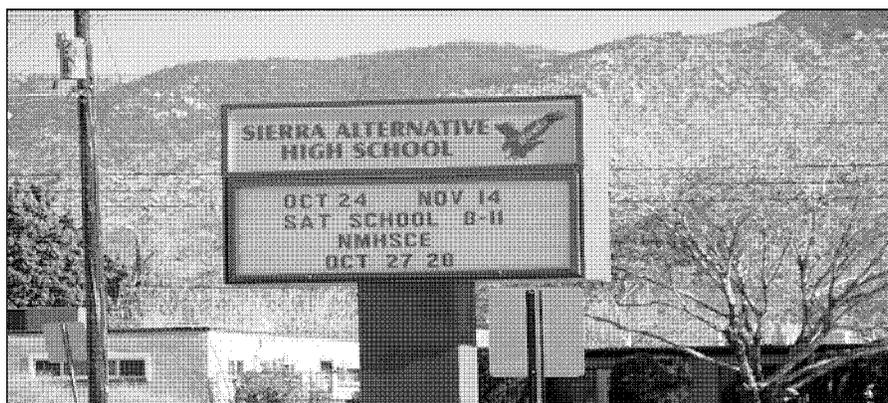
## **School Profile/Demographic Information**

Sierra Alternative High School is a part of the Albuquerque Public School district. The school was created in the early 1990's and has expanded and changed over the years. Currently, Sierra serves 150 full-time and 25 part-time students in grades 9-12. Students come to Sierra from all high schools in Albuquerque.

Approximately 70% of our students are Hispanic, Native American, and African American. Caucasian students make up the remaining 30% of our population. The majority of our students are male, 70% and 30% are female. All students are eligible for the Free and Reduced Lunch Program and Sierra is a Title I school. Students with disabilities comprise 40% of the population and 10% qualify for ELL services.

The staff at Sierra consists of 25 professionals who strive daily to provide students with a quality high school education and support in all aspects of their lives from social services to post-secondary plans.

Sierra's mission is to provide a safe, positive learning environment for high school students who have had minimal success in a traditional setting. Sierra supports and promotes high levels of student achievement by reducing barriers to learning.



## Community Aspects

Sierra is located in the Northeast Heights area of Albuquerque, New Mexico. The campus is made up of 21 portables and we share a fixed building with Aztec Complex.

The Sierra community of staff, students, and parents can best be described as an extended family. The small campus size enables everyone to get to know one another. It is Sierra's priority that no students fall through the cracks.



## Ingredients for success

The new Administration took over at Sierra three years ago. After reviewing curriculum, test scores and other factors, it was evident that changes needed to occur. District approved textbooks were ordered and teachers received professional development in standards-based curriculum, differentiated instruction, Marzano Strategies, and Teaching and Learning with Text. Curriculum maps have been utilized in all courses and all staff is assigned to a Professional Learning Community (PLC). Collaboration periods have been created so that teachers can work together on curriculum and assessment.

District short cycle assessment scores were reviewed and students who did not test proficient were placed in intervention classes for Reading and Math. During advisory period, students are taught test taking and study skills. All students are encouraged to take tests and their education seriously. Each staff member follows the motto of *"being a lifelong learner."*

Classroom size boasts a small student to teacher ratio in all classes. This enables students to receive more individualized instruction.

Sierra's goal has been to make AYP. This goal has motivated the staff as well as the students and has been reinforced each year that we attain that goal. This year we are especially proud to have been named a **"School on the Rise"** for 2009-2010.

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## **Parent and Community Involvement**

The environment at Sierra is warm and welcoming to the parents and the community. The teachers and administration boast an open-door policy. Parents are encouraged to participate in their student's education. Numerous activities are held throughout the year to encourage parent and community participation.

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## **Sustainability**

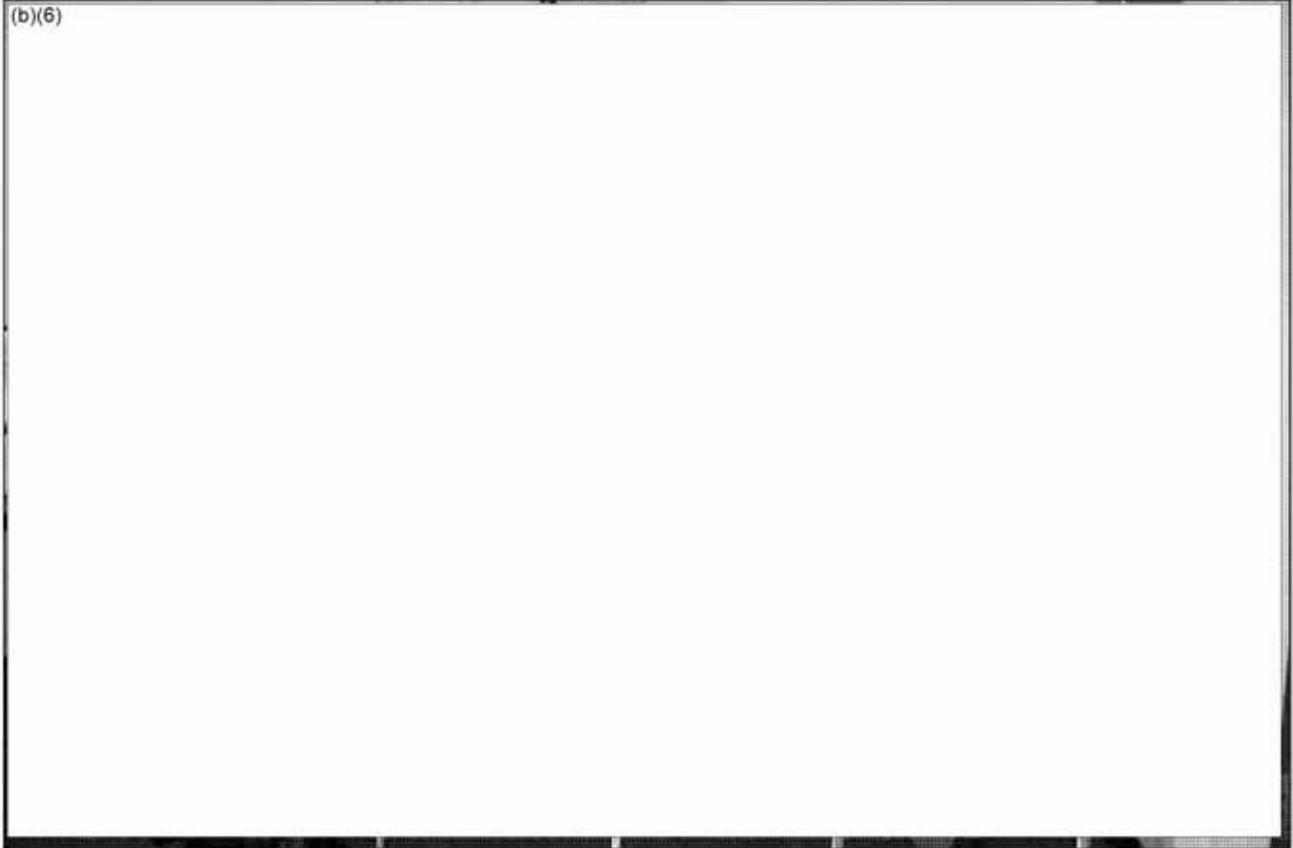
In January 2009 Sierra began offering online learning through BlackBoard. Sierra offers every core course and numerous electives through this program. We realized the demand for online learning to provide students with another alternative. Students can utilize the program for credit recovery and advancement. Some students have chosen to take all of their courses under this format

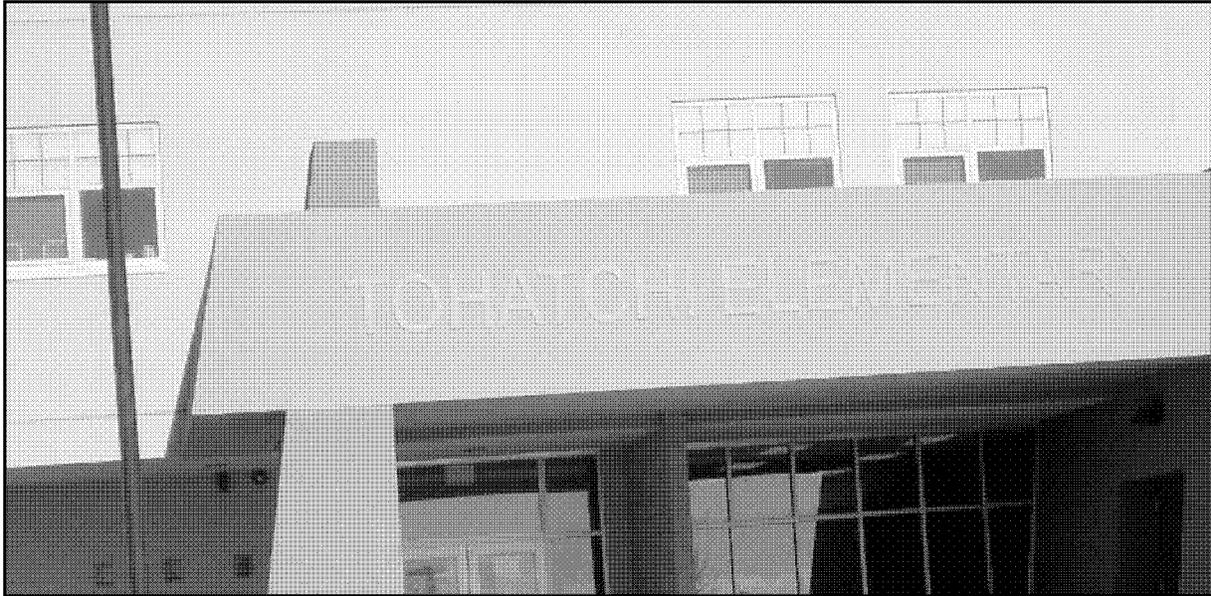
because it matches their learning style. Students from all APS high schools can enroll at Sierra for an online course.

Beginning this school year, Sierra began offering Advanced Placement (AP) English classes and we hope to expand the offering to every core course.

The future goals for Sierra are to continue to hold our students accountable for their education and futures, continue to provide post-secondary support, and continue to encourage our students to reach Sierra's high expectations.

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## School Profile/Demographic Information

### School Mission and Vision

The vision of the school, adopted in 2006, is to be the highest performing elementary school in Gallup-McKinley County, the state of New Mexico and become a nationally-recognized School of Excellence. The school's mission, which was updated in 2008, states that, *"through teamwork, positive communication, and a collaborative learning community, WE educate and empower all students to become lifelong learners, and responsible and productive citizens."*

### Faculty and Staff

Our faculty and staff consist of the following:

Principal  
PreK-5 Teachers (20)  
Title 1 Tutor  
Counselor  
Save the Children Coordinator  
Educational Assistants (8)  
Title 1 Assistant  
Librarian  
School Liaison  
Health Assistant  
Custodians (3)  
Cafeteria (2)  
Secretaries (2)

**Student demographics**

Tohatchi Elementary School (TOE) is a PreK-5 school of 254 students from the communities of Tohatchi, Mexican Springs, Coyote Canyon, and County Line/Naschitti. The school's population is 97% Navajo, with over 80% of students identified as English Language Learners (ELL) and Economically Disadvantaged (ED).

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**Community Aspects**

Tohatchi is a rural community located on the Navajo Reservation approximately 40 miles west of Gallup, New Mexico. Most people commute to work in Gallup or Window Rock, Arizona.

**Ingredients for Success**

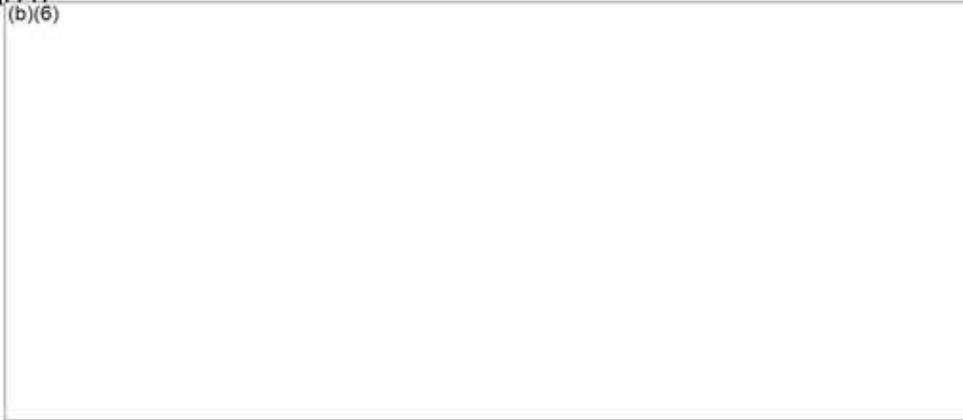
One of the first continuous improvement strategies implemented was to use objective data to make and drive decisions. In each operational area of the school, data was collected and analyzed to assess current level or status and to guide the "change/improvement" decision making process.

The Building Leadership Team (BLT) made a bold decision in the spring of 2007, that for the 2007-2008 school year, the school would be structured by grade level teams instead of broader reading and math goal teams. Teachers, and support staff, would have both greater flexibility and accountability concentrating on their own students, standards, data and responsibilities. The BLT would oversee the accumulation and reporting of grade level data for the purpose of school, stakeholder, district, and state report outs.

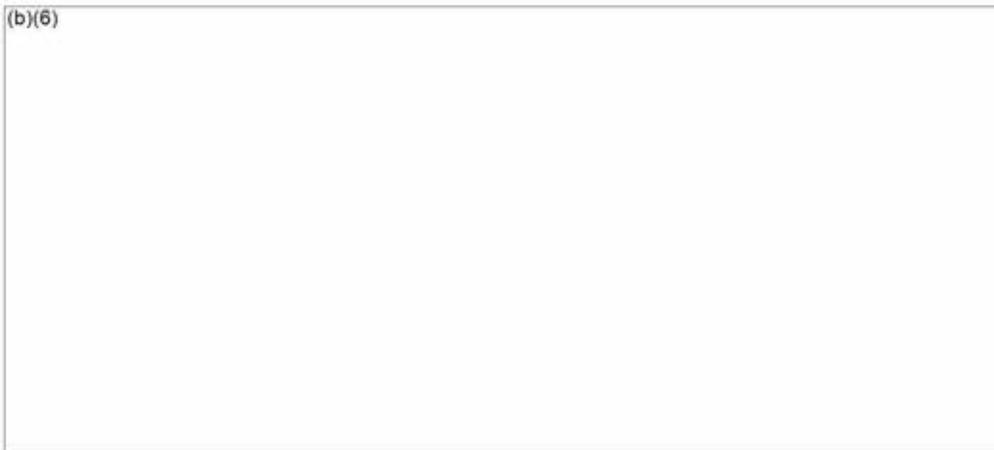
After this restructuring, a commitment was made to develop a master schedule with 90 minute blocks for instruction in both reading and math. With the introduction of Response to Intervention (RtI), the schedule expanded to include 120 minutes of "core" time for reading and math so that Tier II interventions could occur in the classroom. In addition, within Tier I, teachers made a commitment to implementing the reading and math programs with fidelity. The BLT decided to use Title I funds for a reading/math teacher to provide Tier III services to identified 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> graders. Special education services are considered Tier IV at Tohatchi Elementary School.

Teachers were further validated by having common, grade level planning time built into the master schedule. In addition, weekly or biweekly meetings with the grade level team, principal and Instructional Coach occur to discuss issues, concerns, and student data.

In January 2007, the staff at Tohatchi Elementary School began a detailed process of aligning the school's curriculum with state standards and benchmarks and a comprehensive analysis of the school's entire assessment process. Grade level (K-5), formative assessments called Criterion Reference Competency Tests (CRCTs) were developed to better assess students reading and math abilities. These tests are given in August, January and May to measure student progress and growth. Also in January of 2007, the first aligned Curriculum Based Measures ("Math Monsters") were introduced.



Math Monsters were a successful way to track and measure math achievement on a weekly basis. In August 2007, "Cougar Readers" were introduced as the weekly reading Curriculum Based Measures (CBM). Since that time, both Math Monsters and Cougar Readers have been refined to better align with the standards and assess students and classroom instruction. Continually assessing and analyzing student data has enabled the staff to make better and quicker instructional decisions and to provide necessary interventions quickly.



## Parent and Community Involvement

How do school culture and parent/community support and involvement contribute to the success of your school?

Parents are big supporters of fund raisers, such as bingo or the concession stand at school functions. They will always come out for our student basketball games and other functions after school or in the evening such as our Ms. Tohatchi Princess Pageant.

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## Sustainability

As the new principal at Tohatchi Elementary I plan on continuing with the changes that were implemented by Mr. Bickert and the staff at our school. By using the data we receive from the use of Math Monsters, Cougar Readers, district mandated short cycle assessments, we are able to monitor our students' progress and offer necessary interventions quickly. All of the staff at our school truly care about the students and work with the parents and community to ensure that they succeed.

At our school assembly on the first day of school this year, the students were excited about being back and their goal for this year is to make it a "three-peat" with NMSBA. That has become the motto for the year and the students are very proud of their success and are working very hard to make a "three-peat" a reality.



## **PUBLIC EDUCATION DEPARTMENT**

### **OUR MISSION**

To provide leadership, technical assistance and quality assurance to improve student performance and close the achievement gap

### **OUR VISION**

A world-class educational system in which all New Mexico students are prepared to succeed in a diverse and increasingly complex world

### **ACKNOWLEDGEMENTS**

#### **Title I**

Sam Ornelas

#### **Kesselman-Jones, INC.**

Laura Kesselman, (505) 266-3451  
P.O. Box 30182, Albuquerque, NM 87190

#### **Artichokes & Pomegranates**

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*Thank You!*

*"We have invested more than one billion dollars in classroom spending – much of that for professional teachers salaries tied to increased accountability."*

Governor Bill Richardson  
2010 State of the State Address

## **Appendix F-2-1**

### **Charter School Laws and Regulations**

Chapter 22, Section 8B of the New Mexico Statutes Annotated, “The Charter School Act” contains the following sections:

- Section 22-8B-2: Definitions
- Section 22-8B-3: Purpose
- Section 22-8B-4: Charter schools’ rights and responsibilities; operation
- Section 22-8B-4.1: Charter schools’ enrollment procedures
- Section 22-8B-4.2: Charter school facilities; standards
- Section 22-8B-5: Charter schools; local school board authority
- Section 22-8B-6: Charter school requirements; application process; authorization; board of finance designation required; public hearings; subcommittees
- Section 22-8B-7: Appeal of denial, non-renewal, suspension or revocation; procedures
- Section 22-8B-8: Charter application; contents
- Section 22-8B-9: Charter school; contract contents; rules
- Section 22-8B-10: Charter schools; employees
- Section 22-8B-11: Charter schools; maximum number established
- Section 22-8B-12: Charter schools; term; renewal of charter; grounds for non-renewal or revocation
- Section 22-8B-12: Charter school financing
- Section 22-8B-14: Charter schools stimulus fund created
- Section 22-8B-14.1: Charter school capital outlay fund. (Repealed effective July 1, 2012).
- Section 22-8B-15: Charter schools; savings clause
- Section 22-8B-16: Public Education Commission; powers and duties
- Section 22-8B-17: Charter schools division; duties

State regulation 6.80.4 provides requirements for charter school application and appeal; 6.22.3 provides rules regarding the Charter School Stimulus Fund; and 6.43.4

provides rules for bus service negotiation with charter schools. Beyond those specific regulations, all the regulations contained in Title 6, Primary and Secondary Education, of the New Mexico Administrative Code apply to all school districts and public schools, including charter schools. In addition, Section 22-24-10 NMSA 1978 addresses public facilities to be used by charter schools; assessment and Section 22-26-9 NMSA 1978 addresses charter schools; receipt of local property tax revenue.

**Appendix F-2-2**  
**Statutory Provisions for Capital Improvements Funding for Charter Schools**

If, in an election held after July 1, 2007, the qualified electors of a school district have voted in favor of the imposition of a property tax as provided in Section 22-26-3 NMSA 1978, the amount of tax revenue to be distributed to each charter school that was included in the resolution shall be determined each year and shall be in the same proportion as the average full-time-equivalent enrollment of the charter school on the fortieth day of the prior school year is to the total such enrollment in the district; provided that, in the case of an approved charter school that had not commenced classroom instruction in the prior school year, the estimated full-time-equivalent in the first year of instruction, as shown in the approved charter school application, shall be used, subject to adjustment after the fortieth day. Each year, the department shall certify to the county treasurer of the county in which the eligible charter schools in the school district are located the percentage of the revenue to be distributed to each charter school. The county treasurer shall distribute the charter school's share of the property tax revenue directly to the charter school. (Section 22-26-9 NMSA 1978)

On or after July 1, 2009, a resolution submitted to the qualified electors pursuant to Subsection A of this section shall include capital improvements funding for a locally chartered or state-chartered charter school located within the school district if the charter school timely provides the necessary information to the school district for inclusion in the resolution that identifies the capital improvements of the charter school for which the revenue proposed to be produced will be used, (22-25-3 NMSA 1978)

## New Mexico Facts and Figures Relating to K-12 Math and Science Education

Population (36 <sup>th</sup> in U.S., Census Bureau, 2008)	~ 1,984,000
K-12 students (PED, 2009)	~ 325,000
Elementary, middle and high schools	~ 1060
School districts in New Mexico (PED)	89
K-12 teachers in public schools (PED, 2009)	~23,000
Public high school math and science teachers (PED)	~1100 (m) and 900 (s)
Annual production of high school math and science teachers	~26 of each
Students scoring "Proficient" or above on 2009 grade 8 math	42%
Students scoring "Proficient" or above on 2009 grade 8 science	27%
Median household income (45 <sup>th</sup> in U.S., Dept. Commerce, 2008)	\$43,508
Amount spent per year per student (29 <sup>th</sup> in U.S.; 2005-6 data)	\$9,525
State outlay for K-12 education	~ \$2.5 billion
State budget, FY2007	~ \$5.2 billion

### *Improving K-12 Math and Science Education in New Mexico*

Statewide Connectivity (Chap. 4)



Engineering, Math and Science Community Contributions (Chap. 5)

**Appendix P-2-2  
Strength of NM Math Standards**



Dr. Veronica C. García  
Secretary of Education

**New Mexico  
Public Education Department**

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**NEWS RELEASE**

For Immediate Release: May 14, 2010

**New Mexico Ranked 5<sup>th</sup> Nationally for Strength of Math Proficiency Standards**

**Santa Fe** – In an early journal article release, *Education Next* (Vol.10, No. 4) New Mexico ranked 5<sup>th</sup> nationally for the strength of math proficiency standards in a state-to-state comparison of where states have set the bar for student proficiency. “State Standards Rising in Reading but Not in Math,” investigates Education Secretary Arne Duncan’s claims that No Child Left Behind incentivized states to set performance standards low to improve test scores and to avoid sanctions associated with low-performing schools.

“I am proud that New Mexico has insisted on setting the bar high and holding our students to high standards. This will make our transition to common internationally benchmarked standards and assessments much smoother. When students score proficient in New Mexico, we know that they will be nationally and internationally competitive,” said New Mexico Education Secretary Veronica C. García.

The article states that despite the incentive to lower expectations, five states earned an A overall for setting standards at or close to world-class level in math and reading: New Mexico, Hawaii, Massachusetts, Missouri, and Washington. *Education Next* used information from the 2009 National Assessment of Educational Progress (NAEP) to evaluate proficiency standards established by individual states and graded states on the expected standard for performance, not actual proficiency.

Additionally, the article focuses on the two national Race to the Top grant winners. Tennessee received an F with the lowest standards of all states, in that position since 2003. According to Tennessee, the state claimed in 2009 that over 90 percent of its 4th-grade students were proficient in math, yet NAEP on NAEP tests only 28 percent were proficient. Delaware, ranked it 36th of the 50 states. Delaware reports that said 81 percent of its students were proficient in 8<sup>th</sup> grade , but on NAEP only 31 percent score proficient.

The full article to be released in fall journal *Education Next* (Vol.10, No. 4) is available in early release at the following link: <http://educationnext.org/state-standards-rising-in-reading-but-not-in-math/>

###