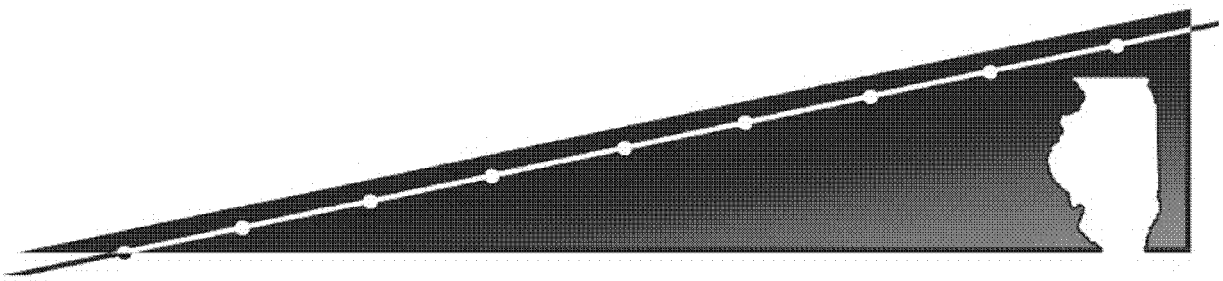


The State of Illinois
RACE TO THE TOP
APPLICATION FOR INITIAL FUNDING

APPENDICES

JANUARY 19, 2010

Volume I

Appendix Volume I

Appendix		Page #
A.	**State Success Factors**	
Appendix A1-1	Participating LEA Memorandum of Understanding	1
Appendix A1-2	Variations Used in the Chicago Public Schools Participating LEA MOU	40
Appendix A1-3	Detailed Table (A)(1): Participating LEAs	43
Appendix A1-4	Key Reform Legislation	74
	A. Performance Evaluation Reform Act	75
	B. P-20 Longitudinal Education Data System Act	94
Appendix A1-5	Student Outcome Goals	110
Appendix A2-1	Description of Multi-State Collaborations	116
Appendix A2-2	Illinois Race to the Top Measurement Plan: Description and Critical Components	124
Appendix A2-3	Budget Summary and Project-Level Budgets	133
Appendix A3-1	Data on State Progress	220
	A. NAEP Data	221
	B. ISAT Data	233
	C. PSAE Data	237
	D. High School Graduation Data	238
B.	**Standards and Assessments**	
Appendix B3-1	State Response to Intervention Supports	239
Appendix B3-2	Illinois High School Reform Context and Momentum	241
Appendix B3-3	STEM Application Areas	248
Appendix B3-4	Blue Wave Project	249

C. Data Systems to Support Instruction

Appendix C1-1	ISBE Website: Available Data re America COMPETES Act	251
Appendix C2-1	Access to State Longitudinal Data	253
	A. Robust Public Reporting of P-20 Data	254
	B. Legal Framework for Data Accessibility	255
	C. Postsecondary Performance and Accountability Reporting	256
Appendix C3-1	Learning and Performance Management Support System Supplemental Materials:	258
	A. LPMS Engagement and Information Gathering	259
	B. Cloud Computing Infrastructure	264
	C. NCSA Overview	266
	D. LPMS Diagram	268
	E. LPMS Data Integration Requirements and Challenges	270
	F. Student Vault	271
	G. LPMS Governance Structure	273
	H. LPMS Procurement and Development: Timelines, Key Activities, and Responsible Parties	274

D. Great Teachers and Leaders

Appendix D1-1	Alternative Teacher Certification Programs in Illinois: Breakdown by Offering Institution	276
Appendix D2-1	Performance Evaluation Policy Group	277
Appendix D3-1	Index of Teacher Academic Capital	278
Appendix D3-2	State Action to Strengthen Teacher and Principal Workforce	280
Appendix D3-3	The E3 Program: Supplemental Information	282
Appendix D5-1	Induction and Mentoring: ISBE Partnering Organizations and Teacher Induction Advisory Team	284
Appendix D5-2	Using the State's National Board Certification Resources to Promote Common Planning and Collaboration: Supporting Information	288

E. Turning Around the Lowest-Achieving Schools

Appendix E1-1	State Intervention Authority and Examples of Past Interventions	293
Appendix E2-1	List of Illinois Priority Schools	295
Appendix E2-2	Illinois Partnership Zone Supplemental Materials	300
Appendix E2-3	Prior LEA Interventions	314

Appendix A1-1

Participating LEA MOU

Illinois State Board of Education

100 North First Street • Springfield, Illinois 62777-0001
www.isbe.net

Jesse H. Ruiz
Chairman

Christopher A. Koch, Ed.D.
State Superintendent of Education

December 18, 2009

Dear District Superintendent:

We have long recognized that the continuous improvement of our education system is necessary to prepare each and every child in Illinois to be successful in postsecondary education and careers. Our commitment is founded in the belief that each and every child should have the opportunity to reach their highest potential and the knowledge that—in today's economy—Illinois' future depends on a world-class education system for all students.

Yet, for too long we have allowed low achievement to persist in too many communities. While the aspiration of quality education is a reality for some Illinoisans, it still remains little more than an elusive ideal for many. Our failures come at a staggering cost to our students, our communities, and our state. The effects are not confined to urban or rural districts, nor are they limited to Chicago or Downstate. Instead, the consequences are felt by every citizen of Illinois—in lost wages, lost jobs, and lost revenue; and in higher crime, poorer health, and missed opportunities.

Earlier this year, President Obama launched an extraordinary opportunity for states to move forward on ground-breaking, transformative ideas in education that would be otherwise cost prohibitive. The federal Race to the Top (RTTT) grant is a competitive, $4.35 billion education reform program enacted as part of the American Recovery and Reinvestment Act (ARRA). Illinois intends to apply for over $500 million of these federal funds.

At least half of any RTTT grant award to Illinois will go to districts that sign the attached Memorandum of Understanding (MOU) and commit to implement the initiatives in our proposal. The MOU must be signed by the Local Education Agency superintendent (or an equivalent authorized signatory) and, as the State application has a greater chance of success if MOUs are signed by all parties, will preferably also be signed by the president of your local governing board (or an equivalent authorized signatory) and the local teachers' union leader (or an equivalent authorized signatory if applicable).

RTTT is an opportunity we cannot afford to miss, especially because the federal priorities closely align with the core principles of our own strategic agenda. Illinois has taken important strides in recent years to build the infrastructure to address the RTTT priority areas. Because of these efforts, we do not seek in this contest a fresh start, but a chance to accelerate work that is already underway with much needed funding from the federal government.

Our RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders, invest resources and expertise to turnaround our most challenged schools and best ensure that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers, becomes a productive citizen in our ever-changing world.

I ask that you review the MOU and consider joining other LEAs as we work together to move the education reform agenda and improve opportunities and outcomes for the students we serve. Thank you for your thoughtful consideration of this opportunity. If your decision is to take advantage of this opportunity, I ask that you return a scanned executed copy of the MOU to rt3mou@isbe.net no later than January 11, 2010.

As always, I appreciate your leadership, your support and the work you do on behalf of Illinois students.

Sincerely,

Christopher A. Koch, Ed.D.
State Superintendent of Education

THE STATE OF ILLINOIS RACE TO THE TOP APPLICATION PARTICIPATING LEA MEMORANDUM OF UNDERSTANDING

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

I. Scope of Work and Nature of LEA Requirements and Commitments

A. Mandatory Requirements. Exhibit I, Part A (the Preliminary Scope of Work – Participating LEA Mandatory Requirements), indicates which portions of the programs and initiatives outlined in the State's Race to the Top Application for Initial Funding, due to the U.S. Department of Education on or before January 19, 2010 (the "Final State Application"), the Participating LEA is agreeing to implement.

B. Optional Programs and Opportunities. Exhibit I, Part B (the Preliminary Scope of Work – Participating LEA Optional Requirements), contains optional programs and opportunities that are not expressly required by the Final State Application. The LEA may elect to pursue funding for the optional programs and opportunities listed in Exhibit I, Part B.

C. Illinois Priority School Reform Commitments. Exhibit II (Illinois Priority School Reform Commitments), identifies commitments the LEA Superintendent and Local Teacher Union's Leader must make in order to receive the benefits identified on Exhibit II. **The Illinois Priority School Reform Commitments are relevant only to Participating LEAs with one or more "Illinois Priority Schools", i.e. all schools meeting the U.S. Department of Education's definition of "persistently lowest-achieving schools," and also includes other significantly underperforming schools that fall within the bottom 5% of student achievement statewide.**

D. LEA Plan. If the State's application is funded, the Participating LEA will prepare a Final Scope of Work to be attached to this MOU as Exhibit IV in a timely fashion but no later than 90 days after a grant is awarded ("LEA Plan"). The LEA Plan must 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 Final State Application.

E. Subject to All Applicable Laws. The State and LEA commitments set forth in this MOU (including exhibits and appendices), the Final State Application, and the LEA Plan are subject to all applicable requirements and regulations of federal and State law, including without limitation the Illinois Educational Labor Relations Act, 115 ILCS 5/1 *et seq.*, laws and regulations applicable to the Race to the Top Program, and the applicable provisions of EDGAR (34 CFR Parts 75, 77, 79, 80, 82, 84, 85, 86, 97, 98 and 99).

II. Project Administration

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

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

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

1. Provide the State supports identified in the Final State Application;
2. Work collaboratively with, and support the Participating LEA in carrying out the LEA Plan;
3. Timely distribute the LEA's portion of Race to the Top grant funds during the course of the project period and in accordance with the LEA Plan;
4. Provide feedback on the LEA's status updates, annual reports, any interim reports, and project plans and products; and
5. Identify sources of technical assistance for the LEA Plan.

C. Joint Responsibilities.

1. The State and the Participating LEA will each appoint a key contact person for the Race to the Top grant.
2. These key contacts from the State and the Participating LEA will maintain frequent communication to facilitate cooperation under this MOU.
3. State and Participating LEA grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the whole grant period.
4. State and Participating LEA grant personnel will negotiate in good faith to continue to achieve the overall goals of the State's Race to the Top grant, even when the Final State Application requires modifications that affect the Participating LEA, or when the LEA Plan requires modifications.

D. State Recourse for LEA Non-Performance. If the State determines that the LEA is not meeting its goals, timelines, budget, or annual targets or is not fulfilling other applicable requirements, the State grantee will take appropriate enforcement action, which could include a collaborative process between the State and the LEA, or any of the enforcement measures that are detailed in 34 CFR section 80.43 including putting the LEA on reimbursement payment status, temporarily withholding funds, or disallowing costs. The State will terminate this MOU and the LEA's status as a Participating LEA, with no further remedy, if the LEA does not submit to the State an LEA Plan meeting the requirements of Section I.D by the date that is 90 days after a grant is awarded to the State.

III. Assurances

The Participating LEA hereby certifies and represents that:

1. It has all requisite power and authority to execute this MOU;
2. It is familiar with the initiatives and reforms described in this MOU and its appendices, and is supportive of and committed to working on the initiatives set forth in this MOU;
3. It agrees to be a Participating LEA and will implement those portions of the Final State Application indicated in Exhibit I attached to this MOU, if the State application is funded;
4. It will comply with all of the terms of the Race to the Top Program and the State's subgrant; and
5. The baseline information set forth on Exhibit III is accurate and complete.

IV. Modifications

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

V. Duration/Termination

This Memorandum of Understanding shall be effective, beginning with the date of the last signature hereon and, if a grant is received, ending upon: (a) the State's termination of this MOU pursuant to Section II.D; (b) the expiration of the grant project period; or (c) upon mutual agreement of the parties (if occurs earlier than grant termination or expiration). If the State's application is not funded, this MOU shall be null and void.

VI. Signatures

The signatures of the LEA Superintendent and the President of the Local School Board set forth below indicate agreement to terms of this MOU; provided, however, the signatures of the LEA Superintendent must be set forth on Exhibit II to indicate agreement to the Illinois Priority School Reform Commitments and for Exhibit II to be incorporated into this MOU.

[signatures on following page]

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

_____
Signature/Date

_____
Print Name/Title

President of Local School Board (or equivalent, if applicable)**:**

_____
Signature/Date

_____
Print Name/Title

The signature of the Local Teachers' Union Leader set forth below indicates support for the LEA's decision to be a Participating LEA; provided that such signature and the Local Teachers' Union Leader's indication of support does not constitute an agreement by the Local Union to reopen or otherwise modify any existing collective bargaining agreement or waive its rights and protections under the Illinois Educational Labor Relations Act; and provided further that the signature of the Local Teachers' Union Leader must also be set forth on Exhibit II for it to be incorporated into this MOU.

Local Teachers' Union Leader (if applicable)**:**

_____
Signature/Date

_____
Print Name/Title

Authorized State Official - required**:**
By its signature below, the State indicates agreement to the terms of this MOU and hereby accepts the LEA as a Participating LEA.

_____
Signature/Date

Christopher A. Koch, Ed.D.
State Superintendent

EXHIBIT I
PRELIMINARY SCOPE OF WORK

PART A
PARTICIPATING LEA MANDATORY REQUIREMENTS

The LEA agrees to all of the mandatory requirements described in Part A of this Preliminary Scope of Work. Commitments applicable exclusively to grades K-8 or high schools are not deemed applicable to LEAs that do not include such grade levels. However, commitments that require integrated and aligned activities between middle and high schools are deemed applicable to all LEAs.

I. STANDARDS AND ASSESSMENTS [RTTT Application Section (B)(3)]

A. Supporting the Transition to Enhanced Standards and High-Quality Assessments

1. Standards-Aligned Instructional Systems.

Illinois will adopt revised Learning Standards in English Language Arts and Math as part of its participation in the Common Core State Standards Initiative. Illinois will also be joining a consortium of states participating in the Common Core State Standards Initiative to jointly develop and implement common, high-quality assessments aligned with the Common Core K-12 standards.

To develop Standards-aligned instructional systems, the LEA will undertake a process during the 2010-11 and 11-12 school years that includes all of the following:

(a) Aligning curriculum to the revised Illinois Learning Standards.

(b) Implementing Assessments for Learning in at least grades K – 10 aligned to the learning benchmarks in English/language arts and math. As revised Learning Standards are adopted by the State in science, Assessments for Learning should be implemented in science as well. "Assessments for Learning" may include:

- Universal screening/benchmark assessment data collected periodically (e.g., fall, winter, and spring intervals) indicating whether most students are meeting benchmarks in a particular academic area, measuring student learning during the previous period of instruction that can help determine student progress toward year-end objectives and identifying areas requiring greater focus;

- Formative assessments that are more diagnostic in nature and provide teachers with information on how to teach specific curricular areas to address student learning needs;
- Native Language Assessment measuring student learning for English language learners; and
- Other assessments that yield descriptive data that can be used to improve instruction throughout the school year.

The State will collaborate with Participating LEAs to integrate Assessments for Learning into a statewide, comprehensive assessment system measuring student progress in a manner aligned to the revised Learning Standards.

(c) Ensuring the district's Response to Intervention (RtI) plan provides for targeted interventions and differentiated supports, aligned to the revised Learning Standards, for students that are not on pace to meet college- and career-ready expectations.

2. Developing and Scaling Science, Technology, Engineering and Math (STEM)-Related Programs of Study.

The Illinois Programs of Study model provides students with rigorous course sequences that integrate and apply academic and technical content, as well as valuable information and experiences to help them make better choices regarding their education and future career goals. Generally, Programs of Study begin in the 9th grade and continue through post-secondary education including community colleges and universities.

Through the STEM Learning Exchanges, as described in Appendix A, and other related supports, the State will assist LEAs with the development of curricular resources, assessment tools, professional development systems, and IT infrastructure necessary to implement Programs of Study in the following critical STEM application areas:

- Agriculture and Natural Resources: development, production, processing, distribution, of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources;
- Energy: developing, planning and managing the production of energy including renewable energy and clean coal technology and its distribution through smart grid technologies;
- Manufacturing: product and process development and managing and performing the processing of materials into intermediate or final products and related support activities;
- Information Technology: designing, developing managing, supporting and integrating hardware and software system;
- Architecture and Construction: designing, planning, managing, building, and maintaining the built environment including the use of green technologies;
- Transportation, Distribution and Logistics: planning, management and movement of people, materials and goods across all transportation modes as well as maintaining and improving transportation technologies;

- Research and Development: scientific research and professional and technical services including laboratory and testing services, and research and development services; and
- Health Sciences: planning, managing and providing therapeutic, diagnostic, health informatics, and support services as well as biomedical research and development.

For LEAs serving grades 9 through 12

The LEA will establish a broad range of Programs of Study as a structural approach to high school reform based on the Illinois design principles. Subject to and following the establishment of statewide STEM Learning Exchanges, as further explained in Appendix A, the LEA must establish two or more Programs of Study promoting critical STEM application areas supported by the STEM Learning Exchanges.

When establishing Programs of Study, the LEA will:

1. Develop Program of Study course sequences in a broad range of academic and career areas;
2. Strengthen academic integration within all Programs of Study to promote stronger linkages between academic disciplines as well as technical content;
3. Support professional development for academic and CTE instructors to implement these Programs of Study and provide opportunities for instructors to gain additional professional certifications;
4. Support real-world connections with adult mentors outside of the school building through strategies such as work-based learning opportunities, problem-based learning projects, and mentoring programs;
5. Implement education and career guidance systems, in coordination with feeder middle schools, to provide students with the opportunity to develop career and education plans; and
6. Form collaborative partnerships with postsecondary education to increase dual credit opportunities and develop structured programs to improve the transition to postsecondary education.

For LEAs serving grades 6 through 8

The LEA will:

1. Establish systems for educators to align curriculum with high schools into which the middle schools feed to support Programs of Study implementation; and

2. Implement education and career guidance systems to provide students with the opportunity to develop career and education plans starting in middle school that align to a Programs of Study model at the high school level.

II. DATA SYSTEMS TO SUPPORT INSTRUCTION

A. Fully Implementing a Statewide Longitudinal Data System [RTTT Application Section (C)(1)]

The LEA will fully cooperate with ISBE on data collections necessary for the State's longitudinal education data system, including efforts by ISBE to ensure data quality.

B. Accessing and Using State Data [RTTT Application Section (C)(2)]

Illinois Collaborative for Education Policy Research.

To further guide the use of longitudinal data to support State policymaking and continuous improvement, the State will support the establishment of the Illinois Collaborative for Education Policy Research (ICEPR) as an independent organization with a governance structure linking it closely to State agencies, participating universities, and other educational stakeholders in Illinois.

The ICEPR will:

- Help identify and define the key policy issues in the State;
- Communicate research priorities and recruit researchers to develop specific projects addressing these priorities;
- Facilitate the data-sharing agreements and administrative aspects of these research projects;
- Communicate research findings and develop recommendations for policy and practice;
- Assist practitioners in developing their own research capacity for more detailed data collection and analysis; and
- Seek and secure external funding for additional projects aligned with State priorities.

The LEA will cooperate with the Illinois Collaborative for Education Policy Research (ICEPR) to build local capacity to support policy research and development activities and share data in a manner consistent with all State and federal privacy protection laws.

C. Using Data to Improve Instruction [RTTT Application Section (C)(3)]

A State-District Partnership for a Learning and Performance Management System.

With funding support through the Race to the Top program, Illinois will expand upon the State system vision set forth in the P-20 Longitudinal Education Data System Act to develop a centrally hosted education information exchange that provides powerful web-based interface tools to support a broad array of instructional and education support functions (referred to as the "Learning and Performance Management System", or "System"). The System will enable the State to host an integrated set of data elements necessary for use by the State and any district wishing to participate, integrate that data with other information held outside of the System, deliver web-based software

applications that can be accessed at no-cost or reduced cost to the end user, and allow customization at the user level. The System will provide longitudinal data to a broad range of stakeholders to inform instruction and improve student learning, and ensure these stakeholders have timely access to needed information while protecting student and educator privacy. With the development and implementation of the System, Illinois can move from the current landscape of fragmented data across a multitude of "siloed" district and State systems, to a common platform providing actionable data for every Illinois educator.

The State and participating districts will develop a governance structure for the System that clearly defines a partnership approach to data use and management. Professional development, training, and support will be provided to Participating LEAs as needed. Pilot implementation of the Learning and Performance Management System would occur during the 2012 – 2013 school year, with piloting focused on Participating LEAs. Full implementation of the System would commence during the 2013 – 2014 school year.

1. Subject to the State's timely development of a Learning and Performance Management System as described in this MOU and in the Final State Application, by no later than the start of the 2012-13 school year the LEA must either (a) directly rely on the Learning and Performance Management System as its primary platform for offering an instructional improvement system serving all teachers and principals, or (b) implement a locally developed instructional improvement system or systems serving all teachers and principals.

2. If the LEA is not directly relying on the Learning and Performance Management System as its primary platform for offering an instructional improvement system serving all teachers and principals, the LEA must integrate local systems with the Learning and Performance Management System to ensure teacher and principal access to key System features.

For a detailed description of the Learning and Performance Management System proposal, please see the proposed design requirements available at www.isbe.net/arra.

III. GREAT TEACHERS AND LEADERS

A. Improving Teacher and Principal Effectiveness Based on Performance [RTTT Application Section (D)(2)]

The State will work with Participating LEAs on the development of redesigned local performance evaluation systems for principals and teachers. These new evaluation systems must be implemented by the beginning of the 2012 – 2013 school year and will be based on the following core principles and assumptions:

- Summative and formative evaluations for teachers and principals should be based on measures of both professional practice and student growth.

- Effective evaluation includes clear expectations for both professional practice and student growth, clear feedback on performance, and a clear plan for building on strengths and addressing short-comings.
- Teacher practice can be measured by well-trained observers using observation-based frameworks that define and describe the elements of effective teaching practice; principal practice can also be measured by well-trained observers using observation-based frameworks that describe the elements of effective school leadership practice, school climate surveys and other tools.
- Individual student growth can be measured over time with multiple measures that include standardized formative and summative tests, curriculum- and course-based assessments and individual student work.

Key components of principal and teacher evaluation systems include the following:

1. **At least 50% of teacher and principal performance evaluations will be based on student growth.**
   - Measures of student growth for both teachers and principals will be developed locally, within parameters set by the State to ensure validity and reliability. The process to establish these parameters will include extensive collaboration with school district management, teachers unions, other stakeholders, other states, and technical experts.
   - Teacher practice will be measured based on Danielson's "Framework for Teaching" or another comparable framework approved in advance by the State. Principal practice will be measured using a framework(s) to be identified by the State.
   - At least until a new State student assessment system aligned with the revised Learning Standards has been implemented, State assessments cannot be used as the **only** measure of student growth in teacher performance evaluations.
   - All teacher and principal evaluations must include a minimum of at least two student growth measures.

2. **All district evaluation systems for both tenured teachers and principals will include the rating categories of Excellent, Proficient, Needs Improvement, and Unsatisfactory.**
   - Participating LEAs do not have to use these specific rating categories for the final summative rating for non-tenured teachers, but must undertake an evaluation of non-tenured teachers using the State framework with four performance levels and must report data to the State based on the four performance levels.

3. **All principals and non-tenured teachers must be evaluated annually. Each tenured teacher must receive a summative evaluation at least once in the course of every 2 school years.** However:
   - For any tenured teacher rated as either "needs improvement" or "unsatisfactory," the teacher must be evaluated at least once in the school year following the receipt of such rating.

- For all other tenured teachers in Participating LEAs, at minimum a non-summative assessment of student growth must be completed in any year during which a summative evaluation is not performed.

4. **The Participating LEA will use the results of local performance evaluation systems to inform decision-making in the areas of professional development, tenure, and possible dismissal of less effective teachers and principals.**

If the State receives a Race to the Top grant, the State will commit to developing all of these system components prior to September 30, 2011. The components of the State support system will include the following:

- Both a teacher and principal model evaluation template. The model template will incorporate the requirements established by the State, but allow customization by districts in a manner that does not conflict with such requirements.
- An evaluator pre-qualification program based on the model teacher evaluation template.
- An evaluator training program based on the model teacher evaluation template. The training program will provide multiple training options that account for the prior training and experience of the evaluator.
- A superintendent training program based on the model principal evaluation template.
- One or more instruments to provide feedback to principals on the instructional environment within a school, such as school climate surveys, "360 evaluations" providing a comprehensive assessment of the effectiveness of school leader behaviors, and parent surveys.
- A State Board-provided or approved technical assistance system that supports districts with the development and implementation of teacher and principal evaluation systems. This system will include assistance to ensure that measures of student growth are rigorous and comparable across classrooms and schools.
- Web-based systems and tools and video-based observation processes supporting implementation of the model templates and the evaluator pre-qualification and training programs. Many of these systems and tools can be hosted on the Learning and Performance Management System upon its development.
- A process for measuring and reporting correlations between local principal and teacher evaluations and (i) student growth in tested grades and subjects, and (ii) retention rates of teachers.

Subject to the development of State support systems, Participating LEAs will implement local evaluation systems meeting the requirements set forth herein by no later than the start of the 2012-13 school year. If the State does not develop all of these components by that date, the obligation of Participating LEAs to implement redesigned performance

evaluation systems will be postponed for as long as it takes the State to implement these systems.

B. Ensuring Equitable Distribution of Effective Teachers and Principals [RTTT Application Section (D)(3)]

Addressing District Barriers and Providing Transparent Data on Within-District Disparities.

If the LEA has one or more high-poverty schools and/or high minority schools, as designated by ISBE consistent with federal requirements, the LEA must perform a comprehensive review of institutional policies and constraints that may prevent such schools from attracting top talent, and develop strategies to address these constraints over the course of the grant period. Commencing with the 2011-2012 school year, the review must consider human capital performance metrics reported by ISBE, which will include disparities in school-level average teacher salaries, teacher academic capital, and other useful performance metrics developed in consultation with stakeholders.

C. Improving the Effectiveness of Teacher and Principal Preparation Programs [RTTT Application Section (D)(4)]

The Final State Application will include a high quality plan to:

(i) Link student achievement and student growth data to students' teachers and principals, and link this information to the in-State programs where those teachers and principals were prepared for credentialing, and to publicly report the data for each credentialing program in the State.

(ii) Expand preparation credentialing options and programs that are successful at producing effective teachers and principals.

The LEA will cooperate with ISBE and IBHE to establish placement sites for pre-service teachers and principals from programs that are successful at producing effective teachers and leaders.

D. Providing Effective Support to Teachers and Principals [RTTT Application Section (D)(5)]

1. Scaling Up Support for All Beginning Teachers and Principals.

Subject to the availability of funding for programs, the LEA will:

- Establish induction and mentoring programs for all new teachers for at least two years in duration, with the programs meeting standards set forth in the School Code and administrative rule; and

- Participate in the State's technical assistance and accountability infrastructure to improve the quality of all new teacher induction and mentoring programs.

2. Intensive Educator Support for Critical P-20 Transition Points.

(a) **Early Learning to K-3** (*not applicable to high school districts*)

The State will provide targeted funding and assistance for implementation of a developmentally-appropriate kindergarten readiness assessment to identify students' skills and achievements at the beginning of kindergarten. Following the State's development and piloting of a statewide kindergarten readiness assessment program and subject to the availability of funding for the assessment and the professional development, the LEA will:

- Implement a kindergarten readiness assessment; and
- Integrate and align professional development across early learning and grades K-3.

(b) **Middle to High School**

Since the 2007 - 08 school year, the State has funded the cost for school districts to implement the EXPLORE test in 8th or 9th grade and the PLAN test in 10th grade. Collectively, EXPLORE, PLAN and ACT constitute the Educational Planning and Assessment System ("EPAS"). Commencing in the 2010-11 school year, the State will require that Participating LEAs administer EXPLORE during 8th grade to better address the transition from middle to high school. The State will also establish a consistent testing window for administration of the EXPLORE and PLAN by Participating LEAs so that the data can be used in a consistent way to measure student and subgroup growth during the middle to high school transition.

Subject to the continuation of State funding for EXPLORE and PLAN, the LEA will:

- Clearly communicate and create a common understanding among educators, parents, and students that a student's scores on 8th grade and high school assessments (including EPAS system assessments) are a predictor of the student's readiness for non-remedial coursework.
- Establish systems for educators to discuss patterns and instructional needs identified through the data, and establish a process for early identification of students who may need remedial assistance before transitioning to college. These systems must include communication and coordination between high schools and feeder elementary/middle schools regarding aligned school improvements activities and targeted interventions to address areas of deficiencies.
- Create intensive instructional programs, primarily in math and reading, and student support services during high school years that increase the numbers of students prepared for non-remedial coursework.

(c) **High School to Postsecondary** (*not applicable to elementary districts*)

In response to the high cost of remediation and its impact on students and families, the State of Illinois adopted the College and Career Readiness Act, Public Act 95-0694, which created a 3-year pilot project with the goal of increasing college readiness and decreasing the need for remedial classes through:

1) The alignment of high school and college curriculums;
2) Measuring college readiness through aligning ACT scores to specific community college courses;
3) Increasing the number of student enrolled in a college-prep curriculum;
4) Providing resources and academic support to students in their senior year of high school through remedial and advanced coursework and other interventions; and
5) Development of an evaluation process that measures the effectiveness of readiness intervention strategies.

Consistent with the objectives of the College and Career Readiness Act, the LEA will work with the primary community college(s) into which its high school or high schools feed to:

- Facilitate communication and collaboration between them, align curriculum goals and academic expectations;
- Establish a process for early identification of students who may need remedial assistance before transitioning to college using assessments administered to students in high schools, particularly in math; and
- Create programs that seek to address the needs of these students before high school graduation.

IV. TURNING AROUND THE LOWEST-ACHIEVING SCHOOLS

Note: This Section of the MOU is only applicable to Participating LEAs with one or more Illinois Priority Schools, defined as "schools meeting the U.S. Department of Education's definition of 'persistently lowest-achieving schools,' and also includes other significantly underperforming schools that fall within the bottom 5% of student achievement statewide."

A list of Illinois Priority Schools is available at www.isbe.net/sfsf.

A. Turning Around the Lowest-Achieving Schools [RTTT Application Section (E)(2)]

Subject to the availability of funding through Race to the Top, the Section 1003(g) School Improvement Grant program, or targeted State funding, the LEA must participate in the Illinois Partnership Zone initiative **or** must separately undertake one of the four school intervention models identified by the U.S. Department of Education—turnaround model, restart model, school closure, or transformation model—in all Illinois Priority Schools within the LEA, as further described in Appendix B. The interventions must be implemented during the first three years of the Race to the Top grant period (i.e., the 10 – 11, 11 – 12, or 12 – 13 school years), with no less than a proportionate cohort of schools initiating interventions in each year. If the LEA can demonstrate that a prior intervention substantially aligned to one of the four school intervention models is demonstrating significant student achievement gains, as determined by ISBE, the LEA may receive funding to continue with that intervention. If the LEA chooses to participate in the Partnership Zone program outlined in Appendix C, it will be expected to undertake the District Activities and School Activities set forth in such Appendix.

B. School District Reorganization to Improve Student Outcomes [RTTT Application Section (E)(1)]

If an LEA is identified by ISBE as a candidate for reorganization using metrics that include, but are not limited to, low student achievement outcomes, the LEA will agree to undertake a reorganization study funded by the State.

PART B
PARTICIPATING LEA OPTIONAL REQUIREMENTS

This Part B of the Preliminary Scope of Work contains optional programs and opportunities for which Participating LEA participation is not expressly required.

The Participating LEA desires to pursue those programs and opportunities described below that are marked with an "X" in the box.

☐ **Locating Information WorkKeys Assessment/National Career Readiness Certificate Program**

Currently, the ACT WorkKeys Applied Math and Reading for Information assessments are included within Illinois' 11th grade assessment, the PSAE. The use of WorkKeys assessments in Illinois high schools can be enhanced, however, through implementation of ACT's National Career Readiness Certificate and promotion of access to the National Career Readiness System. This requires the State to offer the WorkKeys Locating Information assessment, in addition to both the Applied Math and Reading for Information assessments included within the PSAE.

Through Race to the Top funding, Illinois will provide funding for high schools in Participating LEAs to implement the Locating Information assessment and participate in the National Career Readiness Certificate program. Participating LEAs will be required to implement the Locating Information prior to the PSAE (either in the spring of the sophomore year, or fall of the junior year). That way, the second day of the PSAE, which incorporates the WorkKeys assessments and a State-developed science assessment, can result in achievement of a Career Readiness Certificate.

☐ **End-of-Course Exams in Algebra I and Algebra II**

End-of-course assessments present an opportunity for high schools to promote rigor and consistency in course instruction, and to address students' college- and work-readiness in critical subject areas. Through Race to the Top funding, the State of Illinois will support consortia of Participating LEAs that seek to develop and implement end-of-course assessments in Algebra I and Algebra II as a consistent measure of standards implementation in these core subject areas.

☐ **Increasing Teacher Expertise in Math and Science**

Teachers' academic expertise plays a key role in promoting comprehensive high school reform focused on increased student achievement in math and expansion of STEM-related opportunities. Through Race to the Top funding, the State will provide financial support for new programs undertaken by Participating LEAs to increase existing teachers' expertise in math and science. All Participating LEAs that use such funding to create new programs to increase existing teacher expertise in math and science may be required to demonstrate to ISBE (i) that an

increased number of teachers have completed additional math and/or science coursework, or (ii) that an increased number of teachers have endorsement(s) in math and/or science.

☐ **Using the State's National Board Certification Resources to Improve Teacher and Principal Effectiveness Across Middle and High Schools**

Through the support of Race to the Top funding, the State will draw together National Board Certified Teachers (NBCTs), classroom teachers (by grade level and content area), and school principals into collaborative teams to accelerate student achievement and create transformational change across middle and high schools. NBCTs, the National Board Certification process, the related program *Take One!*, and National Board Certification process for principals will be incorporated into a comprehensive approach to school improvement for participating high schools and feeder middle schools.

FOR THE PARTICIPATING LEA

_____

Authorized LEA Signature/Date

_____

Print Name/Title

EXHIBIT II
ILLINOIS PRIORITY SCHOOL REFORM COMMITMENTS

Note: This Section of the MOU is only applicable to Participating LEAs with one or more Illinois Priority Schools, defined as "schools meeting the U.S. Department of Education's definition of 'persistently lowest-achieving schools,' and also includes other significantly underperforming schools that fall within the bottom 5% of student achievement statewide."

A list of Illinois Priority Schools is available at www.isbe.net/sfsf.

A. DIRECT SUPPORT AND PRIORITY FUNDING

The State is establishing additional funding and funding priority committed to accelerating reform in Participating LEAs with one or more Priority Schools. These are LEAs in which dramatic acceleration of reforms will have the greatest impact on helping the State close the achievement gap. If the LEA Superintendent and the Local Teachers' Union Leader agree to all of the commitments described in Subsection (B) below, the State will:

1. Provide or fund the provision of technical assistance and support to the LEA for implementation of the reforms and systems described in this Exhibit II;
2. Establish funding at a level of at least 10% out of the 50% State Race to the Top allocation that will be dedicated solely to LEAs that agree to make the commitments set forth in this Exhibit II;
3. Prioritize participation in the Illinois Partnership Zone Program for LEAs that make all of these commitments; and
4. Pursue significant foundation funding that will be directed to LEAs that make all of these commitments. The final Race to the Top application may also include new programs for LEAs that make all of the priority funding commitments.

B. COMMITMENTS

To receive these additional funds and funding priority, for each Participating LEA, the LEA Superintendent and the Local Teachers' Union Leader must commit to use their best efforts to develop implementation plans for all of the following and include such plans in the LEA Plan described in Section I.D of the MOU. The State Board of Education reserves the right to determine the sufficiency of the LEA Plan for purposes of additional funding or priority funding. In the event any of these commitments are not sufficiently included in such Plan, the Participating LEA will no longer be eligible for such additional funding and funding priority.

1. Acceleration of Performance Evaluation Re-Design in Priority Schools

- The Participating LEA will implement in Priority Schools new local performance evaluation systems that meet the requirement set forth in Exhibit I, Part A, Section III of

this MOU by no later than the start of the 2011-2012 school year, with full District-wide scale-out of such evaluation systems no later than the following year.

- In its LEA Plan, the Participating LEA must set out in detail the plan and timeline for implementation of new performance evaluation systems.
- If the Participating LEA and the Local Teachers' Union are unable to reach an agreement regarding new performance evaluation systems at the time the LEA submits its LEA Plan, then the LEA will not be eligible for additional funding or funding priority under this Exhibit II.

2. Autonomy for Site-based Leadership of Illinois Priority Schools

[This item does not apply to school districts governed by Article 34 of the School Code, 105 ILCS 5/1-1 *et seq.*, due to their existing statutory autonomies.]

- To provide autonomy for the principals of Illinois Priority Schools to select and assign teachers to the school in order to establish an effective teaching staff as quickly as possible. Options for establishing an effective teaching staff include intensive professional development, filling of existing vacancies at the discretion of site-based leadership, relocation of staff through voluntary transfers, and involuntary transfers. As part of interventions in Illinois Priority Schools, the LEA must use locally adopted competencies to measure the effectiveness of staff who can work within the turnaround environment to meet the needs of students, screen all existing staff, and provide the principal with autonomy to determine which applicants will be accepted. If the LEA and the Local Teachers' Union cannot reach agreement on the foregoing issues by the time the LEA submits its LEA Plan, then the Participating LEA will not be eligible for additional funding or funding priority under this Exhibit II.
- In its LEA Plan, the LEA will specifically describe how such autonomy will be provided and include an agreed-upon negotiated waiver or other agreement providing flexibility from any inconsistent provisions in its collective bargaining agreement.

3. Illinois Partnership Zone Participation

- Participate in the Illinois Partnership Zone for one or more of the LEA's Priority Schools.
- In its LEA Plan, the LEA will specifically identify the schools to be included in the Illinois Partnership Zone and include an agreed-upon negotiated waiver or other agreement providing flexibility from any provisions in its collective bargaining agreement restricting the implementation of District Activities and School Activities expected for participation in the Partnership Zone. If the LEA and the Local Teachers' Union cannot reach agreement on such a waiver or other agreement by the time the LEA submits its LEA Plan, the LEA will not be eligible for additional funding or funding priority under this Exhibit II.

[signatures on following page]

SIGNATURES

LEA Superintendent (or equivalent authorized signatory) - required:

_____

Signature/Date

_____

Print Name/Title

Local Teachers' Union Leader – required:

The signature of the Local Teachers' Union Leader set forth below indicates that the Local Teacher Union's Leader will use best efforts to develop a negotiated, mutually-agreed upon implementation plan in the areas identified in Subsection B above as part of the LEA Plan described in Section I.D of the MOU. The signature of the Local Teachers' Union Leader does not constitute an agreement by the Local Union to: (i) reopen or otherwise modify any existing collective bargaining agreement unless and until a subsequent negotiated waiver or other agreement has been mutually agreed upon by the LEA and Local Union; or (ii) limit or waive its rights and protections under the Illinois Educational Labor Relations Act and other applicable law.

_____

Signature/Date

_____

Print Name/Title

EXHIBIT III
BASELINE INFORMATION

1. Does the Participating LEA's teacher evaluation plan incorporate student growth as a component?

   ☐ Yes

   ☐ No

   If yes, please describe:

2. Does the Participating LEA's principal evaluation plan incorporate student growth as a component?

   ☐ Yes

   ☐ No

   If yes, please describe:

3. Please describe any efforts taken during the last 5 years to turn around Illinois Priority Schools (persistently lowest-achieving schools) that substantially conform to one of the four school intervention models identified by the U.S. Department of Education: turnaround model, restart model, school closure, or transformation model. Please provide information including (a) the approach used, and (b) results and lessons learned to date.

APPENDICES

Appendix A	STEM Programs of Study and Learning Exchanges
Appendix B	School Intervention Models
Appendix C	Illinois Partnership Zone

EXHIBIT A
STEM PROGRAMS OF STUDY AND LEARNING EXCHANGES

STEM-Related Programs of Study

Programs of Study provide recommended sequences of courses aligned to particular Career Pathways which include opportunities to earn dual credit, secondary or post-secondary credentials or certificates, and an associate or bachelor's degree. The Illinois Programs of Study model provides students with rigorous course sequences that integrate and apply academic and technical content, as well as valuable information and experiences to help them make more well-informed choices regarding their education and future career goals.

Participating LEAs are required to establish two or more Programs of Study promoting science, technology, engineering, and mathematics (STEM) application areas (Agriculture and Natural Resources; Energy; Manufacturing; Information Technology; Architecture and Construction; Transportation Distribution and Logistics; Research and Development; and Health Sciences). The STEM-related Programs of study will be supported by the STEM Learning Exchanges, as described below. Race to the Top funding sub-granted to Participating LEAs can be used to implement STEM-related Programs of Study. Additionally, the State will work with school districts throughout the state to better engage students by providing them with more options to select Programs of Study that make relevant and rigorous real-world connections with their academic and career interests.

Programs of Study Guiding Principles

In 2008, Illinois adopted a framework for implementation and evaluation of Programs of Study that provides six guiding principles geared to creating career pathways that extend from the high school to the postsecondary level and employment so all students have the opportunity to transition to college and careers. The six guiding principles adopted by the state to implement Programs of Study are:

1. Programs of Study are developed, supported and led with guidance from collaborative partners.
2. Each and every student has access to educational opportunities and services that enable their success.
3. Education and training providers, with input from business and industry, enhance alignment that facilitates student preparation and transition through the educational pipeline.
4. Curriculum and pedagogy involve rigorous and relevant instruction that enhances learning and enables students to attain academic and technical standards and credentials.
5. Comprehensive and continuous professional development that impacts teaching and learning is delivered to enhance the recruitment, preparation and retention of qualified instructional and administrative staff.
6. Data are collected, shared, and utilized to improve outcomes and demonstrate accountability.

Each of Illinois' guiding principles is accompanied by a set of six to eight design elements that help practitioners understand what they need to do to implement Programs of Study.

STEM Learning Exchanges

Illinois will use Race to the Top Fund funding to provide seed funding to statewide STEM Learning Exchanges to promote the implementation of Programs of Study in critical STEM application areas. STEM Learning Exchanges will provide the curricular resources, assessments tools, professional development systems, and IT infrastructure necessary to develop STEM-related Programs of Study in the STEM areas listed in the MOU.

A separate STEM Learning Exchange will be established for each of the eight STEM areas. Each Exchange will create an open collaborative learning platform that:

- Provides students access to e-learning resources including on-line courses, assessment and feedback systems, reference materials, software tools (e.g., engineering design software) and data bases hosted throughout the world as well as connections to other students, teachers, and mentors and tutors (e.g., performance support systems);
- Provides students with project management resources to work in open collaborative teams to address real-world interdisciplinary problems developed by teachers as well as outside partners and sponsors including businesses, government, and non-profit organizations, as piloted in the Illinois Innovation Talent project;
- Provides students, teachers, adult mentors, and career counselors with career information and guidance resources;
- Provides teachers and instructional support staff the capacity to develop and share learning resources and participate in professional learning communities to support students within specific disciplines (e.g., engineering, math) and application areas (e.g., Health Sciences); and
- Includes curriculum options structured to qualify for dual credit in the various STEM-application areas.

The statewide partnerships for the STEM Learning Exchanges will include representatives from school districts, postsecondary institutions, businesses, industry experts, museums, research centers, and other community partners. Each partnership will be required to form a nonprofit corporate entity with representation from all of the partner entities responsible for overseeing and implementing the grant. In addition to establishing the STEM Learning Exchanges, the partnerships will be required to develop professional development and on-site technical assistance programs (similar to the Agricultural Education model). Each STEM Learning Exchange will be housed on the Learning and Performance Management System.

APPENDIX B

SCHOOL INTERVENTION MODELS

Intervention Model Definitions from the School Improvement Grants Application Section 1003(g) of the Elementary and Secondary Education Act

(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.

APPENDIX C
ILLINOIS PARTNERSHIP ZONE

In order for intervention efforts in Illinois Priority Schools to be successful and sustainable, high-quality and appropriately trained teachers and administrators need to be attracted and comprehensive support to educators must be provided. To this end, Illinois is part of a six-state collaboration to launch a "Partnership Zone" initiative to target failing schools and promote dramatic school turnaround. The Partnership Zone program is designed to turn around Illinois Priority Schools by combining school interventions with a robust human capital strategy, supported by a network of strong outside organizations. Partnership Zones incorporate the flexibility of charter schools and the benefits of the school district infrastructure and support.

The Illinois Partnership Zone will include school districts selected for participation based upon their:

- Need for intensive interventions in one or more schools within the district;
- Willingness to commit to the human capital and school intervention components of the statewide model; and
- Commitment of staff and funding resources to support the initiative, above and beyond the funding and resources provided by the State.

Participating districts will be required to have at least one Illinois Priority School, as further described in Section E(2)(i). Elementary and middle schools that feed into Illinois Priority Schools can also participate in the Illinois Partnership Zone.

For the Illinois Partnership Zone to have the desired intensity and scalability, ISBE will need to engage with external partners to provide on-the-ground support to participating districts and schools. The external partners will consist of "Lead Partners" who will lead and oversee the implementation of the intervention model in selected schools, and "Supporting Partners" who will help to implement the district-wide strategies and support the work of Lead Partners.

School districts that participate in the Illinois Partnership Zone will be eligible to receive:

- Support from Lead and Supporting Partners for school- and district-level activities;
- Significant funding through the State's allocation of School Improvement funds for the district's Illinois Partnership Zone schools; and
- Possible priority for additional resources through State grant programs and other federal programs.

Table B.1 below sets forth a proposed timeline for implementation of the Illinois Partnership Zone initiative.

Table B.1: Proposed Timeline for Partnership Zone Implementation*

October -December 2009	• Convene various stakeholders to discuss initiative; raise interest and concerns. • Examine requirements for Section 1003(g) School Improvement funds. • ISBE issues RFSP for and prequalifies Lead and Supporting Partners.
January - March 2010	• Illinois Partnership Zone districts selected by ISBE. • Illinois Partnership Zone districts form team consisting of Lead and Supporting Partners; develop detailed plan for Illinois Partnership Zone implementation.
March - April 2010	• ISBE reviews and approves or requires revisions to Illinois Partnership Zone proposals received in response to the Section 1003(g) School Improvement RFP. Upon approval, full Section 1003(g) School Improvement grant funds provided to implement Illinois Partnership Zone activities.
April - August 2010	• Intervention planning, capacity building, evaluation of existing staff, professional development.
September 2010 - August 2011	• First school year of implementation of the intervention model.
September 2011 - August 2012	• Second school year of implementation of the intervention model.
September 2012 - August 2013	• Third school year of implementation of the intervention model: • Phase-out of Lead Partner services commences.
September 2013 - August 2014	• Fourth year of implementation of the intervention model (contingent upon available funding): • Phase-out of Lead Partner services accelerates.

* Evaluation will be ongoing throughout the Illinois Partnership Zone project.

If ISBE receives Race to the Top or other State or federal funding, then the scope of the initiative could be expanded to include additional schools and districts. Additionally, funding could be used to expand and scale up services offered through the statewide system of support.

The following is a more detailed description of key components of the Partnership Zone program: Lead and Supporting Partners; Data Collection and Outcomes-based Measurements; the Illinois Partnership Zone Council; and District and School Illinois Partnership Zone Responsibilities and Activities.

A. Lead and Supporting Partners

The State Superintendent will pre-qualify Lead and Supporting Partners to work with participating districts and schools in specific regions. Pre-qualified partners will also be eligible to contract directly with ISBE. The State has already undertaken the Lead and Supporting Partner selection process. On October 15, 2009, ISBE issued a Request for Sealed Proposals for Lead and Supporting Partners to work in every region of the State. Pre-qualification determinations will be made in early January 2010.

B. Selection and Role of Lead Partners

Lead Partners must have a demonstrated record of successful and effective work with underperforming schools. Only one Lead Partner will be assigned to each participating school within a school district. In general, the Lead Partner's duties will include:

- Working with ISBE, the district and school, to perform a needs assessment of the district and school;
- Coordinating with all involved stakeholders on the development of an intervention plan and its implementation; and
- Implementing a coherent, whole school intervention model in partnership with the district.

The Lead Partner must carefully analyze a school's current programs to ensure coherence and a match between improvement priorities and budgeting. Based on the results of the needs assessment, the Lead Partner will implement the coherent, whole school plan that integrates the academic and other services of the school district and other entities working with the school. The Lead Partner must develop meaningful partnerships with parents, the business community, community organizations, State and local officials, and other stakeholders in formulating and implementing the plan. Operational support for the proposed school will be provided by the school district (e.g., special education and bilingual education services, transportation, food service, accounting, payroll, procurement, office services).

Districts will have flexibility in selecting a specific intervention model, as identified in the proposed federal regulations, to be implemented in coordination with a Lead Partner. However, the intervention model must be comprehensive and address all of the "Transformation Criteria" that address:

1. School culture and climate;
2. Developing teacher and school leader effectiveness;
3. Comprehensive instructional reform strategies;
4. Extended learning time; and
5. Providing operating flexibility.

Districts will be required to coordinate with Lead Partners to ensure appropriate and adequate autonomy over staff and leadership hiring, curriculum and instruction, scheduling, and budget in order to address each of the "Transformation Criteria" (see below). In many instances, these autonomies will require the negotiation and creation of waivers or memoranda of understanding providing flexibility from a collective bargaining agreement. The specific autonomies provided to each Lead Partner must be agreed to by the district and described in the detailed plan for Illinois Partnership Zone implementation developed by the Lead Partners and the district prior to receiving full funding from ISBE for implementation of the intervention model.

Each district's plan for Illinois Partnership Zone implementation, as well as contracts between the district and partners, must ensure shared accountability for the success of the

intervention model between the district and the partners. District contracts with partners must permit termination if specified outcomes are not being achieved.

C. Selection and Role of Supporting Partners

Supporting Partners will help implement the district-wide Illinois Partnership Zone strategies and support Lead Partners' work in selected schools. Supporting Partners will assist participating districts to develop district-wide human capital strategies to increase the effectiveness of their teacher and principal workforce. In addition to the human capital strategies, some districts also may need to engage in a broader range of capacity-building activities, such as improving district data use, board member training, or assistance and training on effective budgeting and fiscal management. The work of Supporting Partners will be focused only on the following areas:

- Human Capital
  Implement one or more of the possible Illinois Partnership Zone human capital strategies (see below), including negotiations of necessary flexibility from a collective bargaining agreement.

- District Capacity Building
  - Build school board capacity to oversee and implement Illinois Partnership Zone activities; and/or

  - Build the capacity of district superintendents, assistant superintendents, human resource directors, and/or fiscal officers to oversee and implement Illinois Partnership Zone activities.

Supporting Partners also will be expected to participate in the school and district needs assessment process administered by ISBE and Lead Partners, paying particular attention to the school's and district's needs regarding human capital and/or district capacity.

D. Data Collection and Outcomes-based Measurements

Lead and Supporting Partners will be required to participate in data collection, evaluation, and reporting activities specified by ISBE. In addition, ISBE will establish an outcomes-based measurement model and metrics for evaluating success by schools, districts, and partners. This model will ensure that every intervention plan defines realistic outcomes that will be achieved as the result of an intervention incorporating the "Transformation Criteria."

E. Illinois Partnership Zone Council

All Lead and Supporting Partners will be expected to designate a high-level individual from the organization to participate in a statewide Illinois Partnership Zone Council. The council will also include representatives from participating districts and schools and other stakeholders identified by ISBE.

The council will provide information and input to the State Superintendent and/or the Superintendent's designees in the areas of:

- Progress of the statewide Partnership Zone initiative;
- Proposed State legislative and regulatory changes that can help support the Illinois Partnership Zone's human capital and school intervention efforts; and
- Establishment of a statewide information and collaboration system for all the Illinois Partnership Zone participants to share challenges and strategies for success, establish learning communities with participants from various districts, and broadcast the lessons learned from the Illinois Partnership Zone schools to a much broader audience. This system should provide for frequent updates and feedback from all of the Illinois Partnership Zone sites and partners to assist ISBE's work in implementing the Illinois Partnership Zone.

F. District and School Illinois Partnership Zone Responsibilities and Activities

In order to participate in the Illinois Partnership Zone, each district must demonstrate a commitment from its respective school board and district superintendent. The district must also demonstrate either a commitment from union leadership or evidence of efforts to meaningfully and in good faith engage union leadership and teachers in the development of its plan for collaborating with the union in implementation of the Partnership Zone program.

Once identified for participation in the Illinois Partnership Zone, school districts will have flexibility to select one or more Lead Partners that have agreed to both work in the geographic area of the district and provide an intervention approach determined to be necessary by the district and/or ISBE. School districts may have flexibility in selecting from Supporting Partners that have agreed to work in the geographic area of the district, or ISBE may condition participation in the Illinois Partnership Zone on a district's agreement to work with certain Supporting Partners that address identified district needs.

1. *District Activities*

a. Districts must implement data and performance management systems that support school- and district-level Illinois Partnership Zone activities and permit necessary reporting to the State.

b. Districts must focus on student transitions throughout the P-20 spectrum. The elementary school effort must include a focus on establishing early learning programs for underserved areas and populations. Separate elementary and high school districts must align initiatives to support the Illinois Partnership Zone effort. Partnerships also must be formed with community college districts and colleges and universities to address barriers to postsecondary access. *A separate high school district and its feeder elementary districts will not be eligible to participate unless the districts align their school improvement and intervention activities.*

c. The district's board of education, superintendent, and, where appropriate, union leadership will be expected to commit to implementing certain Illinois Partnership Zone human capital strategies, in close collaboration with Lead Partners and Supporting Partners. While these strategies will initially be targeted to the Illinois

Partnership Zone schools, the objective will be to eventually implement these strategies on a broader scale throughout the district.

d. Participating districts must make the following commitments to support the Illinois Partnership Zone:

- Establish district-wide leadership reporting directly to the local superintendent.

- Provide maximum freedom from district-wide mandates for Illinois Partnership Zone schools, particularly those that affect curriculum/professional development; the daily schedule; and calendar, budgeting, and improvement planning processes.

- Negotiate and create waivers or MOUs providing flexibility from the collective bargaining agreement necessary to implement the Illinois Partnership Zone.

- Provide funding necessary to support the Illinois Partnership Zone above and beyond the funding levels committed by the State.

- At least twice a year, convene the leadership of Illinois Partnership Zone schools to reflect on the lessons, discuss various blockages and achievements, and share lessons learned with the entire district and community.

- Support statewide efforts through participation in the Illinois Partnership Zone Council, provide data to evaluate the initiative, and share best practices and provide support for other districts in the statewide Illinois Partnership Zone.

e. Certain districts seeking to participate in the Illinois Partnership Zone may have a record of noncompliance or a lack of capacity at the board and/or administrative leadership levels that will necessitate greater ISBE oversight for implementation. For such a district, ISBE may require, as a condition of participation, that the district grant ISBE the right to oversee certain district functions and/or pre-approve certain district actions critical to the success of the Illinois Partnership Zone. The district may earn greater autonomy based upon demonstrated capacity and results.

2. School Activities

a. For each participating school, the district will be required to enter into a partnership with Lead Partner(s) and, if appropriate, Supporting Partner(s) to (i) perform a needs assessment of the school; (ii) coordinate with the Partners and all involved stakeholders on the development of an intervention plan and its implementation; and (iii) support the work of the Partners in implementing a coherent, whole school intervention model.

b. The district must commit to working with its Lead Partner(s) and, if appropriate, Supporting Partner(s) to establish an effective leadership team at Illinois Partnership Zone schools. The Lead Partner must have the ability to either select or pre-approve the proposed leadership team. Whenever possible, the leadership team should be in

place in the second semester of the school year preceding full implementation of the intervention model so that the team has the opportunity to fully evaluate existing staff.

c. Either the Lead Partner or the principal designated by the district must have authority to select and assign teachers to the school in order to establish an effective teaching staff as quickly as possible. Intervention models do not have to meet any specified levels of staff replacement; rather, operating flexibility must be provided to the Lead Partner or principal to determine how best to achieve the desired outcome of an effective teaching staff. Establishment of an effective teaching staff may be achieved through intensive professional development, filling of existing vacancies, relocation of staff through voluntary transfers, or through involuntary transfers. After commencement of the intervention model, the Lead Partner or principal designated by the district must approve all new hires made for teachers and administrators.

Illinois Partnership Zone: Transformation Criteria

1. School culture and climate.

A. Establish a safe, orderly environment that is free from threat of physical harm and conducive to teaching, learning, and schoolwide programs and policies to help maintain this environment.

B. Create a climate of high expectations for success.

C. Clearly articulate the school's mission so that staff share an understanding of and commitment to the instructional goals, priorities, assessment procedures, and accountability.

D. Provide ongoing mechanisms for family and community engagement. Ensure that parents understand and support the school's basic mission and are given the opportunity to play an important role in helping the school to achieve this mission.

E. Provide wrap-around services for low-income students so educators can focus on teaching and learning while ensuring students' social, emotional, and physical needs are met.

2. Developing teacher and school leader effectiveness.

A. Designate a principal or other school-level leader who will act as an instructional leader. Depending on the intervention model, the "school-level leader" may be a principal designated by the district, a leader working under the direction of a Lead Partner, or a person hired by the Lead Partner.

The model must either:

- Replace the principal who led the school prior to commencement of the transformation model; or
- Use a fair and consistent method to evaluate the effectiveness of the existing principal and determine whether the principal can serve as the instructional leader for the intervention.

B. Over the course of the intervention, the school must make a transition to a distributed leadership model with a highly capable leadership team working to build a cohesive, professional teaching culture. The plan for a distributed

leadership team must include the school-level leader and teachers with augmented school roles.

C. **In coordination with the Lead Partner, the district and school-level leader must use evaluations that are based in significant measure on student growth:**
   - to improve teachers' and school leaders' performance;
   - identify and reward effective performance; and
   - identify and address ineffective performance.

D. **Provide relevant, ongoing, high-quality job-embedded professional development.**

E. **Implement strategies designed to recruit, place, and retain high-quality staff, including intensive induction and mentoring support for teachers.**

3. Comprehensive instructional reform strategies.

A. **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 the Illinois Learning Standards. The instructional programs must include:**
   - development and use of frequent formative assessments permitting rapid-time analysis, feedback, and targeted instruction;
   - other data-driven instructional systems and strategies.

B. **Differentiate instruction to meet students' needs, including personalized academic and non-academic support services.**

C. **Integrate all programs that have an impact on instruction:**
   - Identify all State, district, and school-level instructional and professional development programs;
   - Determine whether each program will be eliminated or integrated with the intervention model; and
   - Ensure all remaining and new programs directly align with the objectives and structure of the intervention model.

4. Extending learning time.

A. **Provide more time for students to learn core academic content by:**
   - expanding the school day, the school week, or the school year;
   - increasing instructional time for core academic subjects during the school day; and
   - allocating a significant amount of classroom time to instruction in the essential skills.

B. **Provide more time for teachers to collaborate.**

C. **Provide more time for enrichment activities for students.**

5. Providing operating flexibility.

Give the school sufficient operating flexibility to implement fully a comprehensive approach to substantially improve student achievement outcomes. In particular, the school-level leader must have:

- **Authority to select and assign staff to the school;**
- **Authority to control school calendar and scheduling; and**
- **Control over financial resources necessary to implement the intervention model.**

Illinois Partnership Zone: Human Capital Strategies

1. Reform district recruitment and hiring policies to support the work of the Illinois Partnership Zone.

2. Establish placement policies that support Illinois Partnership Zone schools:

   - Prioritize interview and hiring decisions for Illinois Partnership Zone schools,
   - Prohibit forced placements into Illinois Partnership Zone schools.

3. Establish incentives for administrators and teachers to work in Illinois Partnership Zone schools, and work with Lead and Supporting Partners to bring top talent to these schools.

4. Establish compensation systems in Illinois Partnership Zone schools that provide performance-based incentives (either individual or collective), particularly if State or federal resources are available to support such programs.

5. Establish an intensive induction and mentoring program for Illinois Partnership Zone teachers and administrators.

6. Establish meaningful performance evaluation and development systems that fairly and accurately differentiate teachers based in part on student achievement, and train administrators and other evaluators in its use.

7. Establish meaningful principal and other school administrator evaluation systems that incorporate considerations of school climate and are based, in part, on student achievement.

8. Establish one or more residency sites within the district where teachers and administrators can participate in an intensive residency program preparing them to serve in Illinois Partnership Zone schools.

   - ISBE may work with the districts and Lead and Supporting Partners to establish a statewide program to attract the "best of the best" from traditional undergraduate, alternative programs, and the existing educator workforce to work in low-performing schools.
   - Eventually, these residency sites will help provide a pipeline of educators to support both existing and new Illinois Partnership Zone schools.

9109957_v2

Appendix A1-2

Variations Used in the Chicago Public Schools Participating LEA MOU

I. Scope of Work and Nature of LEA Requirements and Commitments

* * *

C. Illinois Priority School Reform Commitments. Exhibit II (Illinois Priority School Reform Commitments), identifies commitments the LEA Superintendent and Local Teacher Union's Leader must make in order to receive the benefits identified on Exhibit II. The Illinois Priority School Reform Commitments are relevant only to Participating LEAs with one or more "Illinois Priority Schools", ~~**i.e. all schools meeting**~~defined for the purposes of this MOU as "Tier I Schools" as such term is defined by the U.S. Department of Education~~**'s definition of "persistently lowest-achieving schools," and also includes other significantly underperforming schools that fall within the bottom 5% of student achievement statewide.**~~ in its final 1003(g) School Improvement Grant requirements. Tier I schools are identified by ISBE on www.isbe.net/sfsf.

* * *

Explanation for Variation:

The broader definition of "Illinois Priority Schools" includes more than twice the number of "Tier 1" schools in CPS, and would have overly extended CPS' capacity to effectively intervene in these schools. Therefore, the federal definition of "Tier I Schools" is used to define CPS' obligations under Section I(C) of the MOU. CPS does not have any Tier II Schools. "Tier I" and "Tier II" are defined in accordance with the definitions used by the U.S. Department of Education in its final 1003(g) School Improvement Grant Program.

* * *

III. GREAT TEACHERS AND LEADERS

A. Improving Teacher and Principal Effectiveness Based on Performance [RTTT Application Section (D)(2)]

The State will work with Participating LEAs on the development of redesigned local performance evaluation systems for principals and teachers. **Except as otherwise provided in the Performance Evaluation Reform Act, SB 315 ("PERA"), these** new evaluation systems must be implemented by the beginning of the 2012 – 2013 school year ~~and~~**. The new evaluation systems** will be based on the following core principles and assumptions:

Summative and formative evaluations for teachers and principals should be based on measures of both professional practice and student growth.

Effective evaluation includes clear expectations for both professional practice and student growth, clear feedback on performance, and a clear plan for building on strengths and addressing short-comings.

Teacher practice can be measured by well-trained observers using observation-based frameworks that define and describe the elements of effective teaching practice; principal practice can also be measured by well-trained observers using observation-based frameworks that describe the elements of effective school leadership practice, school climate surveys and other tools.

Individual student growth can be measured over time with multiple measures that include standardized formative and summative tests, curriculum- and course-based assessments and individual student work.

Key components of principal and teacher evaluation systems include the following:

At least 50% of teacher and principal performance evaluations will be based on student growth.

Measures of student growth for both teachers and principals will be developed locally, within parameters set by the State to ensure validity and reliability. The process to establish these parameters will include extensive collaboration with school district management, teachers unions, other stakeholders, other states, and technical experts.

Teacher practice will be measured based on Danielson's "Framework for Teaching" or another comparable framework approved in advance by the State. Principal practice will be measured using a framework(s) to be identified by the State.

At least until a new State student assessment system aligned with the revised Learning Standards has been implemented, **and except as otherwise provided in PERA,** State assessments cannot be used as the **only** measure of student growth in teacher performance evaluations.

All teacher and principal evaluations must include a minimum of at least two student growth measures**, except as otherwise provided in PERA**.

* * *

Explanation for Variation:

PERA provides that CPS will implement teacher and principal evaluation systems that incorporate student growth as a significant factor in at least 300 schools by September 1, 2012 and in all remaining schools by September 1, 2013. This phase-in approach was proposed by the Chicago Teachers Union at a meeting with state political leaders on January 5, 2010. In that meeting, participants reached a compromise on the bifurcated schedule. Although it is the intention of CPS to implement the systems required by PERA as early as possible district-wide,

both CPS and ISBE agreed that the MOU must accurately reflect the agreement reached on January 5, 2010 and the final draft of PERA.

PERA also provides that CPS may continue to use annual state assessments as the sole measure of student growth. After multiple years and a significant investment in development, CPS currently uses state assessments as the basis for existing value-added growth measures. For example, these growth models are used to determine teacher incentive awards in the Teacher Advancement Program pilot which now operates in 30 schools, with 10 additional schools projected by 2011. Value-added growth models are also incorporated into the district's existing principal evaluation process. The terms of the MOU were revised for consistency with PERA and current CPS practice.

Appendix A1-3

Detailed Table (A)(1): Participating LEAs

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Abingdon CUSD #217	3	783	360	Y	Y	N	Y	N/A	N/A
Adlai E. Stevenson HS Dist. #125	1	4419	154	Y	N	N	Y	N/A	N/A
Albers School	1	192	24	Y	Y	N	Y	N/A	N/A
Alden-Hebron School Dist. #19	3	438	64	Y	Y	Y	Y	N/A	N/A
Alton CUSD #11	9	6444	3463	Y	Y	N	Y	N/A	N/A
Amboy CUSD #272	3	910	278	Y	Y	N	Y	N/A	N/A
Anna Jonesboro Community HS	1	547	196	Y	Y	N	Y	N/A	N/A

[1] L2 Super LEAs must participate in all applicable Plan Criteria. In addition, Super LEAs commit to three critical actions specified in Exhibit II of the Participating LEA MOU relevant to Criteria (D)(2) and (E)(2), as more fully described in Section (A)(1) of the application.

[2] All Participating LEAs in Illinois must participate in all Plan Criteria included within the Mandatory section of the MOU (Exhibit I), although some requirements are only applicable to certain grade levels.

** Note re: Braceville SD #75 and Cary CCSD #26: Because of late submission of Participating LEA MOU, data regarding these two Participating LEAs was not included in the Performance Measures tables for Sections (D)(2) and (D)(3) in this application.

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Annawan CUSD #226	2	431	98	Y	N	Y	Y	N/A	N/A
Antioch CCSD #34	5	3095	522	Y	Y	N	Y	N/A	N/A
Aptakisic-Tripp Consolidated School Dist. #102	4	2017	118	Y	Y	N	Y	N/A	N/A
Arlington Heights S D #25	9	5141	339	Y	N	N	Y	N/A	N/A
Aurora Dist. East #131	16	12767	8933	Y	Y	N	Y	N/A	N/A
Aurora West Dist. #129	16	11953	5112	Y	Y	Y	Y	N/A	N/A
Barrington 220 CUSD	11	9065	1281	Y	Y	Y	Y	N/A	N/A
Bartonville Dist. #66	1	286	136	Y	Y	N	Y	Y*	N/A
Batavia Public USD #101	8	6209	457	Y	N	N	Y	Y*	N/A
Beach Park CCSD #3	5	2618	966	Y	Y	Y	Y	N/A	N/A
Beecher Community School District 200U	3	1093	63	Y	N	N	Y	N/A	N/A
Belleville Twsp. HS Dist #201	2	4968	1628	Y	Y	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Bellwood School Dist. #88	6	2722	2487	Y	Y	N	Y	N/A	N/A
Belvidere C.U.S.D. #100	11	9024	3396	Y	Y	N	Y	N/A	N/A
Benjamin Elementary School Dist. #25	2	840	19	Y	Y	Y	Y	N/A	N/A
Bensenville Dist. #2	2	2119	1040	Y	Y	N	Y	N/A	N/A
Berwyn North Dist. #98	4	3330	2675	Y	N	N	Y	N/A	N/A
Berwyn South School Dist. #100	8	3650	2400	Y	Y	Y	Y	Y* N/A	Y* N/A
Bethalto CUSD #8	6	2705	819	Y	Y	N	Y	N/A	N/A
Big Hollow School District #38	3	1552	201	Y	N	N	Y	N/A	N/A
Bloom Township #206	2	3387	2453	Y	Y	Y	Y	N/A	N/A
Bloomington Public Schools District 87	8	5304	2622	Y	Y	Y	Y	Y* N/A	Y* N/A
Braceville SD #75**	1	156	36	Y	N	N	Y	N/A	N/A
Bradford CUSD #1	2	241	76	Y	Y	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Bremen CHSD #228	4	5154	1331	Y	Y	N	Y	Y*	N/A
Brooklyn Unit Dist. 188	3	187	183	Y	Y	N	Y	N/A	N/A
Brownstown C.U.S.D. #201	3	371	183	Y	Y	N	Y	N/A	N/A
Buncombe Grade School #43	1	65	26	Y	Y	Y	Y	N/A	N/A
Burnham 154 1/2	1	218	197	Y	Y	Y	Y	N/A	N/A
Bushnell-Prairie City C.U.S.D. #170	3	841	379	Y	N	N	Y	N/A	N/A
Butler School Dist. 53	2	440	1	Y	Y	Y	Y	N/A	N/A
Byron C.U.S.D. #226	3	1680	209	Y	Y	Y	Y	N/A	N/A
Cahokia Unit School Dist. #187	11	4233	3499	Y	Y	N	Y	N/A	N/A
Cairo School Dist. #1	3	581	579	Y	Y	N	Y	N/A	N/A
Calumet Public School Dist. #132	3	1228	860	Y	Y	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Carbondale Community HS Dist. #165	1	1125	485	Y	Y	Y	Y	N/A	N/A
Carbondale E.S.D. No. 95	4	1364	852	Y	Y	Y	Y	N/A	N/A
Carlinville CUSD #1	5	1463	544	Y	Y	N	Y	N/A	N/A
Carrollton CUSD #1	2	688	208	Y	Y	N	Y	Y*	N/A
Carterville CUSD #5	3	1788	603	Y	N	N	Y	N/A	N/A
Carthage ESD #317	2	460	174	Y	N	N	Y	N/A	N/A
Cary CCSD #26**	6	3355	355	Y	N	N	Y	N/A	N/A
CCSD #93	8	4074	574	Y	Y	N	Y	Y	N/A
Central School Dist. #104	2	510	205	Y	Y	N	Y	N/A	N/A
Century CUSD #100	2	453	344	Y	N	N	Y	Y*	N/A
Champaign Unit 4	16	8824	4156	Y	Y	N	Y	N/A	N/A
Chaney-Monge SD #88	2	457	254	Y	Y	N	Y	N/A	N/A
Chester CUSD #139	2	995	403	Y	Y	N	Y	N/A	N/A
Chicago Heights School Dist. 170	11	3229	2977	Y	Y	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Chicago Public Schools (The Board of Education of the City of Chicago)[3]	606	409055	341423	Y	N	N	Y	N/A	N/A
CHSD #117 – Lake Villa	2	2759	241	Y	Y	Y	Y	N/A	N/A
Cicero District #99	16	13713	11612	Y	Y	Y	Y	N/A	N/A
Clay City CUSD #10	3	354	142	Y	Y	N	Y	Y*	N/A
Coal City School Dist. #1	5	2141	311	Y	Y	Y	Y	N/A	N/A
Community Consolidated School Dist. #59	14	6045	2410	Y	Y	N	Y	N/A	N/A
Community Consolidated School Dist. 62	11	4687	1686	Y	N	N	Y	N/A	N/A
Community H. S. Dist. #128	2	3359	183	Y	Y	N	Y	N/A	N/A

[3] The Chicago Public Schools Participating LEA MOU deviates from the standard Participating LEA MOU to address several unique circumstances in that district. The minimal deviations included in the CPS Participating LEA MOU are identified and described in Appendix A1-2.

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superintendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superintendent	Local Teacher's Union
Community H. S. Dist. #155	4	7048	453	Y	N	N	Y	N/A	N/A
Community High School #94	1	2032	505	Y	Y	Y	Y	N/A	N/A
Community High School Dist. #218	3	5657	1890	Y	Y	Y	Y	N/A	N/A
Community High School Dist. 99	2	5298	741	Y	Y	N	Y	N/A	N/A
Community Unit School Dist. #200	19	13299	2724	Y	Y	N	Y	N/A	N/A
Community Unit School Dist. #300	25	19329	6231	Y	Y	Y	Y	Y	Y
Consolidated School Dist. #158	8	8568	482	Y	N	N	Y	N/A	N/A
Cook County School Dist. #104 (Summit)	5	1662	1131	Y	Y	Y	Y	N/A	N/A
Cook County School Dist. #130	11	3743	3089	Y	Y	N	Y	N/A	N/A
Cornell CCSD #426	1	108	44	Y	N	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Country Club Hills School Dist. #160	3	1519	871	Y	Y	N	Y	N/A	N/A
Crete-Monee SD 201U	8	4747	2752	Y	Y	N	Y	N/A	N/A
Crystal Lake School Dist. #47	12	8861	1098	Y	Y	N	Y	N/A	N/A
CUSD #7 Gillespie	3	1327	703	Y	N	N	Y	N/A	N/A
Cypress Grade School Dist. #64	1	130	56	Y	N	N	Y	N/A	N/A
Dallas ESD #327	1	227	129	Y	N	N	Y	N/A	N/A
Dalzell Grade School	1	58	13	Y	Y	Y	Y	N/A	N/A
Danville School Dist. #118	4	6219	4343	Y	Y	N	Y	N/A	N/A
Darien District #61	3	1636	316	Y	Y	N	Y	N/A	N/A
De Pue UCS #103	2	474	300	Y	Y	Y	Y	Y	Y
Decatur SD 61	21	8558	5622	Y	Y	Y	Y	Y	Y
Deerfield Schools #109	6	3198	11	Y	Y	N	Y	Y*	N/A
DeKalb CUSD #428	12	5875	2247	Y	Y	N	Y	N/A	N/A
Delavan CUSD #703	3	486	133	Y	Y	Y	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Desoto CCSD #86	1	275	176	Y	N	N	Y	N/A	N/A
Diamond Lake School Dist. #76	3	1171	509	Y	Y	N	Y	N/A	N/A
District 50 Schools	2	817	342	Y	Y	N	Y	N/A	N/A
Dixon Unit Schools #170	5	2870	1129	Y	N	N	Y	N/A	N/A
Dolton School District 148	10	2492	2225	Y	Y	Y	Y	N/A	N/A
Dongola Unit #66	3	325	176	Y	N	N	Y	N/A	N/A
Donovan CUSD #3	3	445	125	Y	Y	Y	Y	N/A	N/A
Downers Grove Grade School Dist. #58	13	4962	330	Y	N	N	Y	N/A	N/A
DuPage H.S. Dist. #88	2	3938	1051	Y	Y	Y	Y	N/A	N/A
DuQuoin CUSD #300	3	1467	553	Y	Y	N	Y	N/A	N/A
East Alton Dist. #13	2	714	460	Y	Y	N	Y	Y*	N/A
East Maine School Dist. #63	7	3472	1335	Y	N	N	Y	N/A	N/A
East Prairie Dist. #73	1	505	67	Y	N	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
East Richland CUSD #1	3	2087	958	Y	Y	Y	Y	N/A	N/A
East St. Louis School Dist. #189	20	7520	4981	Y	Y	Y	Y	N/A	N/A
Eastland CUSD #308	3	737	254	Y	Y	Y	Y	N/A	N/A
Edwardsville Dist. #7	13	7514	1156	Y	Y	N	Y	N/A	N/A
Egyptian CUSD #5	3	618	306	Y	N	N	Y	N/A	N/A
El Paso Gridley CUSD #11	5	1274	324	Y	N	N	Y	N/A	N/A
Elmhurst Dist. #205	12	7905	623	Y	Y	N	Y	Y*	N/A
Elmwood Park C.U.S.C. #401	5	2812	919	Y	N	N	Y	N/A	N/A
Elverado CUSD #196	4	502	284	Y	Y	N	Y	N/A	N/A
Elwood CCSD #203	1	423	53	Y	Y	Y	Y	N/A	N/A
ESD 159	5	2107	971	Y	Y	N	Y	N/A	N/A
Eswood SD #269	1	99	19	Y	Y	N/A	Y	N/A	N/A
Eureka CUSD #140	5	1658	345	Y	Y	N	Y	N/A	N/A
Evanston Twsp. H.S. Dist. #202	1	2895	1132	Y	N	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Evanston/Skokie Dist. #65	15	6158	2496	Y	Y	N	Y	N/A	N/A
Evergreen Park Elem. SD #124	5	1878	544	Y	Y	N	Y	Y*	N/A
Evergreen Park High School Dist. #231	1	915	240	Y	Y	Y	Y	N/A	N/A
Ewing-Northern C.C.S.D. #115	1	231	112	Y	Y	N	Y	N/A	N/A
Fairmont School District #89	1	301	253	Y	Y	N	Y	N/A	N/A
Farmington Central CUSD #265	3	1517	525	Y	N	N	Y	N/A	N/A
Fenton Community H S Dist. #100	1	1416	457	Y	N	N	Y	N/A	N/A
Fisher CUSD #1	2	625	136	Y	Y	N	Y	N/A	N/A
Flossmoor School Dist. 161	5	2539	601	Y	Y	N	Y	N/A	N/A
Ford Heights S.D. #169	2	603	588	Y	Y	Y	Y	N/A	N/A
Forest Ridge School Dist. #142	4	1674	345	Y	Y	N	Y	N/A	N/A
Forrestville Valley #221	3	927	186	Y	N	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Fox Lake Grade School D. 114	2	851	242	Y	Y	Y	Y	N/A	N/A
Fox River Grove SD #3	2	545	74	Y	Y	Y	Y	Y* N/A	Y* N/A
Frankfort CC District 157-C	3	2454	29	Y	Y	N	Y	N/A	N/A
Franklin Park Dist. #84	4	1316	343	Y	N	N	Y	N/A	N/A
Freeport School Dist. #145	9	4268	2388	Y	Y	Y	Y	N/A	N/A
Gallatin County CUSD #7	3	795	316	Y	N	Y	Y	N/A	N/A
Gardner-South Wilminton H S Dist. #73	1	211	35	Y	Y	N	Y	Y*	N/A
Gavin School Dist. #37	2	988	382	Y	Y	Y	Y	N/A	N/A
Geneva CUSD #304	8	5963	211	Y	Y	Y	Y	N/A	N/A
Genoa-Kingston CUSD #424	5	2058	516	Y	Y	N	Y	N/A	N/A
Germantown Hills #69	2	921	72	Y	Y	Y	Y	N/A	N/A
Giant City CCUSD #130	1	296	97	Y	Y	N	Y	N/A	N/A
Gibson City Melvin Sibley Unit 5	3	1115	323	Y	N/A	N/A	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Glenbard Dist. 87	4	8829	1386	Y	Y	N	Y	N/A	N/A
Glenview School Dist. #34	8	4440	679	Y	Y	N	Y	N/A	N/A
Golf SD #67	2	552	77	Y	Y	Y	Y	N/A	N/A
Gower School Dist. #62	2	940	89	Y	Y	N	Y	N/A	N/A
Granite City CUSD #9	10	6847	3709	Y	N	N	Y	N/A	N/A
Grant CHSD #124	1	1578	303	Y	Y	Y	Y	N/A	N/A
Grant Park CUSD #6	2	586	124	Y	Y	N	Y	N/A	N/A
Grayslake CCSD #46	8	4243	720	Y	Y	N	Y	Y*	N/A
Grayslake H.S. Dist. #127	2	2708	276	Y	N	N	Y	N/A	N/A
Gurnee School Dist. #56	4	2164	388	Y	N	N	Y	N/A	N/A
Hamilton County Schools CUSD #10	3	1159	467	Y	Y	N	Y	N/A	N/A
Harlem UD #122	11	7786	3060	Y	Y	N	Y	N/A	N/A
Harmony Emge SD #175	2	724	328	Y	Y	N	Y	N/A	N/A
Harrison School Dist. 36	1	469	133	Y	Y	N	Y	Y*	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Havana School Dist. #126	3	1067	507	Y	N	N	Y	N/A	N/A
Hiawatha CUSD #426	2	592	175	Y	Y	N	Y	N/A	N/A
Highland CUSD #5	7	3072	433	Y	Y	N	Y	Y*	N/A
Hillsboro CUSD #3	5	2027	894	Y	Y	N	Y	N/A	N/A
Hinckley-Big Rock CUSD #429	3	765	53	Y	Y	N	Y	N/A	N/A
Hinsdale Township H.S. Dist. 86	2	4510	323	Y	Y	N	Y	N/A	N/A
Homewood SD #153	4	1966	423	Y	N	N	Y	N/A	N/A
Homewood-Flossmoor H.S. Dist. 233	1	2873	406	Y	Y	N	Y	N/A	N/A
Hononegh Dist. #207	1	2089	267	Y	N	N	Y	N/A	N/A
Hoover-Schrum SD 157	2	942	793	Y	N	N	Y	N/A	N/A
Illini West HSD #307	1	459	144	Y	N	N	Y	N/A	N/A
Illinois Valley Central Dist. #321	6	1998	392	Y	Y	Y	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superintendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superintendent	Local Teacher's Union
Indian Prairie School Dist. 204	29	28773	2152	Y	Y	N	Y	N/A	N/A
Iroquois West #10	5	910	424	Y	Y	N	Y	Y*	N/A
Itasca School Dist. #10	3	965	51	Y	Y	N	Y	N/A	N/A
J. S. Morton High School #201	3	8300	6050	Y	Y	Y	Y	N/A	N/A
Jacksonville School District #117	9	3462	1675	Y	Y	N	Y	N/A	N/A
Johnsburg Dist. #12	4	2559	309	Y	N	N	Y	Y*	N/A
Joliet Public School Dist. #86	19	10316	6961	Y	Y	Y	Y	N/A	N/A
Kaneland School District #302	6	4581	335	Y	N	N	Y	N/A	N/A
Kankakee School Dist. #111	11	5274	4261	Y	Y	Y	Y	Y	Y
Keeneyville School Dist. #20	3	1653	617	Y	Y	Y	Y	Y* N/A	Y* N/A
Kenilworth SD No. 38	1	573	0	Y	Y	N	Y	N/A	N/A
Kewanee CUSD #229	5	1723	1168	Y	Y	Y	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Kildeer Countryside CCSD 96	7	3276	157	Y	Y	Y	Y	N/A	N/A
La Harpe CSD #347	2	250	98	Y	N	N	Y	N/A	N/A
LaGrange Highlands School District 106	2	904	6	Y	Y	N	Y	N/A	N/A
LaGrange South Dist. 105	5	1292	444	Y	Y	Y	Y	N/A	N/A
Lake Bluff ESD #65	3	976	84	Y	N	N	Y	N/A	N/A
Lake Forest H.S. Dist. 115	1	1749	4	Y	N	N	Y	Y*	N/A
Lake Forest S.D. #67	5	2140	20	Y	N	N	Y	Y*	N/A
Lake Villa CCSD #41	5	3233	119	Y	Y	N	Y	N/A	N/A
Lake Zurich CUSD #95	9	6288	401	Y	N	N	Y	Y*	N/A
Lebanon CUSD #9	3	670	201	Y	Y	N	Y	N/A	N/A
Lemont Twsp. H S Dist. #210	1	1468	51	Y	N	Y	Y	N/A	N/A
Libertyville School Dist. #70	5	2605	98	Y	Y	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Limestone Community High #310	2	1146	319	Y	N	N	Y	Y*	N/A
Lincoln Community HS #404	1	889	254	Y	Y	Y	Y	N/A	N/A
Lincoln-Way CHSD #210	3	7064	353	Y	Y	N	Y	N/A	N/A
Lindop SD #92	1	443	262	Y	Y	N	Y	N/A	N/A
Litchfield CUSD #12	5	1372	567	Y	Y	N	Y	N/A	N/A
Lockport Elementary School Dist. #91	2	648	59	Y	Y	Y	Y	N/A	N/A
Lockport THSD #205	1	3900	336	Y	Y	N	Y	N/A	N/A
Lostant CUSD #425	1	94	26	Y	Y	N	Y	N/A	N/A
Lyon Twsp HS Dist. #204	1	3753	352	Y	Y	Y	Y	N/A	N/A
Lyons Elementary SD #103	6	2345	1196	Y	Y	Y	Y	N/A	N/A
Macomb CUSD #185	4	1795	602	Y	Y	N	Y	N/A	N/A
Maine Twsp HSD #207	3	6840	1443	Y	Y	N	Y	Y*	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Manhattan School Dist. #114	3	1268	120	Y	N	N	Y	N/A	N/A
Mannheim District 83	4	2739	1542	Y	Y	N	Y	N/A	N/A
Manteno C.U.S.D. #5	4	2198	420	Y	Y	Y	Y	N/A	N/A
Marengo Community HS Dist. #154	1	894	133	Y	Y	N	Y	N/A	N/A
Marengo Union Elementary #165	2	1174	417	Y	Y	N	Y	N/A	N/A
Massac Unit #1	7	2334	1071	Y	Y	Y	Y	N/A	N/A
Matteson School District 162	7	3284	2079	Y	Y	N	Y	N/A	N/A
Maywood-Melrose Park-Broadview District 89	10	5591	4127	Y	Y	Y	Y	N/A	N/A
McLean County Unit Dist. No. 5	21	12593	2965	Y	Y	Y	Y	N/A	N/A
Mercer County SD 404	5	1387	463	Y	N	N	Y	N/A	N/A
Meredosia Chambersburg Dist. 11	3	267	124	Y	N	N	Y	N/A	N/A
Meridian CUSD #101	2	698	541	Y	Y	Y	Y	Y	Y

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Meridian CUSD #223	4	1991	301	Y	Y	N	Y	N/A	N/A
Milford CCSD #280	2	462	220	Y	N	N	Y	N/A	N/A
Milford THSD #233	1	198	62	Ys	N	N	Y	N/A	N/A
Millburn CC School Dist. #24	2	1649	55	Y	N	N	Y	N/A	N/A
Millstadt CCSD #160	2	873	117	Y	Y	N	Y	N/A	N/A
Minooka School Dist. #201	5	3769	594	Y	Y	Y	Y	N/A	N/A
Moline School Dist. #40	15	7001	2903	Y	Y	Y	Y	N/A	N/A
Momence CUSD #1	4	1253	723	Y	N	N	Y	N/A	N/A
Morris Community Dist. #101	1	1013	171	Y	Y	N	Y	N/A	N/A
Morris Elementary Dist. #54	2	1229	314	Y	Y	N	Y	N/A	N/A
Morrison Comm. Unit Dist. #6	4	1130	289	Y	Y	Y	Y	N/A	N/A
Morton CU Dist. #709	6	2690	252	Y	N	N	Y	N/A	N/A
Mt. Olive CUSD #5	2	577	192	Y	N	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Mt. Prospect School Dist. #57	4	2087	124	Y	Y	N	Y	N/A	N/A
Mt. Vernon City Schools #80	3	1423	1057	Y	Y	N	Y	N/A	N/A
Mt. Vernon Twsp. H.S. #201	1	1338	543	Y	Y	N	Y	N/A	N/A
Mundelein CHS Dist. #120	1	2222	537	Y	Y	N	Y	N/A	N/A
Mundelein Elementary SD #75	4	1933	362	Y	Y	Y	Y	N/A	N/A
Murphysboro CUSD #186	4	2017	1170	Y	Y	N	Y	N/A	N/A
Neponset CCSD #307	1	64	38	Y	N	N	Y	N/A	N/A
New Berlin CUSD #16	4	783	166	Y	Y	N	Y	N/A	N/A
New Holland – Middletown #88	1	93	31	Y	N	N	Y	N/A	N/A
New Lenox School Dist. #122	12	5649	511	Y	N	N	Y	N/A	N/A
New Simpson Hill Dist. #32	1	288	148	Y	N	N	Y	N/A	N/A
New Trier H S Dist. #203	2	4151	92	Y	Y	N	Y	N/A	N/A
Niles Elementary #71	1	526	154	Y	Y	Y	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Niles Township HS Dist. 219	2	4589	1027	Y	N	N	Y	N/A	N/A
Nokomis CUSD #22	3	706	263	Y	Y	N	Y	N/A	N/A
Norridge School Dist. #80	2	980	167	Y	Y	N	Y	N/A	N/A
Norris City-Omaha- Enfield CUSD #3	3	757	308	Y	Y	N	Y	N/A	N/A
North Boone CUSD #200	6	1668	267	Y	Y	Y	Y	Y* N/A	Y* N/A
North Chicago CUSD #187	10	4108	3129	Y	Y	N	Y	N/A	N/A
Northbrook Dist. #28	4	1699	17	Y	Y	N/A	Y	N/A	N/A
Northbrook School Dist. #27	4	1221	21	Y	Y	N	Y	N/A	N/A
Northbrook/ Glenview School Dist. #30	3	1109	18	Y	N	Y	Y	N/A	N/A
Northfield Twsp. H.S. Dist. #225	2	4628	426	Y	Y	N	Y	N/A	N/A
Northwestern C.U.S.D. #2	3	378	196	Y	Y	N	Y	N/A	N/A
Oak Lawn Community H.S. Dist. #229	1	1830	391	Y	Y	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Oak Lawn-Hometown SD #123	7	3037	803	Y	Y	N	Y	N/A	N/A
Oak Park and River Forest High School Dist. 200	1	3076	534	Y	Y	N	Y	N/A	N/A
Oak Park Elementary Dist. #97	10	5247	899	Y	Y	Y	Y	N/A	N/A
Odin School Dist. #122	1	213	131	Y	N	N	Y	N/A	N/A
Odin School Dist. 700	1	91	60	Y	N	N	Y	N/A	N/A
O'Fallon CCSD #90	6	3492	647	Y	N	Y	Y	N/A	N/A
O'Fallon Twsp HS Dist. #203	1	2459	342	Y	Y	N	Y	N/A	N/A
Okaw Valley CUSD #302	4	524	66	Y	Y	N	Y	N/A	N/A
Opdyke-Bell Rive CCSD #5	2	192	98	Y	Y	N	Y	N/A	N/A
Orion CUSD #223	3	1071	140	Y	N	N	Y	N/A	N/A
Orland School Dist. #135	10	5581	668	Y	Y	N	Y	Y*	N/A
Oswego CUSD 308	19	15002	1905	Y	Y	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Palatine CCSD. #15	19	12099	3298	Y	Y	N	Y	N/A	N/A
Pana CUSD #8	5	1492	700	Y	Y	N	Y	N/A	N/A
Panhandle CUSD #2	4	537	228	Y	Y	N	Y	N/A	N/A
Park Forest Dist. #163	6	1864	1391	Y	Y	N	Y	Y*	N/A
Park Ridge Niles Dist. #64	7	4293	89	Y	N	N	Y	N/A	N/A
Paxton-Buckley-Loda CUSD 10	4	1550	417	Y	Y	N	Y	N/A	N/A
Pembroke CC Sch. Dist. #259	1	313	312	Y	Y	Y	Y	N/A	N/A
Peoria SD #150	29	13825	9838	Y	Y	Y	Y	Y	Y
Plainfield CCSD #202	28	27717	3285	Y	Y	Y	Y	Y* N/A	Y* N/A
Plano CUSD #88	5	2291	827	Y	Y	Y	Y	Y	Y
Pleasant Plains Schools #8	3	1367	142	Y	Y	Y	Y	N/A	N/A
Prairie Central CUSD #8	7	2178	759	Y	Y	Y	Y	N/A	N/A
Prairie Grove Cons. Dist. #46	2	1005	96	Y	Y	N	Y	N/A	N/A
Prophetstown-Lyndon-Tampico CUSD #3	4	1001	373	Y	Y	Y	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Prospect Hts. S.D. #23	4	1441	120	Y	N	N	Y	N/A	N/A
Proviso Twsp H.S. Dist. #209	3	4871	1592	Y	Y	N	Y	Y*	N/A
Quincy School Dist. #172	10	6060	2874	Y	Y	Y	Y	N/A	N/A
Reavis H.S. Dist. #220	1	1915	311	Y	Y	N	Y	N/A	N/A
Rich Township HS Dist. #227	3	4167	2471	Y	Y	Y	Y	Y	Y
Richland School District #88A	2	950	223	Y	Y	Y	Y	N/A	N/A
River Bend CUSD #2	3	974	246	Y	Y	Y	Y	N/A	N/A
River Trails SD #26	3	1525	464	Y	Y	N	Y	N/A	N/A
Riverdale C.U.S.D. #100	3	1169	232	Y	N	N	Y	N/A	N/A
Riverdale SD #14	1	80	53	Y	Y	Y	Y	N/A	N/A
Riverside Brookfield Twsp H.S. Dist. #208	1	1475	111	Y	Y	N	Y	N/A	N/A
Riverside School Dist. #96	5	1458	130	Y	Y	Y	Y	N/A	N/A
Riverton CUSD #14	3	1535	525	Y	N	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Rochelle CCSD #231	5	1814	967	Y	Y	N	Y	N/A	N/A
Rochelle Township HS Dist. #212	1	975	205	Y	Y	N	Y	N/A	N/A
Rock Island District #41	14	6018	3783	Y	Y	Y	Y	N/A	N/A
Rockdale School Dist. #84	1	275	145	Y	Y	Y	Y	N/A	N/A
Rockford Public Schools Dist. #205	47	26990	19885	Y	Y	Y	Y	Y	Y
Roselle School Dist. #12	2	691	112	Y	Y	N	Y	N/A	N/A
Roxana CUSD #1	4	2017	971	Y	Y	N	Y	N/A	N/A
Sandoval CUSD #501	3	529	338	Y	Y	N	Y	N/A	N/A
Saratoga CCSD #60C	1	771	178	Y	Y	Y	Y	N/A	N/A
Schaumburg CCSD Dist. #54	27	14218	1835	Y	Y	Y	Y	N/A	N/A
Schiller Park Dist. #81	3	1244	733	Y	Y	Y	Y	N/A	N/A
School District #U-46	55	40449	19321	Y	Y	Y	Y	Y	Y
Shawnee Unit #84	4	487	300	Y	Y	Y	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Shelbyville CUSD #4	4	1247	689	Y	N	N	Y	N/A	N/A
Skokie School District #73 1/2	3	1043	251	Y	Y	Y	Y	N/A	N/A
Skokie/Morton Grove Dist. #69	3	1669	753	Y	Y	Y	Y	N/A	N/A
Somonauk CUSD #432	3	1031	102	Y	Y	Y	Y	N/A	N/A
South Holland S.D. #151	4	1625	1262	Y	Y	Y	Y	N/A	N/A
South Holland SD #150	3	1031	466	Y	Y	N	Y	N/A	N/A
South Wilmington SD #74	1	75	6	Y	Y	N	Y	N/A	N/A
Springfield Public Schools #186	32	14120	8879	Y	Y	Y	Y	N/A	N/A
St. Anne High School #302	1	243	171	Y	N	N	Y	Y*	N/A
St. Charles CUSD #303	17	13809	1061	Y	N	N	Y	N/A	N/A
St. Rose Dist. 14-15	1	168	10	Y	Y	N	Y	N/A	N/A
Staunton CUSD #6	4	1274	386	Y	N	N	Y	N/A	N/A
Sterling CUSD #5	6	3225	1464	Y	N	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Summit Hill School Dist. #161	7	3698	175	Y	Y	N	Y	N/A	N/A
Sycamore CUSD #427	6	3711	203	Y	Y	N	Y	N/A	N/A
Taft School District #90	1	336	97	Y	Y	N	Y	N/A	N/A
Taylorville CUSD #3	8	2957	1271	Y	Y	Y	Y	N/A	N/A
Thornton District #154	1	264	29	Y	Y	N	Y	N/A	N/A
Thornton Fractional Twsp HS Dist. 215	2	3447	1686	Y	Y	Y	Y	Y	Y
Thornton Township H.S. #205	3	6431	4031	Y	Y	Y	Y	Y*	N/A
Township H.S. Dist. #113	2	3659	271	Y	Y	N	Y	N/A	N/A
Township High School Dist. #214	6	11876	1757	Y	N	N	Y	N/A	N/A
Township HS Dist 211	5	12646	2484	Y	Y	Y	Y	N/A	N/A
Triad CUSD #2	6	3749	556	Y	Y	N	Y	Y*	N/A
Tri-Point CUSD #6J	3	555	12	Y	Y	Y	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superintendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superintendent	Local Teacher's Union
Union Ridge S.D. #86	1	589	133	Y	Y	N	Y	N/A	N/A
United CUSD #304	4	936	20	Y	N	Y	Y	Y N/A	Y N/A
United Twsp. HSD #30	1	1731	764	Y	Y	N	Y	N/A	N/A
Unity Point School Dist. #140	1	665	369	Y	Y	N	Y	N/A	N/A
Urbana School Dist. #116	8	3765	2291	Y	Y	N	Y	N/A	N/A
Valley View School Dist. 365U	19	17611	7722	Y	Y	Y	Y	N/A	N/A
Venice CUSD #3	1	67	62	Y	Y	Y	Y	N/A	N/A
Vienna High School Dist. #133	1	405	160	Y	N	N	Y	N/A	N/A
Vienna Public School Dist. #55	1	429	208	Y	N	N	Y	N/A	N/A
Virginia CUSD #64	3	397	173	Y	N	N	Y	N/A	N/A
Warren Township High School Dist. #121	1	4113	609	Y	N	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Washington Comm. H.S. Dist. 308	1	1124	128	Y	Y	N	Y	N/A	N/A
Waterloo CUSD 5	4	2791	510	Y	Y	N	Y	N/A	N/A
Wauconda CUSD #118	6	4215	850	Y	Y	N	Y	N/A	N/A
Waukegan Public School Dist. #60	21	16007	11833	Y	Y	Y	Y	N/A	N/A
Webber Twp. HS Dist. #204	1	176	28	Y	Y	N	Y	N/A	N/A
Wesclin CUSD #3	6	1409	299	Y	N	N	Y	N/A	N/A
West Carroll CUSD #314	4	1410	518	Y	Y	N	Y	N/A	N/A
West Central CUSD #235	3	971	446	Y	Y	N	Y	N/A	N/A
West Chicago Dist. 33	7	3821	2212	Y	Y	Y	Y	N/A	N/A
West Northfield SD #31	2	870	42	Y	Y	N	Y	N/A	N/A
West Prairie CUSD #103	4	677	269	Y	N	N	Y	N/A	N/A
Westchester Public Schools #92 1/2	3	1205	116	Y	N	N	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Western Springs Dist. #101	4	1573	2	Y	Y	Y	Y	N/A	N/A
Wethersfield CUSD #230	2	682	245	Y	Y	Y	Y	N/A	N/A
Wheeling School Dist. #21	12	6791	2620	Y	Y	Y	Y	N/A	N/A
Will County School Dist. #92	4	1926	169	Y	Y	Y	Y	N/A	N/A
Williamsfield CUSD #210	3	290	96	Y	Y	N	Y	N/A	N/A
Wilmington CUSD #209	4	1494	407	Y	Y	Y	Y	N/A	N/A
Winthrop Harbor School District #1	3	667	108	Y	Y	N	Y	N/A	N/A
Wood Dale Dist. #7	3	1144	337	Y	N	N	Y	N/A	N/A
Woodland School Dist. #50	4	6977	1293	Y	N	N	Y	N/A	N/A
Woodridge School Dist. #68	7	2909	839	Y	Y	N	Y	N/A	N/A
Woodstock CUSD 200	11	6457	1930	Y	Y	N	Y	N/A	N/A
Yorkville CUSD #115	8	5054	554	Y	Y	Y	Y	N/A	N/A
Zion Elementary School Dist. #6	6	2566	1920	Y	Y	Y	Y	N/A	N/A

	LEA Demographics			Signatures on MOUs			Preliminary Scope of Work		
								Exhibit II "Super LEA"[1]	
Participating LEAs	# of schools	# of students (2009)	# of low-income students	Superin-tendent	Sch. Bd. President.	Local Teachers Union	Mandatory[2]	Superin-tendent	Local Teacher's Union
Zion-Benton Twp H S D 126	2	2735	1096	Y	Y	Y	Y	Y	Y
TOTAL (366)	2483	1536806	723188	366	274	115		47	12
STATE TOTALS	3910 Schools	2070125 Students	888719 Low-Income Students	869 School Districts					

Appendix A1-4

Key Reform Legislation

A. Performance Reform Evaluation Act

B. P-20 Longitudinal Education Data System Act

AN ACT concerning education.

Be it enacted by the People of the State of Illinois, represented in the General Assembly:

Section 1. This amendatory Act may be referred to as the Performance Evaluation Reform Act of 2010.

Section 5. Findings; declarations. The General Assembly finds and declares all of the following:

(1) Effective teachers and school leaders are a critical factor contributing to student achievement.

(2) Many existing district performance evaluation systems fail to adequately distinguish between effective and ineffective teachers and principals. A recent study of evaluation systems in 3 of the largest Illinois districts found that out of 41,174 teacher evaluations performed over a 5-year period, 92.6% of teachers were rated "superior" or "excellent", 7% were rated "satisfactory", and only 0.4% were rated "unsatisfactory".

(3) Performance evaluation systems must assess professional competencies as well as student growth.

(4) School districts and the State must ensure that performance evaluation systems are valid and reliable and contribute to the development of staff and improved student achievement outcomes.

Public Act 096-0861
SB0315 Enrolled LRB096 06030 NHT 16112 b

Section 10. The School Code is amended by changing Sections 2-3.25g, 24A-3, 24A-4, 24A-5, 24A-7, 24A-8, 24A-15, 34-8, and 34-85c and by adding Sections 24A-2.5, 24A-7.1, and 24A-20 as follows:

(105 ILCS 5/2-3.25g) (from Ch. 122, par. 2-3.25g)

Sec. 2-3.25g. Waiver or modification of mandates within the School Code and administrative rules and regulations.

(a) In this Section:

"Board" means a school board or the governing board or administrative district, as the case may be, for a joint agreement.

"Eligible applicant" means a school district, joint agreement made up of school districts, or regional superintendent of schools on behalf of schools and programs operated by the regional office of education.

"Implementation date" has the meaning set forth in Section 24A-2.5 of this Code.

"State Board" means the State Board of Education.

(b) Notwithstanding any other provisions of this School Code or any other law of this State to the contrary, eligible applicants may petition the State Board of Education for the waiver or modification of the mandates of this School Code or of the administrative rules and regulations promulgated by the State Board of Education. Waivers or modifications of

administrative rules and regulations and modifications of mandates of this School Code may be requested when an eligible applicant demonstrates that it can address the intent of the rule or mandate in a more effective, efficient, or economical manner or when necessary to stimulate innovation or improve student performance. Waivers of mandates of the School Code may be requested when the waivers are necessary to stimulate innovation or improve student performance. Waivers may not be requested from laws, rules, and regulations pertaining to special education, teacher certification, teacher tenure and seniority, or Section 5-2.1 of this Code or from compliance with the No Child Left Behind Act of 2001 (Public Law 107-110). On and after the applicable implementation date, eligible applicants may not seek a waiver or seek a modification of a mandate regarding the requirements for (i) student performance data to be a significant factor in teacher or principal evaluations or (ii) for teachers and principals to be rated using the 4 categories of "excellent", "proficient", "needs improvement", or "unsatisfactory". On the applicable implementation date, any previously authorized waiver or modification from such requirements shall terminate.

(c) Eligible applicants, as a matter of inherent managerial policy, and any Independent Authority established under Section 2-3.25f may submit an application for a waiver or modification authorized under this Section. Each application must include a written request by the eligible applicant or

Independent Authority and must demonstrate that the intent of the mandate can be addressed in a more effective, efficient, or economical manner or be based upon a specific plan for improved student performance and school improvement. Any eligible applicant requesting a waiver or modification for the reason that intent of the mandate can be addressed in a more economical manner shall include in the application a fiscal analysis showing current expenditures on the mandate and projected savings resulting from the waiver or modification. Applications and plans developed by eligible applicants must be approved by the board or regional superintendent of schools applying on behalf of schools or programs operated by the regional office of education following a public hearing on the application and plan and the opportunity for the board or regional superintendent to hear testimony from staff directly involved in its implementation, parents, and students. The time period for such testimony shall be separate from the time period established by the eligible applicant for public comment on other matters. If the applicant is a school district or joint agreement requesting a waiver or modification of Section 27-6 of this Code, the public hearing shall be held on a day other than the day on which a regular meeting of the board is held. If the applicant is a school district, the public hearing must be preceded by at least one published notice occurring at least 7 days prior to the hearing in a newspaper of general circulation within the school district that sets forth the

time, date, place, and general subject matter of the hearing. If the applicant is a joint agreement or regional superintendent, the public hearing must be preceded by at least one published notice (setting forth the time, date, place, and general subject matter of the hearing) occurring at least 7 days prior to the hearing in a newspaper of general circulation in each school district that is a member of the joint agreement or that is served by the educational service region, provided that a notice appearing in a newspaper generally circulated in more than one school district shall be deemed to fulfill this requirement with respect to all of the affected districts. The eligible applicant must notify in writing the affected exclusive collective bargaining agent and those State legislators representing the eligible applicant's territory of its intent to seek approval of a waiver or modification and of the hearing to be held to take testimony from staff. The affected exclusive collective bargaining agents shall be notified of such public hearing at least 7 days prior to the date of the hearing and shall be allowed to attend such public hearing. The eligible applicant shall attest to compliance with all of the notification and procedural requirements set forth in this Section.

(d) A request for a waiver or modification of administrative rules and regulations or for a modification of mandates contained in this School Code shall be submitted to the State Board of Education within 15 days after approval by

Public Act 096-0861

SB0315 Enrolled LRB096 06030 NHT 16112 b

the board or regional superintendent of schools. The application as submitted to the State Board of Education shall include a description of the public hearing. Following receipt of the request, the State Board shall have 45 days to review the application and request. If the State Board fails to disapprove the application within that 45 day period, the waiver or modification shall be deemed granted. The State Board may disapprove any request if it is not based upon sound educational practices, endangers the health or safety of students or staff, compromises equal opportunities for learning, or fails to demonstrate that the intent of the rule or mandate can be addressed in a more effective, efficient, or economical manner or have improved student performance as a primary goal. Any request disapproved by the State Board may be appealed to the General Assembly by the eligible applicant as outlined in this Section.

A request for a waiver from mandates contained in this School Code shall be submitted to the State Board within 15 days after approval by the board or regional superintendent of schools. The application as submitted to the State Board of Education shall include a description of the public hearing. The description shall include, but need not be limited to, the means of notice, the number of people in attendance, the number of people who spoke as proponents or opponents of the waiver, a brief description of their comments, and whether there were any written statements submitted. The State Board shall review the

applications and requests for completeness and shall compile the requests in reports to be filed with the General Assembly. The State Board shall file reports outlining the waivers requested by eligible applicants and appeals by eligible applicants of requests disapproved by the State Board with the Senate and the House of Representatives before each March 1 and October 1. The General Assembly may disapprove the report of the State Board in whole or in part within 60 calendar days after each house of the General Assembly next convenes after the report is filed by adoption of a resolution by a record vote of the majority of members elected in each house. If the General Assembly fails to disapprove any waiver request or appealed request within such 60 day period, the waiver or modification shall be deemed granted. Any resolution adopted by the General Assembly disapproving a report of the State Board in whole or in part shall be binding on the State Board.

(e) An approved waiver or modification (except a waiver from or modification to a physical education mandate) may remain in effect for a period not to exceed 5 school years and may be renewed upon application by the eligible applicant. However, such waiver or modification may be changed within that 5-year period by a board or regional superintendent of schools applying on behalf of schools or programs operated by the regional office of education following the procedure as set forth in this Section for the initial waiver or modification request. If neither the State Board of Education nor the

General Assembly disapproves, the change is deemed granted.

An approved waiver from or modification to a physical education mandate may remain in effect for a period not to exceed 2 school years and may be renewed no more than 2 times upon application by the eligible applicant. An approved waiver from or modification to a physical education mandate may be changed within the 2-year period by the board or regional superintendent of schools, whichever is applicable, following the procedure set forth in this Section for the initial waiver or modification request. If neither the State Board of Education nor the General Assembly disapproves, the change is deemed granted.

(f) On or before February 1, 1998, and each year thereafter, the State Board of Education shall submit a cumulative report summarizing all types of waivers of mandates and modifications of mandates granted by the State Board or the General Assembly. The report shall identify the topic of the waiver along with the number and percentage of eligible applicants for which the waiver has been granted. The report shall also include any recommendations from the State Board regarding the repeal or modification of waived mandates.
(Source: P.A. 94-198, eff. 1-1-06; 94-432, eff. 8-2-05; 94-875, eff. 7-1-06; 95-223, eff. 1-1-08.)

(105 ILCS 5/24A-2.5 new)

Sec. 24A-2.5. Definitions. In this Article:

"Evaluator" means:

(1) an administrator qualified under Section 24A-3; or

(2) other individuals qualified under Section 24A-3, provided that, if such other individuals are in the bargaining unit of a district's teachers, the district and the exclusive bargaining representative of that unit must agree to those individuals evaluating other bargaining unit members.

Notwithstanding anything to the contrary in item (2) of this definition, a school district operating under Article 34 of this Code may require department chairs qualified under Section 24A-3 to evaluate teachers in their department or departments, provided that the school district shall bargain with the bargaining representative of its teachers over the impact and effects on department chairs of such a requirement.

"Implementation date" means, unless otherwise specified and provided that the requirements set forth in subsection (d) of Section 24A-20 have been met:

(1) For school districts having 500,000 or more inhabitants, in at least 300 schools by September 1, 2012 and in the remaining schools by September 1, 2013.

(2) For school districts having less than 500,000 inhabitants and receiving a Race to the Top Grant or School Improvement Grant after the effective date of this amendatory Act of the 96th General Assembly, the date specified in those grants for implementing an evaluation system for teachers and principals incorporating student growth as a significant factor.

(3) For the lowest performing 20% percent of remaining school districts having less than 500,000 inhabitants (with the measure of and school year or years used for school district performance to be determined by the State Superintendent of Education at a time determined by the State Superintendent), September 1, 2015.

(4) For all other school districts having less than 500,000 inhabitants, September 1, 2016.

"Race to the Top Grant" means a grant made by the Secretary of the U.S. Department of Education pursuant to paragraph (2) of Section 14006(a) of the American Recovery and Reinvestment Act of 2009.

"School Improvement Grant" means a grant made by the Secretary of the U.S. Department of Education pursuant to Section 1003(g) of the Elementary and Secondary Education Act.

(105 ILCS 5/24A-3) (from Ch. 122, par. 24A-3)

Sec. 24A-3. Evaluation training and pre-qualification.

(a) School ~~Beginning January 1, 1986, school~~ boards shall require evaluators ~~those administrators, or - in school districts having a population exceeding 500,000 - assistant principals, who evaluate other certified personnel~~ to participate ~~at least once every 2 years~~ in an inservice training ~~workshop~~ on ~~either school improvement or~~ the

Public Act 096-0861
SB0315 Enrolled LRB096 06030 NHT 16112 b

evaluation of certified personnel provided or approved by the State Board of Education prior to undertaking any evaluation and at least once during each certificate renewal cycle. Training provided or approved by the State Board of Education shall include the evaluator training program developed pursuant to Section 24A-20 of this Code.

(b) Any evaluator undertaking an evaluation after September 1, 2012 must first successfully complete a pre-qualification program provided or approved by the State Board of Education. The program must involve rigorous training and an independent observer's determination that the evaluator's ratings properly align to the requirements established by the State Board pursuant to this Article.

(Source: P.A. 86-1477; 87-1076.)

(105 ILCS 5/24A-4) (from Ch. 122, par. 24A-4)

Sec. 24A-4. Development ~~and submission~~ of evaluation plan.

(a) As used in this and the succeeding Sections, "teacher" means any and all school district employees regularly required to be certified under laws relating to the certification of teachers. Each school district shall develop, in cooperation with its teachers or, where applicable, the exclusive bargaining representatives of its teachers, an evaluation plan for all teachers.

(b) By no later than the applicable implementation date, each school district shall, in good faith cooperation with its

Public Act 096-0861

SB0315 Enrolled LRB096 06030 NHT 16112 b

teachers or, where applicable, the exclusive bargaining representatives of its teachers, incorporate the use of data and indicators on student growth as a significant factor in rating teaching performance, into its evaluation plan for all teachers, both those teachers in contractual continued service and those teachers not in contractual continued service. The plan shall at least meet the standards and requirements for student growth and teacher evaluation established under Section 24A-7, and specifically describe how student growth data and indicators will be used as part of the evaluation process, how this information will relate to evaluation standards, the assessments or other indicators of student performance that will be used in measuring student growth and the weight that each will have, the methodology that will be used to measure student growth, and the criteria other than student growth that will be used in evaluating the teacher and the weight that each will have.

To incorporate the use of data and indicators of student growth as a significant factor in rating teacher performance into the evaluation plan, the district shall use a joint committee composed of equal representation selected by the district and its teachers or, where applicable, the exclusive bargaining representative of its teachers. If, within 180 calendar days of the committee's first meeting, the committee does not reach agreement on the plan, then the district shall implement the model evaluation plan established under Section

24A-7 with respect to the use of data and indicators on student growth as a significant factor in rating teacher performance.

Nothing in this subsection (a) shall make decisions on the use of data and indicators on student growth as a significant factor in rating teaching performance mandatory subjects of bargaining under the Illinois Educational Labor Relations Act that are not currently mandatory subjects of bargaining under the Act.

(c) Notwithstanding anything to the contrary in subsection (b) of this Section, if the joint committee referred to in that subsection does not reach agreement on the plan within 90 calendar days after the committee's first meeting, a school district having 500,000 or more inhabitants shall not be required to implement any aspect of the model evaluation plan and may implement its last best proposal. ~~In contractual continued service. The district shall, no later than October 1, 1985, submit a copy of its evaluation plan to the State Board of Education, which shall review the plan and make public its comments thereon, and the district shall at the same time provide a copy to the exclusive bargaining representatives. Whenever any substantive change is made in a district's evaluation plan, the new plan shall be submitted to the State Board of Education for review and comment, and the district shall at the same time provide a copy of any such new plan to the exclusive bargaining representatives. The board of a school district operating under Article 34 of this Code and the exclusive representative of the district's teachers shall submit a certified copy of an agreement entered into under Section 34-85c of this Code to the State Board of Education, and that agreement shall constitute the teacher evaluation plan for teachers assigned to schools identified in that agreement. Whenever any substantive change is made in an agreement entered into under Section 34-85c of this Code by the board of a school district operating under Article 34 of this Code and the exclusive representative of the district's teachers, the new agreement shall be submitted to the State Board of Education.~~

(Source: P.A. 95-510, eff. 8-28-07.)

(105 ILCS 5/24A-5) (from Ch. 122, par. 24A-5)

Sec. 24A-5. Content of evaluation plans. This Section does not apply to teachers assigned to schools identified in an agreement entered into between the board of a school district operating under Article 34 of this Code and the exclusive representative of the district's teachers in accordance with Section 34-85c of this Code.

Each school district to which this Article applies shall establish a teacher evaluation plan which ensures that each teacher in contractual continued service is evaluated at least once in the course of every 2 school years~~, beginning with the 1986-87 school year~~.

By no later than September 1, 2012, each school district shall establish a teacher evaluation plan that ensures that:

(1) each teacher not in contractual continued service is evaluated at least once every school year; and

(2) each teacher in contractual continued service is evaluated at least once in the course of every 2 school years. However, any teacher in contractual continued service whose performance is rated as either "needs improvement" or "unsatisfactory" must be evaluated at least once in the school year following the receipt of such rating.

Notwithstanding anything to the contrary in this Section or any other Section of the School Code, a principal shall not be prohibited from evaluating any teachers within a school during his or her first year as principal of such school.

The evaluation plan shall comply with the requirements of this Section and of any rules adopted by the State Board of Education pursuant to this Section.

The plan shall include a description of each teacher's duties and responsibilities and of the standards to which that teacher is expected to conform. ~~The plan may provide for evaluation of personnel whose positions require administrative certification by independent evaluators not employed by or affiliated with the school district. The results of the school district administrators' evaluations shall be reported to the employing school board, together with such recommendations for remediation as the evaluator or evaluators may deem appropriate. Evaluation of teachers whose positions do not require administrative certification shall be conducted by an administrator qualified under Section 24A-3, or -- in school districts having a population exceeding 500,000 -- by either an administrator qualified under Section 24A-3 or an assistant principal under the supervision of an administrator qualified under Section 24A-3~~, and shall include at least the following components:

(a) personal observation of the teacher in the classroom by the evaluator ~~on at least 2 different school days in school districts having a population exceeding 500,000 by a district administrator qualified under Section 24A-3, or -- in school districts having a population exceeding 500,000 -- by either an administrator qualified under Section 24A-3 or an assistant principal under the supervision of an administrator qualified under Section 24A-3~~, unless the teacher has no classroom duties.

(b) consideration of the teacher's attendance, planning, ~~and~~ instructional methods, classroom management, where relevant, and competency in the subject matter taught~~, where relevant~~.

(c) by no later than the applicable implementation date, consideration of student growth as a significant factor in the rating of the teacher's performance.

(d) prior to September 1, 2012, ~~(c)~~ rating of the ~~teacher's~~ performance of teachers in contractual continued service as either:

(ii) "excellent", "satisfactory" or "unsatisfactory"; or

(iii) "excellent", "proficient", "needs improvement" or "unsatisfactory".

(e) on and after September 1, 2012, rating of the performance of teachers in contractual continued service as "excellent", "proficient", "needs improvement" or "unsatisfactory".

(f) ~~(d)~~ specification as to the teacher's strengths and weaknesses, with supporting reasons for the comments made.

(g) ~~(e)~~ inclusion of a copy of the evaluation in the teacher's personnel file and provision of a copy to the teacher.

(h) within 30 school days after the completion of an evaluation rating a teacher in contractual continued service as "needs improvement", development by the evaluator, in consultation with the teacher, and taking into account the teacher's on-going professional responsibilities including his or her regular teaching assignments, of a professional development plan directed to the areas that need improvement and any supports that the district will provide to address the areas identified as needing improvement.

(i) ~~(f)~~ within 30 days after completion of an evaluation rating a teacher in contractual continued service as "unsatisfactory", development and commencement

by the district~~, or by an administrator qualified under Section 24A-3 or an assistant principal under the supervision of an administrator qualified under Section 24A-3 in school districts having a population exceeding 500,000,~~ of a remediation plan designed to correct deficiencies cited, provided the deficiencies are deemed remediable. In all school districts the remediation plan for unsatisfactory, tenured teachers shall provide for 90 school days of remediation within the classroom, unless an applicable collective bargaining agreement provides for a shorter duration. In all school districts evaluations issued pursuant to this Section shall be issued within 10 days after the conclusion of the respective remediation plan. However, the school board or other governing authority of the district shall not lose jurisdiction to discharge a teacher in the event the evaluation is not issued within 10 days after the conclusion of the respective remediation plan.

(j) ~~(g)~~ participation in the remediation plan by the teacher in contractual continued service rated "unsatisfactory", an evaluator and ~~a district administrator qualified under Section 24A-3 (or -- in a school district having a population exceeding 500,000 -- an administrator qualified under Section 24A-3 or an assistant principal under the supervision of an administrator qualified under Section 24A-3), and~~ a

consulting teacher~~,~~ selected by the evaluator ~~by the participating administrator or by the principal, or in school districts having a population exceeding 500,000 by an administrator qualified under Section 24A-3 or by an assistant principal under the supervision of an administrator qualified under Section 24A-3,~~ of the teacher who was rated "unsatisfactory", which consulting teacher is an educational employee as defined in the Educational Labor Relations Act, has at least 5 years' teaching experience, and a reasonable familiarity with the assignment of the teacher being evaluated, and who received an "excellent" rating on his or her most recent evaluation. Where no teachers who meet these criteria are available within the district, the district shall request and the State Board of Education shall supply, to participate in the remediation process, an individual who meets these criteria.

In a district having a population of less than 500,000 with an exclusive bargaining agent, the bargaining agent may, if it so chooses, supply a roster of qualified teachers from whom the consulting teacher is to be selected. That roster shall, however, contain the names of at least 5 teachers, each of whom meets the criteria for consulting teacher with regard to the teacher being evaluated, or the names of all teachers so qualified if that number is less than 5. In the event of a dispute as to qualification, the State Board shall determine qualification.

(k) a mid-point and final evaluation by an evaluator during and at the end of the remediation period, immediately following receipt of a remediation plan provided for under subsections (i) and (j) of this Section. Each evaluation shall assess the teacher's performance during the time period since the prior evaluation; provided that the last evaluation shall also include an overall evaluation of the teacher's performance during the remediation period. A written copy of the evaluations and ratings, in which any deficiencies in performance and recommendations for correction are identified, shall be provided to and discussed with the teacher within 10 school days after the date of the evaluation, unless an applicable collective bargaining agreement provides to the contrary. ~~(k) evaluations and ratings once every 20 school days for the 90 school day remediation period immediately following receipt of a remediation plan provided for under subsections (i) and (j) of this Section; provided that in school districts having a population exceeding 500,000 there shall be monthly evaluations and ratings for the first 6 months and quarterly evaluations and ratings for the next 6 months immediately following completion of the remediation program of a teacher for whom a remediation plan has been developed.~~ These subsequent evaluations

Public Act 096-0861
SB0315 Enrolled LRB096 06030 NHT 16112 b

shall be conducted by an evaluator ~~the participating administrator, or ... in school districts having a population exceeding 500,000 ... by either the principal or by an assistant principal under the supervision of an administrator qualified under Section 24A-3~~. The consulting teacher shall provide advice to the teacher rated "unsatisfactory" on how to improve teaching skills and to successfully complete the remediation plan. The consulting teacher shall participate in developing the remediation plan, but the final decision as to the evaluation shall be done solely by the evaluator ~~administrator, or ... in school districts having a population exceeding 500,000 ... by either the principal or by an assistant principal under the supervision of an administrator qualified under Section 24A-3~~, unless an applicable collective bargaining agreement provides to the contrary. ~~Teachers in the remediation process in a school district having a population exceeding 500,000 are not subject to the annual evaluations described in paragraphs (a) through (c) of this Section.~~ Evaluations at the conclusion of the remediation process shall be separate and distinct from the required annual evaluations of teachers and shall not be subject to the guidelines and procedures relating to those annual evaluations. The evaluator may but is not required to use the forms provided for the annual evaluation of teachers in the district's evaluation plan.

Public Act 096-0861

SB0315 Enrolled LRB096 06030 NHT 16112 b

(i) ~~(1) in school districts having a population of less than 500,000,~~ reinstatement to the evaluation schedule set forth in the district's evaluation plan ~~a schedule of biennial evaluation~~ for any teacher in contractual continued service who achieves a rating equal to or better than "Satisfactory" or "Proficient" in the school year following a rating of "needs improvement" or "unsatisfactory". ~~completes the 90 school day remediation plan with a "satisfactory" or better rating, unless the district's plan regularly requires more frequent evaluations; and in school districts having a population exceeding 500,000, reinstatement to a schedule of biennial evaluation for any teacher who completes the 90 school day remediation plan with a "satisfactory" or better rating and the one year intensive review schedule as provided in paragraph (h) of this Section with a "satisfactory" or better rating, unless such district's plan regularly requires more frequent evaluations.~~

(m) ~~(i)~~ dismissal in accordance with Section 24-12 or 34-85 of the School Code of any teacher who fails to complete any applicable remediation plan with a rating equal to or better than a "Satisfactory" or "Proficient" ~~better~~ rating. Districts and teachers subject to dismissal hearings are precluded from compelling the testimony of consulting teachers at such hearings under Section 24-12 or 34-85, either as to the rating process or for opinions of

performances by teachers under remediation.

~~In a district subject to a collective bargaining agreement as of the effective date of this amendatory Act of 1997, any changes made by this amendatory Act to the provisions of this Section that are contrary to the express terms and provisions of that agreement shall go into effect in that district only upon expiration of that agreement. Thereafter, collectively bargained evaluation plans shall at a minimum meet the standards of this Article. If such a district has an evaluation plan, however, whether pursuant to the collective bargaining agreement or otherwise, a copy of that plan shall be submitted to the State Board of Education for review and comment, in accordance with Section 24A-4.~~

Nothing in this Section or Section 24A-4 shall be construed as preventing immediate dismissal of a teacher for deficiencies which are deemed irremediable or for actions which are injurious to or endanger the health or person of students in the classroom or school, or preventing the dismissal or non-renewal of teachers not in contractual continued service for any reason not prohibited by applicable employment, labor, and civil rights laws. Failure to strictly comply with the time requirements contained in Section 24A-5 shall not invalidate the results of the remediation plan.

(Source: P.A. 95-510, eff. 8-28-07.)

(105 ILCS 5/24A-7) (from Ch. 122, par. 24A-7)

Sec. 24A-7. Rules. The State Board of Education is authorized to adopt such rules as are deemed necessary to implement and accomplish the purposes and provisions of this Article, including, but not limited to, rules (i) relating to the methods for measuring student growth (including, but not limited to, limitations on the age of useable data; the amount of data needed to reliably and validly measure growth for the purpose of teacher and principal evaluations; and whether and at what time annual State assessments may be used as one of multiple measures of student growth), (ii) defining the term "significant factor" for purposes of including consideration of student growth in performance ratings, (iii) controlling for such factors as student characteristics (including, but not limited to, students receiving special education and English language learner services), student attendance, and student mobility so as to best measure the impact that a teacher, principal, school and school district has on students' academic achievement, (iv) establishing minimum requirements for district teacher and principal evaluation instruments and procedures, and (v) establishing a model evaluation plan for use by school districts in which student growth shall comprise 50% of the performance rating. Notwithstanding any provision in this Section, rules shall not preclude a school district having 500,000 or more inhabitants from using an annual State assessment as the sole measure of student growth for purposes of teacher or principal evaluations.

The rules shall be developed through a process involving collaboration with a Performance Evaluation Advisory Council, which shall be convened and staffed by the State Board of Education. Members of the Council shall be selected by the State Superintendent and include, without limitation, representatives of teacher unions and school district management, persons with expertise in performance evaluation processes and systems, as well as other stakeholders. The Performance Evaluation Advisory Council shall meet at least quarterly following the effective date of this amendatory Act of the 96th General Assembly until June 30, 2017.

Prior to the applicable implementation date, ~~except that~~ these rules shall not apply to teachers assigned to schools identified in an agreement entered into between the board of a school district operating under Article 34 of this Code and the exclusive representative of the district's teachers in accordance with Section 34-85c of this Code.

(Source: P.A. 95-510, eff. 8-28-07.)

(105 ILCS 5/24A-7.1 new)

Sec. 24A-7.1. Teacher, principal, and superintendent performance evaluations. Except as otherwise provided under this Act, disclosure of public school teacher, principal, and superintendent performance evaluations is prohibited.

(105 ILCS 5/24A-8) (from Ch. 122, par. 24A-8)

Sec. 24A-8. Evaluation of teachers not in contractual continued service. Each ~~Beginning with the 1987-88 school year each~~ teacher not in contractual continued service shall be evaluated at least once each school year.

(Source: P.A. 84-1419.)

(105 ILCS 5/24A-15)

Sec. 24A-15. Development ~~and submission~~ of evaluation plan for principals.

(a) Each ~~Beginning with the 2006-2007 school year and each school year thereafter, each~~ school district, except for a school district organized under Article 34 of this Code, shall establish a principal evaluation plan in accordance with this Section. The plan must ensure that each principal is evaluated as follows:

(1) For a principal on a single-year contract, the evaluation must take place by March ~~February~~ 1 of each year.

(2) For a principal on a multi-year contract under Section 10-23.8a of this Code, the evaluation must take place by March 1 ~~February 1~~ of the final year of the contract.

On and after September 1, 2012, the plan must:

(i) rate the principal's performance as "excellent", "proficient", "needs improvement" or "unsatisfactory"; and

(ii) ensure that each principal is evaluated at least

once every school year.

Nothing in this Section prohibits a school district from conducting additional evaluations of principals.

(b) The evaluation shall include a description of the principal's duties and responsibilities and the standards to which the principal is expected to conform.

(c) The evaluation must be performed by the district superintendent, the superintendent's designee, or, in the absence of the superintendent or his or her designee, an individual appointed by the school board who holds a registered Type 75 State administrative certificate.

Prior to September 1, 2012, the ~~The~~ evaluation must be in writing and must at least do all of the following:

(1) Consider the principal's specific duties, responsibilities, management, and competence as a principal.

(2) Specify the principal's strengths and weaknesses, with supporting reasons.

(3) Align with ~~the Illinois Professional Standards for School Leaders or~~ research-based standards established by administrative rule ~~district standards~~.

On and after September 1, 2012, the evaluation must, in addition to the requirements in items (1), (2), and (3) of this subsection (c), provide for the use of data and indicators on student growth as a significant factor in rating performance.

(d) One copy of the evaluation must be included in the

principal's personnel file and one copy of the evaluation must be provided to the principal.

(e) Failure by a district to evaluate a principal and to provide the principal with a copy of the evaluation at least once during the term of the principal's contract, in accordance with this Section, is evidence that the principal is performing duties and responsibilities in at least a satisfactory manner and shall serve to automatically extend the principal's contract for a period of one year after the contract would otherwise expire, under the same terms and conditions as the prior year's contract. The requirements in this Section are in addition to the right of a school board to reclassify a principal pursuant to Section 10-23.8b of this Code.

(f) Nothing in this Section prohibits a school board from ordering lateral transfers of principals to positions of similar rank and salary.

(Source: P.A. 94-1039, eff. 7-20-06.)

(105 ILCS 5/24A-20 new)

Sec. 24A-20. State Board of Education data collection and evaluation assessment and support systems.

(a) On or before the date established in subsection (b) of this Section, the State Board of Education shall, through a process involving collaboration with the Performance Evaluation Advisory Council, develop or contract for the development of and implement all of the following data

collection and evaluation assessment and support systems:

(1) A system to annually collect and publish data by district and school on teacher and administrator performance evaluation outcomes. The system must ensure that no teacher or administrator can be personally identified by publicly reported data.

(2) Both a teacher and principal model evaluation template. The model templates must incorporate the requirements of this Article and any other requirements established by the State Board by administrative rule, but allow customization by districts in a manner that does not conflict with such requirements.

(3) An evaluator pre-qualification program based on the model teacher evaluation template.

(4) An evaluator training program based on the model teacher evaluation template. The training program shall provide multiple training options that account for the prior training and experience of the evaluator.

(5) A superintendent training program based on the model principal evaluation template.

(6) One or more instruments to provide feedback to principals on the instructional environment within a school.

(7) A State Board-provided or approved technical assistance system that supports districts with the development and implementation of teacher and principal evaluation systems.

(8) Web-based systems and tools supporting implementation of the model templates and the evaluator pre-qualification and training programs.

(9) A process for measuring and reporting correlations between local principal and teacher evaluations and (A) student growth in tested grades and subjects and (B) retention rates of teachers.

(10) A process for assessing whether school district evaluation systems developed pursuant to this Act and that consider student growth as a significant factor in the rating of a teacher's and principal's performance are valid and reliable, contribute to the development of staff, and improve student achievement outcomes. By no later than September 1, 2014, a research-based study shall be issued assessing such systems for validity and reliability, contribution to the development of staff, and improvement of student performance and recommending, based on the results of this study, changes, if any, that need to be incorporated into teacher and principal evaluation systems that consider student growth as a significant factor in the rating performance for remaining school districts to be required to implement such systems.

(b) If the State of Illinois receives a Race to the Top Grant, the data collection and support systems described in subsection (a) must be developed on or before September 30,

Public Act 096-0861

SB0315 Enrolled LRB096 06030 NHT 16112 b

2011. If the State of Illinois does not receive a Race to the Top Grant, the data collection and support systems described in subsection (a) must be developed on or before September 30, 2012; provided, however, that the data collection and support systems set forth in items (3) and (4) of subsection (a) of this Section must be developed by September 30, 2011 regardless of whether the State of Illinois receives a Race to the Top Grant. By no later than September 1, 2011, if the State of Illinois receives a Race to the Top Grant, or September 1, 2012, if the State of Illinois does not receive a Race to the Top Grant, the State Board of Education must execute or contract for the execution of the assessment referenced in item (10) of subsection (a) of this Section to determine whether the school district evaluation systems developed pursuant to this Act have been valid and reliable, contributed to the development of staff, and improved student performance.

(c) Districts shall submit data and information to the State Board on teacher and principal performance evaluations and evaluation plans in accordance with procedures and requirements for submissions established by the State Board. Such data shall include, without limitation, (i) data on the performance rating given to all teachers in contractual continued service, (ii) data on district recommendations to renew or not renew teachers not in contractual continued service, and (iii) data on the performance rating given to all principals.

Public Act 096-0861

SB0315 Enrolled LRB096 06030 NHT 16112 b

(d) If the State Board of Education does not timely fulfill any of the requirements set forth in Sections 24A-7 and 24A-20, and adequate and sustainable federal, State, or other funds are not provided to the State Board of Education and school districts to meet their responsibilities under this Article, the applicable implementation date shall be postponed by the number of calendar days equal to those needed by the State Board of Education to fulfill such requirements and for the adequate and sustainable funds to be provided to the State Board of Education and school districts. The determination as to whether the State Board of Education has fulfilled any or all requirements set forth in Sections 24A-7 and 24A-20 and whether adequate and sustainable funds have been provided to the State Board of Education and school districts shall be made by the State Board of Education in consultation with the P-20 Council.

(105 ILCS 5/34-8) (from Ch. 122, par. 34-8)

Sec. 34-8. Powers and duties of general superintendent. The general superintendent of schools shall prescribe and control, subject to the approval of the board and to other provisions of this Article, the courses of study mandated by State law, textbooks, educational apparatus and equipment, discipline in and conduct of the schools, and shall perform such other duties as the board may by rule prescribe. The superintendent shall also notify the State Board of Education, the board and the

chief administrative official, other than the alleged perpetrator himself, in the school where the alleged perpetrator serves, that any person who is employed in a school or otherwise comes into frequent contact with children in the school has been named as a perpetrator in an indicated report filed pursuant to the Abused and Neglected Child Reporting Act, approved June 26, 1975, as amended.

The general superintendent may be granted the authority by the board to hire a specific number of employees to assist in meeting immediate responsibilities. Conditions of employment for such personnel shall not be subject to the provisions of Section 34-85.

The general superintendent may, pursuant to a delegation of authority by the board and Section 34-18, approve contracts and expenditures.

Pursuant to other provisions of this Article, sites shall be selected, schoolhouses located thereon and plans therefor approved, and textbooks and educational apparatus and equipment shall be adopted and purchased by the board only upon the recommendation of the general superintendent of schools or by a majority vote of the full membership of the board and, in the case of textbooks, subject to Article 28 of this Act. The board may furnish free textbooks to pupils and may publish its own textbooks and manufacture its own apparatus, equipment and supplies.

In addition, in January of each year, the general

Public Act 096-0861

SB0315 Enrolled LRB096 08030 NHT 16112 b

superintendent of schools shall report to the State Board of Education the number of high school students in the district who are enrolled in accredited courses (for which high school credit will be awarded upon successful completion of the courses) at any community college, together with the name and number of the course or courses which each such student is taking.

The general superintendent shall also have the authority to monitor the performance of attendance centers, to identify and place an attendance center on remediation and probation, and to recommend to the board that the attendance center be placed on intervention and be reconstituted, subject to the provisions of Sections 34-8.3 and 8.4.

The general superintendent, or his or her designee, shall conduct an annual evaluation of each principal in the district pursuant to guidelines promulgated by the Board and the Board approved principal evaluation form. The evaluation shall be based on factors, including the following: (i) student academic improvement, as defined by the school improvement plan; (ii) student absenteeism rates at the school; (iii) instructional leadership; (iv) effective implementation of programs, policies, or strategies to improve student academic achievement; (v) school management; and (vi) other factors, including, without limitation, the principal's communication skills and ability to create and maintain a student-centered learning environment, to develop opportunities for

professional development, and to encourage parental involvement and community partnerships to achieve school improvement.

Effective no later than September 1, 2012, the general superintendent or his or her designee shall develop a written principal evaluation plan. The evaluation plan must be in writing and shall supersede the evaluation requirements set forth in this Section. The evaluation plan must do at least all of the following:

(1) Provide for annual evaluation of all principals employed under a performance contract by the general superintendent or his or her designee, no later than July 1st of each year.

(2) Consider the principal's specific duties, responsibilities, management, and competence as a principal.

(3) Specify the principal's strengths and weaknesses, with supporting reasons.

(4) Align with research-based standards.

(5) Use data and indicators on student growth as a significant factor in rating principal performance.

(Source: P.A. 95-496, eff. 8-28-07.)

(105 ILCS 5/34-85c)

Sec. 34-85c. Alternative procedures for teacher evaluation, remediation, and removal for cause after remediation.

(a) Notwithstanding any law to the contrary, the board and the exclusive representative of the district's teachers are hereby authorized to enter into an agreement to establish alternative procedures for teacher evaluation, remediation, and removal for cause after remediation, including an alternative system for peer evaluation and recommendations; provided, however, that no later than September 1, 2012: (i) any alternative procedures must include provisions whereby student performance data is a significant factor in teacher evaluation and (ii) teachers are rated as "excellent", "proficient", "needs improvement" or "unsatisfactory". Pursuant exclusively to that agreement, teachers assigned to schools identified in that agreement shall be subject to an alternative performance evaluation plan and remediation procedures in lieu of the plan and procedures set forth in Article 24A of this Code and alternative removal for cause standards and procedures in lieu of the removal standards and procedures set forth in Sections 34-85 and 34-85b of this Code. To the extent that the agreement provides a teacher with an opportunity for a hearing on removal for cause before an independent hearing officer in accordance with Sections 34-85 and 34-85b or otherwise, the hearing officer shall be governed by the alternative performance evaluation plan, remediation procedures, and removal standards and procedures set forth in the agreement in making findings of fact and a recommendation.

Public Act 096-0861

SB0315 Enrolled LRB096 06030 NHT 16112 b

(b) The board and the exclusive representative of the district's teachers shall submit a certified copy of an agreement as provided under subsection (a) of this Section to the State Board of Education.

(Source: P.A. 95-510, eff. 8-28-07.)

(105 ILCS 5/24A-6 rep.)

Section 20. The School Code is amended by repealing Section 24A-6.

Section 99. Effective date. This Act takes effect upon becoming law.

AN ACT concerning education.

Be it enacted by the People of the State of Illinois, represented in the General Assembly:

Section 1. Short title. This Act may be cited as the P-20 Longitudinal Education Data System Act.

Section 5. Findings; declarations. The General Assembly finds and declares all of the following:

(1) Sound data collection, reporting, and analysis are critical to building a State education system capable of ensuring all Illinois students are adequately prepared for college and the global workforce. School districts and institutions of higher learning can improve instructional and educational decision-making using data that is collected and made available by this State.

(2) Reliable and sufficient education data is necessary to ensure that this State bases education policy decisions on valid, objective measures of student outcomes. Publicly accessible data on State, school district, and school performance allows the citizens of this State to assess local and statewide investments in education.

(3) A national collaborative effort among State education officials, national education organizations, and

Public Act 096-0107

SB1828 Enrolled LRB096 10930 NHT 21182 b

state and federal policymakers has defined the essential elements a State longitudinal data system should contain. Public Law 110-69, the America COMPETES Act, requires state longitudinal data systems to include all 10 elements identified by this national, collaborative effort for states to qualify for federal funding opportunities. The federal American Recovery and Reinvestment Act of 2009 requires states to establish longitudinal data systems with all 10 elements to qualify for federal funding for education, public safety, and other government services.

(4) Public Law 110-134 requires the Illinois Early Learning Council to develop recommendations regarding the establishment of a unified data collection system for public early childhood education and development programs and services throughout this State, and those efforts should be coordinated with the development of this State's longitudinal data system.

(5) State education policymaking benefits from partnerships between State education agencies and entities with expertise in education research, including school districts, institutions of higher learning, and research organizations. This State should establish systems and processes to permit qualified researchers to assist with State evaluation and research functions in a manner consistent with privacy protection laws.

(6) State education systems and national policymaking

benefit from multi-state collaborations that are informed by high quality data collection systems.

(7) This State is committed to establishing and maintaining a longitudinal student unit record data system that educators and policymakers can use to analyze and assess student progress from early learning programs through postsecondary education and into employment. The State Board of Education, the Illinois Community College Board, and the Board of Higher Education have designed, built, and deployed some of the fundamental components of a longitudinal data system and have engaged in extensive efforts to effectively link and use available education data. However, the various education data components maintained by this State must be integrated and managed in a cooperative manner to establish a data-driven, decision-making environment for this State's education system.

(8) The longitudinal data system established by this Act is intended, among other purposes, to link student test scores, length of enrollment, and graduation records over time, as permitted by Section 1111(b)(3)(B) of the federal Elementary and Secondary Education Act (20 U.S.C. 6311(b)(3)(B)).

(9) Students will achieve improved learning outcomes as a result of the longitudinal data system established by this Act through instruction and educational programs informed by valid and reliable data.

(10) State use and management of education data must be in accordance with all legal requirements protecting student privacy and must protect personal information from intentional or accidental release to unauthorized persons and from intentional or accidental use for unauthorized purposes.

Section 10. Definitions. In this Act:

"Community College Board" means the Illinois Community College Board.

"Community colleges" has the meaning ascribed to that term in Section 1-2 of the Public Community College Act.

"Early learning" means any publicly funded education and care program supporting young children not yet enrolled in kindergarten.

"Elementary" means kindergarten through eighth grade.

"Institution of higher learning" has the meaning ascribed to that term in Section 10 of the Higher Education Student Assistance Act.

"Longitudinal data system" means a student unit record data system that links student records from early learning through the postsecondary level, which may consist of separate student unit record systems integrated through agreement and data transfer mechanisms.

"Privacy protection laws" means the federal Family

Public Act 096-0107
SB1828 Enrolled LRB096 10930 NHT 21182 b

Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232g), the Illinois School Student Records Act, the Personal Information Protection Act, and any other State or federal law relating to the confidentiality and protection of personally identifiable information.

"Research organization" means a governmental entity, institution of higher learning, public policy or advocacy organization, or other person or entity conducting educational research that (i) is qualified to perform educational research and protect the privacy of student data, (ii) is seeking to perform research for a non-commercial purpose authorized by privacy protection laws, and (iii) agrees to perform the research pursuant to a written agreement meeting the requirements of privacy protection laws and this Act.

"School" means any elementary or secondary educational institution, charter school, vocational school, special education facility, or any other elementary or secondary educational agency or institution, but does not include a non-public school.

"Secondary" means ninth through twelfth grade.

"State Board" means the State Board of Education.

"State Education Authorities" means the State Board, Community College Board, and Board of Higher Education.

Section 15. Establishment of the longitudinal data system and data warehouse.

(a) The State Education Authorities shall jointly establish and maintain a longitudinal data system by entering into one or more agreements that link early learning, elementary, and secondary school student unit records with institution of higher learning student unit records. To the extent authorized by this Section and Section 20 of this Act:

(1) the State Board is responsible for collecting and maintaining authoritative enrollment, completion, and student characteristic information on early learning, public school (kindergarten through grade 12), and non-public school (kindergarten through grade 12) students;

(2) the Community College Board is responsible for collecting and maintaining authoritative enrollment, completion, and student characteristic information on community college students; and

(3) the Board of Higher Education is responsible for collecting and maintaining authoritative enrollment, completion, and student characteristic information on students enrolled in institutions of higher learning, other than community colleges.

(b) On or before June 30, 2013, subject to the availability of funding through appropriations made specifically for the purposes of this Act, the State Education Authorities shall improve and expand the longitudinal data system to enable the State Education Authorities to perform or cause to be performed

all of the following activities and functions:

(1) Reduce, to the maximum extent possible, the data collection burden on school districts and institutions of higher learning by using data submitted to the system for multiple reporting and analysis functions.

(2) Provide authorized officials of early learning programs, schools, school districts, and institutions of higher learning with access to their own student-level data, summary reports, and data that can be integrated with additional data maintained outside of the system to inform education decision-making.

(3) Link data to instructional management tools that support instruction and assist collaboration among teachers and postsecondary instructors.

(4) Enhance and expand existing high school-to-postsecondary reporting systems to inform school and school district officials, education policymakers, and members of the public about public school students' performance in postsecondary education.

(5) Provide data reporting, analysis, and planning tools that assist with financial oversight, human resource management, and other education support functions.

(6) Improve student access to educational opportunities by linking data to student college and career planning portals, facilitating the submission of electronic transcripts and scholarship and financial aid

applications, and enabling the transfer of student records to officials of a school or institution of higher learning where a student enrolls or seeks or intends to enroll.

(7) Establish a public Internet web interface that provides non-confidential data reports and permits queries so that parents, the media, and other members of the public can more easily access information pertaining to statewide, district, and school performance.

(8) Provide research and reports to the General Assembly that assist with evaluating the effectiveness of specific programs and that enable legislators to analyze educational performance within their legislative districts.

(9) Allow the State Education Authorities to efficiently meet federal and State reporting requirements by drawing data for required reports from multiple State systems.

(10) Establish a system to evaluate teacher and administrator preparation programs using student academic growth as one component of evaluation.

(11) In accordance with a data sharing agreement entered into between the State Education Authorities and the Illinois Student Assistance Commission, establish procedures and systems to evaluate the relationship between need-based financial aid and student enrollment and success in institutions of higher learning.

(12) In accordance with data sharing agreements entered into between the State Education Authorities and health and human service agencies, establish procedures and systems to evaluate the relationship between education and other student and family support systems.

(13) In accordance with data sharing agreements entered into between the State Education Authorities and employment and workforce development agencies, establish procedures and systems to evaluate the relationship between education programs and outcomes and employment fields, employment locations, and employment outcomes.

(c) On or before June 30, 2013, subject to the availability of funding through appropriations made specifically for the purposes of this Act, the State Board shall establish a data warehouse that integrates data from multiple student unit record systems and supports all of the uses and functions of the longitudinal data system set forth in this Act. The data warehouse must be developed in cooperation with the Community College Board and the Board of Higher Education and must have the ability to integrate longitudinal data from early learning through the postsecondary level in accordance with one or more data sharing agreements entered into among the State Education Authorities. The data warehouse, as integrated with the longitudinal data system, must include, but is not limited to, all of the following elements:

(1) A unique statewide student identifier that

Public Act 096-0107
SB1828 Enrolled LRB096 10930 NHT 21182 b

connects student data across key databases across years. The unique statewide student identifier must not be derived from a student's social security number and must be provided to institutions of higher learning to assist with linkages between early learning through secondary and postsecondary data.

(2) Student-level enrollment, demographic, and program participation information, including information on participation in dual credit programs.

(3) The ability to match individual students' elementary and secondary test records from year to year to measure academic growth.

(4) Information on untested students in the elementary and secondary levels, and the reasons they were not tested.

(5) A teacher and administrator identifier system with the ability to match students to early learning, elementary, and secondary teachers and elementary and secondary administrators. Information able to be obtained only as a result of the linkage of teacher and student data through the longitudinal data system may not be used by a school district for decisions involving teacher pay or teacher benefits unless the district and the exclusive bargaining representative of the district's teachers, if any, have agreed to this use. Information able to be obtained only as a result of the linkage of teacher and student data through the longitudinal data system may not

be used by a school district as part of an evaluation under Article 24A of the School Code unless, in good faith cooperation with the school district's teachers or, where applicable, the exclusive bargaining representative of the school district's teachers, the school district has developed an evaluation plan or substantive change to an evaluation plan that specifically describes the school district's rationale for using this information for evaluations, how this information will be used as part of the evaluation process, and how this information will relate to evaluation standards. However, nothing in this subdivision (5) or elsewhere in this Act limits or restricts (i) a district's use of any local or State data that has been obtained independently from the linkage of teacher and student data through the longitudinal data system or (ii) a charter school's use of any local or State data in connection with teacher pay, benefits, or evaluations.

(6) Student-level transcript information, including information on courses completed and grades earned, from middle and high schools. The State Board shall establish a statewide course classification system based upon the federal School Codes for Exchange of Data or a similar course classification system. Each school district and charter school shall map its course descriptions to the statewide course classification system for the purpose of

State reporting. School districts and charter schools are not required to change or modify the locally adopted course descriptions used for all other purposes. The State Board shall establish or contract for the establishment of a technical support and training system to assist schools and districts with the implementation of this item (6) and shall, to the extent possible, collect transcript data using a system that permits automated reporting from district student information systems.

(7) Student-level college readiness test scores.

(8) Student-level graduation and dropout data.

(9) The ability to match early learning through secondary student unit records with institution of higher learning student unit record systems.

(10) A State data audit system assessing data quality, validity, and reliability.

(d) Using data provided to and maintained by the longitudinal data system, the State Education Authorities may, in addition to functions and activities specified elsewhere in this Section, perform and undertake the following:

(1) research for or on behalf of early learning programs, schools, school districts, or institutions of higher learning, which may be performed by one or more State Education Authorities or through agreements with research organizations meeting all of the requirements of this Act and privacy protection laws; and

(2) audits or evaluations of federal or State-supported education programs and activities to enforce federal or State legal requirements with respect to those programs. Each State Education Authority may assist another State Education Authority with audit, evaluation, or enforcement activities and may disclose education records with each other for those activities relating to any early learning through postsecondary program. The State Education Authorities may disclose student information to authorized officials of a student's former early learning program, school, or school district to assist with the evaluation of federal or State-supported education programs.

(e) In establishing, operating, and expanding the longitudinal data system, the State Education Authorities shall convene stakeholders and create opportunities for input and advice in the areas of data ownership, data use, research priorities, data management, confidentiality, data access, and reporting from the system. Such stakeholders include, but are not limited to, public and non-public institutions of higher learning, school districts, charter schools, non-public elementary and secondary schools, early learning programs, teachers, professors, parents, principals and administrators, school research consortiums, education policy and advocacy organizations, news media, the Illinois Student Assistance Commission, the Illinois Education Research Council, the

Department of Commerce and Economic Opportunity, the Illinois Early Learning Council, and the Legislative Research Unit.

(f) Representatives of the State Education Authorities shall report to and advise the Illinois P-20 Council on the implementation, operation, and expansion of the longitudinal data system.

(g) Appropriations made to the State Education Authorities for the purposes of this Act shall be used exclusively for expenses for the development and operation of the longitudinal data system. Authorized expenses of the State Education Authorities may relate to contracts with outside vendors for the development and operation of the system, agreements with other governmental entities or research organizations for authorized uses and functions of the system, technical support and training for entities submitting data to the system, or regular or contractual employees necessary for the system's development or operation.

Section 20. Collection and maintenance of data.

(a) The State Board is authorized to collect and maintain data from school districts, schools, and early learning programs and disclose this data to the longitudinal data system for the purposes set forth in this Act. The State Board shall collect data from charter schools with more than one campus in a manner that can be disaggregated by campus site. The State Board may also disclose data to the longitudinal data system

that the State Board is otherwise authorized by law to collect and maintain.

On or before July 1, 2010, the State Board shall establish procedures through which State-recognized, non-public schools may elect to participate in the longitudinal data system by disclosing data to the State Board for one or more of the purposes set forth in this Act.

Subject to the availability of funding through appropriations made specifically for the purposes of this Act, the State Board shall establish or contract for the establishment of a technical support and training system to assist school districts, schools, and early learning programs with data submission, use, and analysis.

(b) The Community College Board is authorized to collect and maintain data from community college districts and disclose this data to the longitudinal data system for the purposes set forth in this Act. The Community College Board may also disclose data to the longitudinal data system that the Community College Board is otherwise authorized by law to collect and maintain.

Subject to the availability of funding through appropriations made specifically for the purposes of this Act, the Community College Board shall establish or contract for the establishment of a technical support and training system to assist community colleges with data submission, use, and analysis.

Public Act 096-0107

SB1828 Enrolled LRB096 10930 NHT 21182 b

(c) The Board of Higher Education is authorized to collect and maintain data from any public institution of higher learning, other than community colleges, and disclose this data to the longitudinal data system for the purposes set forth in this Act. The Board of Higher Education may also disclose data to the longitudinal data system that the Board of Higher Education is otherwise authorized by law to collect and maintain.

Beginning on July 1, 2012, the Board of Higher Education is authorized to collect and maintain data from any non-public institution of higher learning enrolling one or more students receiving Monetary Award Program grants, pursuant to Section 35 of the Higher Education Student Assistance Act, and disclose this data to the longitudinal data system for the purposes set forth in this Act. Prior to July 1, 2012, any non-public institution of higher learning may elect to participate in the longitudinal data system by disclosing data for one or more of the purposes set forth in this Act to the Board of Higher Education or to a consortium that has contracted with the Board of Higher Education pursuant to this subsection (c).

The Board of Higher Education may contract with one or more voluntary consortiums of non-public institutions of higher learning established for the purpose of data sharing, research, and analysis. The contract may allow the consortium to collect data from participating institutions on behalf of the Board of Higher Education. The contract may provide for consultation

with a representative committee of participating institutions and a representative of one or more organizations representing the participating institutions prior to the use of data from the consortium for a data sharing arrangement entered into with any party other than a State Education Authority pursuant to Section 25 of this Act. The contract may further provide that individual institutions of higher learning shall have the right to opt out of specific uses of their data or portions thereof for reasons specified in the contract. Student-level data submitted by each institution of higher learning participating in a consortium that has contracted with the Board of Higher Education pursuant to this paragraph shall remain the property of that institution. Upon notice to the consortium and the Board of Higher Education, any non-public institution of higher learning shall have the right to remove its data from the consortium if the institution has reasonable cause to believe that there is a threat to the security of its data or its data is used in a manner that violates the terms of the contract between the consortium and the Board of Higher Education. In the event data is removed from a consortium pursuant to the preceding sentence, the data must be returned by the institution to the consortium after the basis for removal has been corrected. The data submitted from the consortium to the Board of Higher Education must be used only for agreed-upon purposes, as stated in the terms of the contract between the consortium and the Board of Higher Education. Non-public

Public Act 096-0107

SB1828 Enrolled LRB096 10930 NHT 21182 b

institutions of higher learning submitting student-level data to a consortium that has contracted with the Board of Higher Education pursuant to this paragraph shall not be required to submit student-level data to the Board of Higher Education.

Subject to the availability of funding through appropriations made specifically for the purposes of this Act, the Board of Higher Education shall establish or contract for the establishment of a technical support and training system to assist institutions of higher learning, other than community colleges, with data submission, use, and analysis. The Board of Higher Education may make available grant funding to a consortium of non-public institutions of higher learning to provide assistance in the development of a data collection system. The Board of Higher Education shall engage in a cooperative planning process with public and non-public institutions of higher learning and statewide higher education associations in connection with all of the activities authorized by this subsection (c).

(d) The State Education Authorities shall establish procedures and requirements relating to the submission of data authorized to be collected pursuant to this Section, including requirements for data specifications, quality, security, and timeliness. All early learning programs, schools, school districts, and institutions of higher learning subject to the data collection authority of a State Education Authority pursuant to this Section shall comply with the State Education

Authority's procedures and requirements for data submissions. A State Education Authority may require that staff responsible for collecting, validating, and submitting data participate in training and technical assistance offered by this State if data is not submitted in accordance with applicable procedures and requirements.

Section 25. Data sharing.

(a) The State Education Authorities may disclose data from the longitudinal data system collected pursuant to Section 20 of this Act only in connection with a data sharing arrangement meeting the requirements of this Section.

(b) Any State agency, board, authority, or commission may enter into a data sharing arrangement with one or more of the State Education Authorities to share data to support the research and evaluation activities authorized by this Act. State Education Authorities may also enter into data sharing Arrangements with other governmental entities, institutions of higher learning, and research organizations that support the research and evaluation activities authorized by this Act.

(c) Any data sharing arrangement entered into pursuant to this Section must:

(1) be permissible under and undertaken in accordance with privacy protection laws;

(2) be approved by the following persons:

(A) the State Superintendent of Education or his or her designee for the use of early learning, public school, and non-public school student data;

(B) the chief executive officer of the Community College Board or his or her designee for the use of community college student data; and

(C) the executive director of the Board of Higher Education or his or her designee for the use of student data from an institution of higher learning, other than a community college;

(3) not permit the personal identification of any person by individuals other than authorized representatives of the recipient entity that have legitimate interests in the information;

(4) ensure the destruction or return of the data when no longer needed for the authorized purposes under the data sharing arrangement; and

(5) be performed pursuant to a written agreement with the recipient entity that does the following:

(A) specifies the purpose, scope, and duration of the data sharing arrangement;

(B) requires the recipient of the data to use personally identifiable information from education records to meet only the purpose or purposes of the data sharing arrangement stated in the written agreement;

(C) describes specific data access, use, and

Public Act 096-0107

SB1828 Enrolled LRB096 10930 NHT 21182 b

security restrictions that the recipient will undertake; and

(b) includes such other terms and provisions as the State Education Authorities deem necessary to carry out the intent and purposes of this Act.

Section 30. Subject to privacy protection laws. The collection, use, maintenance, disclosure, and sharing of data authorized by this Act must be conducted in accordance with privacy protection laws. The State Education Authorities shall each develop security measures and procedures that protect personal information from intentional or accidental release to unauthorized persons and from intentional or accidental use for unauthorized purposes.

Section 35. No impact on existing authority. This Act does not modify or diminish any responsibilities or authority that a State Education Authority or the State Education Authorities collectively may otherwise have under law with respect to the collection, use, maintenance, disclosure, and sharing of data.

Section 40. Evaluation. Subject to the availability of funding through appropriations made specifically for the purposes of this Act, the State Education Authorities shall contract with an independent outside evaluator for oversight of the development and operation of the longitudinal data system. The independent outside evaluator shall annually submit a report to the State Education Authorities, the Illinois P-20 Council, the Speaker and Minority Leader of the House of Representatives, and the President and Minority Leader of the Senate. The report shall include without limitation (i) an evaluation of the extent to which the system is being developed and operated to achieve the purposes, objectives, and requirements of this Act; (ii) an evaluation of the oversight and governance of the system by the State Education Authorities and any recommendations to improve the oversight and governance of the system; and (iii) an evaluation of the security measures and procedures developed by the State Education Authorities to protect personally identifiable information and any recommendations to further ensure the privacy of personally identifiable information.

Section 500. The School Code is amended by changing Section 27A-5 as follows:

(105 ILCS 5/27A-5)

Sec. 27A-5. Charter school; legal entity; requirements.

(a) A charter school shall be a public, nonsectarian, nonreligious, non-home based, and non-profit school. A charter school shall be organized and operated as a nonprofit corporation or other discrete, legal, nonprofit entity authorized under the laws of the State of Illinois.

(b) A charter school may be established under this Article by creating a new school or by converting an existing public school or attendance center to charter school status. Beginning on the effective date of this amendatory Act of the 93rd General Assembly, in all new applications submitted to the State Board or a local school board to establish a charter school in a city having a population exceeding 500,000, operation of the charter school shall be limited to one campus. The changes made to this Section by this amendatory Act of the 93rd General Assembly do not apply to charter schools existing or approved on or before the effective date of this amendatory Act.

(c) A charter school shall be administered and governed by its board of directors or other governing body in the manner provided in its charter. The governing body of a charter school shall be subject to the Freedom of Information Act and the Open Meetings Act.

(d) A charter school shall comply with all applicable health and safety requirements applicable to public schools under the laws of the State of Illinois.

(e) Except as otherwise provided in the School Code, a charter school shall not charge tuition; provided that a charter school may charge reasonable fees for textbooks, instructional materials, and student activities.

(f) A charter school shall be responsible for the management and operation of its fiscal affairs including, but not limited to, the preparation of its budget. An audit of each charter school's finances shall be conducted annually by an outside, independent contractor retained by the charter school.

(g) A charter school shall comply with all provisions of this Article and its charter. A charter school is exempt from all other State laws and regulations in the School Code governing public schools and local school board policies, except the following:

(1) Sections 10-21.9 and 34-18.5 of the School Code regarding criminal history records checks and checks of the Statewide Sex Offender Database of applicants for employment;

(2) Sections 24-24 and 34-84A of the School Code regarding discipline of students;

(3) The Local Governmental and Governmental Employees Tort Immunity Act;

(4) Section 108.75 of the General Not For Profit Corporation Act of 1986 regarding indemnification of officers, directors, employees, and agents;

(5) The Abused and Neglected Child Reporting Act;

(6) The Illinois School Student Records Act; ~~and~~

(7) Section 10-17a of the School Code regarding school report cards; ~~and~~

(8) The P-20 Longitudinal Education Data System Act.

(h) A charter school may negotiate and contract with a

school district, the governing body of a State college or university or public community college, or any other public or for-profit or nonprofit private entity for: (i) the use of a school building and grounds or any other real property or facilities that the charter school desires to use or convert for use as a charter school site, (ii) the operation and maintenance thereof, and (iii) the provision of any service, activity, or undertaking that the charter school is required to perform in order to carry out the terms of its charter. However, a charter school that is established on or after the effective date of this amendatory Act of the 93rd General Assembly and that operates in a city having a population exceeding 500,000 may not contract with a for-profit entity to manage or operate the school during the period that commences on the effective date of this amendatory Act of the 93rd General Assembly and concludes at the end of the 2004-2005 school year. Except as provided in subsection (i) of this Section, a school district may charge a charter school reasonable rent for the use of the district's buildings, grounds, and facilities. Any services for which a charter school contracts with a school district shall be provided by the district at cost. Any services for which a charter school contracts with a local school board or with the governing body of a State college or university or public community college shall be provided by the public entity at cost.

(i) In no event shall a charter school that is established

by converting an existing school or attendance center to charter school status be required to pay rent for space that is deemed available, as negotiated and provided in the charter agreement, in school district facilities. However, all other costs for the operation and maintenance of school district facilities that are used by the charter school shall be subject to negotiation between the charter school and the local school board and shall be set forth in the charter.

(j) A charter school may limit student enrollment by age or grade level.

(Source: P.A. 93-3, eff. 4-16-03; 93-909, eff. 8-12-04; 94-219, eff. 7-14-05.)

Section 505. The Illinois School Student Records Act is amended by changing Section 6 as follows:

(105 ILCS 10/6) (from Ch. 122, par. 50-6)

Sec. 6. (a) No school student records or information contained therein may be released, transferred, disclosed or otherwise disseminated, except as follows:

(1) To a parent or student or person specifically designated as a representative by a parent, as provided in paragraph (a) of Section 5;

(2) To an employee or official of the school or school district or State Board with current demonstrable educational or administrative interest in the student, in

furtherance of such interest;

(3) To the official records custodian of another school within Illinois or an official with similar responsibilities of a school outside Illinois, in which the student has enrolled, or intends to enroll, upon the request of such official or student;

(4) To any person for the purpose of research, statistical reporting, or planning, provided that such research, statistical reporting, or planning is permissible under and undertaken in accordance with the federal Family Educational Rights and Privacy Act (20 U.S.C. 1232g) ~~no student or parent can be identified from the information released and the person to whom the information is released signs an affidavit agreeing to comply with all applicable statutes and rules pertaining to school student records~~;

(5) Pursuant to a court order, provided that the parent shall be given prompt written notice upon receipt of such order of the terms of the order, the nature and substance of the information proposed to be released in compliance with such order and an opportunity to inspect and copy the school student records and to challenge their contents pursuant to Section 7;

(6) To any person as specifically required by State or federal law;

(6.5) To juvenile authorities when necessary for the discharge of their official duties who request information prior to adjudication of the student and who certify in writing that the information will not be disclosed to any other party except as provided under law or order of court. For purposes of this Section "juvenile authorities" means: (i) a judge of the circuit court and members of the staff of the court designated by the judge; (ii) parties to the proceedings under the Juvenile Court Act of 1987 and their attorneys; (iii) probation officers and court appointed advocates for the juvenile authorized by the judge hearing the case; (iv) any individual, public or private agency having custody of the child pursuant to court order; (v) any individual, public or private agency providing education, medical or mental health service to the child when the requested information is needed to determine the appropriate service or treatment for the minor; (vi) any potential placement provider when such release is authorized by the court for the limited purpose of determining the appropriateness of the potential placement; (vii) law enforcement officers and prosecutors; (viii) adult and juvenile prisoner review boards; (ix) authorized military personnel; (x) individuals authorized by court;

(7) Subject to regulations of the State Board, in connection with an emergency, to appropriate persons if the knowledge of such information is necessary to protect the

Public Act 096-0107
SB1828 Enrolled LRB096 10930 NHT 21182 b

health or safety of the student or other persons;

(8) To any person, with the prior specific dated written consent of the parent designating the person to whom the records may be released, provided that at the time any such consent is requested or obtained, the parent shall be advised in writing that he has the right to inspect and copy such records in accordance with Section 5, to challenge their contents in accordance with Section 7 and to limit any such consent to designated records or designated portions of the information contained therein;

(9) To a governmental agency, or social service agency contracted by a governmental agency, in furtherance of an investigation of a student's school attendance pursuant to the compulsory student attendance laws of this State, provided that the records are released to the employee or agent designated by the agency;

(10) To those SHOCAP committee members who fall within the meaning of "state and local officials and authorities", as those terms are used within the meaning of the federal Family Educational Rights and Privacy Act, for the purposes of identifying serious habitual juvenile offenders and matching those offenders with community resources pursuant to Section 5-145 of the Juvenile Court Act of 1987, but only to the extent that the release, transfer, disclosure, or dissemination is consistent with the Family Educational Rights and Privacy Act; or

Public Act 096-0107

SB1828 Enrolled LRB096 10930 NHT 21182 b

(11) To the Department of Healthcare and Family Services in furtherance of the requirements of Section 2-3.131, 3-14.29, 10-28, or 34-18.26 of the School Code or Section 10 of the School Breakfast and Lunch Program Act.

(12) To the State Board or another State government agency or between or among State government agencies in order to evaluate or audit federal and State programs or perform research and planning, but only to the extent that the release, transfer, disclosure, or dissemination is consistent with the federal Family Educational Rights and Privacy Act (20 U.S.C. 1232g ~~1221 et seq.~~).

(b) No information may be released pursuant to subparagraphs (3) or (6) of paragraph (a) of this Section 6 unless the parent receives prior written notice of the nature and substance of the information proposed to be released, and an opportunity to inspect and copy such records in accordance with Section 5 and to challenge their contents in accordance with Section 7. Provided, however, that such notice shall be sufficient if published in a local newspaper of general circulation or other publication directed generally to the parents involved where the proposed release of information is pursuant to subparagraph 6 of paragraph (a) in this Section 6 and relates to more than 25 students.

(c) A record of any release of information pursuant to this Section must be made and kept as a part of the school student record and subject to the access granted by Section 5. Such

record of release shall be maintained for the life of the school student records and shall be available only to the parent and the official records custodian. Each record of release shall also include:

(1) The nature and substance of the information released;

(2) The name and signature of the official records custodian releasing such information;

(3) The name of the person requesting such information, the capacity in which such a request has been made, and the purpose of such request;

(4) The date of the release; and

(5) A copy of any consent to such release.

(d) Except for the student and his parents, no person to whom information is released pursuant to this Section and no person specifically designated as a representative by a parent may permit any other person to have access to such information without a prior consent of the parent obtained in accordance with the requirements of subparagraph (B) of paragraph (a) of this Section.

(e) Nothing contained in this Act shall prohibit the publication of student directories which list student names, addresses and other identifying information and similar publications which comply with regulations issued by the State Board.

(Source: P.A. 95-331, eff. 8-21-07; 95-793, eff. 1-1-09.)

Section 999. Effective date. This Act takes effect upon becoming law.

Appendix A1-5

Student Outcome Goals

The Student Outcome Goals table below details data from recent years and goals for future improvement in student performance on state and national assessments, high school graduation rates, and college enrollment rates, overall and by subgroup. In addition to requested data and goals for performance on the NAEP, ISAT, and PSAE assessments, the table also presents information on student performance relative to the ACT College Readiness Benchmarks. The ACT College Readiness Benchmarks will provide a consistent measure of college readiness over the course of the RTTT grant period.

Overall Student Outcome Goals								
	SY06-07	**SY07-08**	**SY08-09**	**SY09-10**	**SY10-11**	**SY11-12**	**SY12-13**	**SY13-14**
NAEP: Grade 4 Mathematics	**30.72**	**NA**	**30.93**		**33.00**	**39.00**	**47.00**	**55.00**
NAEP: Grade 4 Reading Language Arts (% at proficient level)	**24.19**	**NA**	**NA**		**28.00**	**35.00**	**42.00**	**51.00**
NAEP: Grade 8 Mathematics	**23.81**	**NA**	**25.89**		**29.00**	**36.00**	**43.00**	**52.00**
NAEP: Grade 8 Reading Language Arts	**27.46**	**NA**	**NA**		**31.00**	**37.00**	**45.00**	**53.00**
ISAT: Grade 3 Math (% at meets and exceeds)	**87**	**85**	**85**		**86**	**88**	**91**	**94**
ISAT: Grade 3 Reading	**73**	**72**	**72**		**75**	**78**	**81**	**85**
ISAT: Grade 4 Math	**86**	**85**	**86**		**88**	**90**	**92**	**95**
ISAT: Grade 4 Reading	**74**	**73**	**74**		**77**	**80**	**84**	**88**
ISAT: Grade 5 Math	**83**	**81**	**83**		**85**	**87**	**90**	**93**
ISAT: Grade 5 Reading	**70**	**74**	**74**		**78**	**81**	**85**	**90**
ISAT: Grade 6 Math	**81**	**83**	**82**		**85**	**87**	**90**	**93**
ISAT: Grade 6 Reading	**73**	**79**	**80**		**83**	**86**	**90**	**94**
ISAT: Grade 7	**79**	**80**	**83**		**85**	**87**	**91**	**95**

Math								
ISAT: Grade 7 Reading	**73**	**78**	**78**		**81**	**84**	**88**	**92**
ISAT: Grade 8 Math	**81**	**80**	**82**		**83**	**86**	**89**	**92**
ISAT: Grade 8 Reading	**82**	**81**	**84**		**86**	**88**	**90**	**92**
PSAE: Math (% at meets & exceeds)	**53**	**53**	**52**		**56**	**59**	**64**	**69**
PSAE: Reading	**54**	**53**	**57**		**60**	**63**	**67**	**71**
ACT CRB: Math (% meets CRB)	**37**	**37**	**37**		**40**	**44**	**49**	**55**
ACT CRB: Reading	**42**	**43**	**45**		**48**	**51**	**56**	**62**
High School Graduation Rate	**85.9**	**83.1**	**88.8**		**90.0**	**92.0**	**95.0**	**98.0**
Increasing College Enrollment[4],[5] (% increase over previous year)	**1.0**	**5.5**	**3.9**		**4.0**	**4.3**	**4.6**	**5.0**
Subgroup Student Outcome Goals								
Black Subgroup								
NAEP: Grade 4 Mathematics	**9.04**	**NA**	**10.30**		**16.00**	**24.00**	**37.00**	**50.00**
NAEP: Grade 4 Reading Language Arts	**12.55**	**NA**	**NA**		**19.00**	**29.00**	**40.00**	**52.00**
NAEP: Grade 8 Mathematics	**6.29**	**NA**	**8.13**		**13.00**	**21.00**	**35.00**	**50.00**
NAEP: Grade 8 Reading Language Arts	**9.70**	**NA**	**NA**		**16.00**	**24.00**	**37.00**	**50.00**
ISAT: Grade 3 Math	**68**	**68**	**70**		**74**	**78**	**84**	**92**
ISAT: Grade 3 Reading	**51**	**55**	**57**		**62**	**68**	**75**	**85**
ISAT: Grade 4 Math	**68**	**69**	**71**		**75**	**79**	**85**	**92**

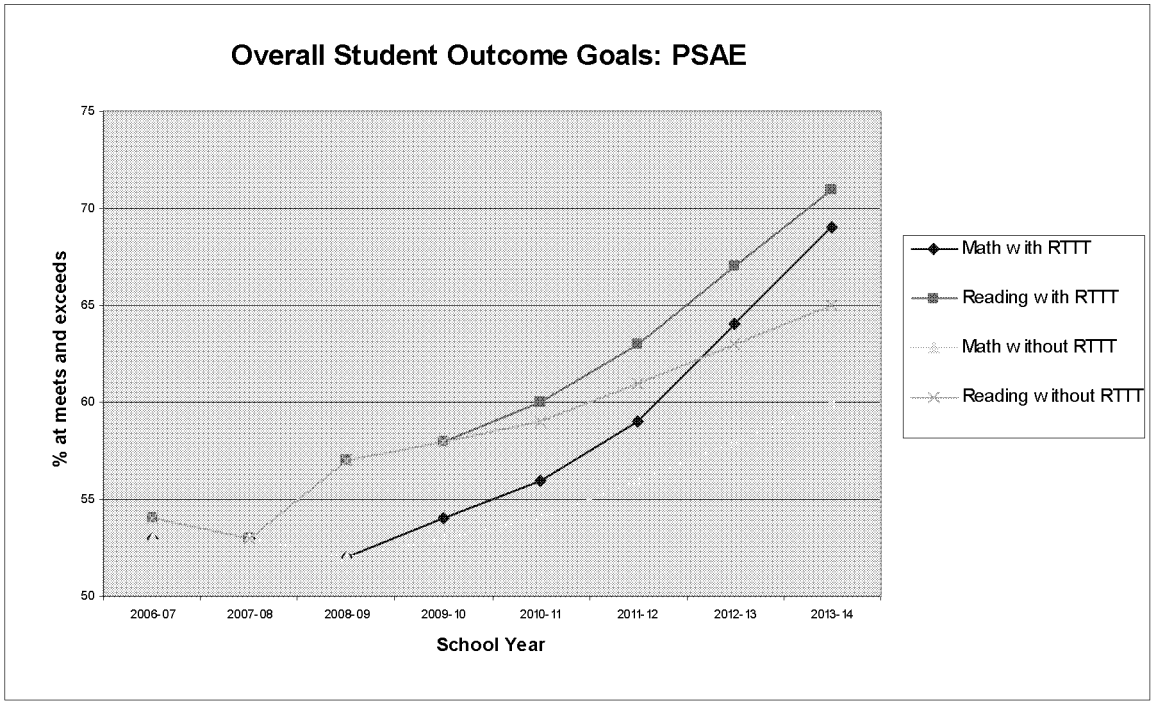
[4] Illinois wants to continue to see increases from 3 – 5% in college enrollment per year through the life of the Race to the Top grant period. In School Year 2011-2012 and beyond, ISBE will have enrollment information that extends nationwide through State Fiscal Stabilization Fund Phase II data collection systems.

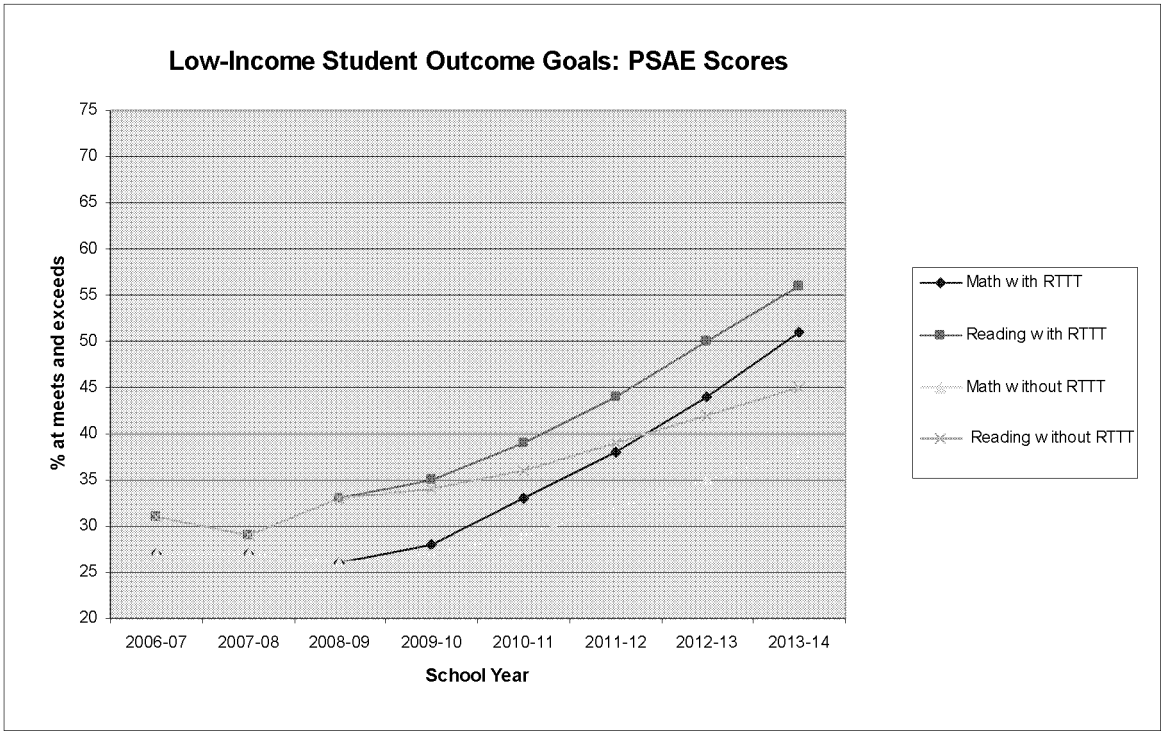
[5] This data disaggregated by subgroup is not currently available. Upon implementation of programs under the State Fiscal Stabilization Fund, data disaggregated by subgroup will be available. The 2009 percentage increase is based on preliminary headcount enrollment data for the Fall 2009 school term.

ISAT: Grade 4 Reading	**50**	**56**	**56**		**60**	**66**	**74**	**88**
ISAT: Grade 5 Math	**60**	**63**	**66**		**71**	**76**	**83**	**90**
ISAT: Grade 5 Reading	**45**	**56**	**56**		**63**	**70**	**79**	**89**
ISAT: Grade 6 Math	**61**	**64**	**65**		**70**	**75**	**82**	**90**
ISAT: Grade 6 Reading	**53**	**63**	**65**		**70**	**76**	**84**	**92**
ISAT: Grade 7 Math	**58**	**60**	**65**		**70**	**76**	**84**	**92**
ISAT: Grade 7 Reading	**55**	**64**	**63**		**68**	**74**	**82**	**90**
ISAT: Grade 8 Math	**62**	**61**	**64**		**68**	**74**	**82**	**90**
ISAT: Grade 8 Reading	**70**	**69**	**71**		**75**	**79**	**85**	**92**
PSAE: Math	**19**	**21**	**19**		**24**	**31**	**39**	**50**
PSAE: Reading	**28**	**25**	**28**		**33**	**39**	**45**	**51**
ACT CRB: Math	**9**	**10**	**9**		**16**	**26**	**38**	**50**
ACT CRB: Reading	**15**	**16**	**17**		**23**	**30**	**39**	**50**
High School Graduation Rate	**73.8**	**74.9**	**76.7**		**81.0**	**86.0**	**90.0**	**95.0**
Hispanic Subgroup								
NAEP: Grade 4 Mathematics	**17.60**	**NA**	**18.82**		**23.00**	**31.00**	**42.00**	**53.00**
NAEP: Grade 4 Reading Language Arts	**14.68**	**NA**	**NA**		**21.00**	**28.00**	**39.00**	**50.00**
NAEP: Grade 8 Mathematics	**11.81**	**NA**	**15.91**		**21.00**	**28.00**	**39.00**	**50.00**
NAEP: Grade 8 Reading Language Arts	**15.20**	**NA**	**NA**		**22.00**	**30.00**	**41.00**	**52.00**
ISAT: Grade 3 Math	**85**	**78**	**78**		**81**	**84**	**88**	**92**
ISAT: Grade 3 Reading	**66**	**55**	**55**		**61**	**68**	**76**	**86**
ISAT: Grade 4 Math	**86**	**77**	**80**		**82**	**85**	**88**	**92**
ISAT: Grade 4 Reading	**69**	**59**	**60**		**65**	**71**	**79**	**88**
ISAT: Grade 5	**82**	**74**	**76**		**79**	**82**	**86**	**90**

Math								
ISAT: Grade 5 Reading	**64**	**58**	**60**		**65**	**70**	**77**	**87**
ISAT: Grade 6 Math	**77**	**77**	**76**		**79**	**82**	**86**	**90**
ISAT: Grade 6 Reading	**62**	**68**	**69**		**73**	**78**	**83**	**89**
ISAT: Grade 7 Math	**75**	**75**	**78**		**82**	**85**	**88**	**91**
ISAT: Grade 7 Reading	**64**	**68**	**67**		**70**	**75**	**81**	**89**
ISAT: Grade 8 Math	**77**	**75**	**76**		**79**	**82**	**86**	**90**
ISAT: Grade 8 Reading	**76**	**74**	**77**		**80**	**83**	**87**	**91**
PSAE: Math	**33**	**33**	**32**		**37**	**42**	**49**	**55**
PSAE: Reading	**33**	**31**	**37**		**43**	**49**	**56**	**63**
ACT CRB: Math	**18**	**18**	**17**		**23**	**30**	**39**	**50**
ACT CRB: Reading	**20**	**21**	**25**		**30**	**35**	**42**	**49**
High School Graduation Rate	**73.4**	**75.7**	**76.8**		**81.0**	**86.0**	**90.0**	**95.0**
Low-Income Subgroup								
NAEP: Grade 4 Mathematics	**16.10**	**NA**	**16.84**		**21.00**	**29.00**	**40.00**	**52.00**
NAEP: Grade 4 Reading Language Arts	**13.55**	**NA**	**NA**		**20.00**	**27.00**	**38.00**	**50.00**
NAEP: Grade 8 Mathematics	**11.34**	**NA**	**12.77**		**19.00**	**26.00**	**37.00**	**50.00**
NAEP: Grade 8 Reading Language Arts	**14.18**	**NA**	**NA**		**21.00**	**28.00**	**39.00**	**51.00**
ISAT: Grade 3 Math	**76**	**75**	**76**		**79**	**81**	**86**	**91**
ISAT: Grade 3 Reading	**57**	**57**	**58**		**63**	**69**	**78**	**88**
ISAT: Grade 4 Math	**76**	**75**	**77**		**80**	**82**	**86**	**91**
ISAT: Grade 4 Reading	**58**	**59**	**59**		**63**	**69**	**78**	**88**
ISAT: Grade 5 Math	**70**	**70**	**72**		**75**	**79**	**84**	**90**
ISAT: Grade 5 Reading	**53**	**58**	**59**		**64**	**70**	**79**	**89**

ISAT: Grade 6 Math	**70**	**72**	**72**		**75**	**79**	**84**	**90**
ISAT: Grade 6 Reading	**58**	**66**	**68**		**72**	**77**	**84**	**90**
ISAT: Grade 7 Math	**67**	**68**	**72**		**76**	**81**	**86**	**91**
ISAT: Grade 7 Reading	**59**	**65**	**65**		**69**	**75**	**82**	**89**
ISAT: Grade 8 Math	**69**	**68**	**71**		**75**	**79**	**85**	**91**
ISAT: Grade 8 Reading	**72**	**70**	**74**		**77**	**81**	**86**	**91**
PSAE: Math	**27**	**27**	**26**		**30**	**35**	**42**	**49**
PSAE: Reading	**31**	**29**	**33**		**33**	**38**	**44**	**51**
ACT CRB: Math	**14**	**14**	**14**		**39**	**44**	**50**	**56**
ACT CRB: Reading	**19**	**19**	**22**		**39**	**44**	**50**	**56**
High School Graduation Rate	**74.9**	**78.2**	**76.6**		**81.0**	**86.0**	**90.0**	**95.0**


Overall Student Outcome Goals: PSAE
% at meets and exceeds
75
70
65
60
55
50
2006-07
2007-08
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14
School Year
Math with RTTT
Reading with RTTT
Math without RTTT
Reading without RTTT


Low-Income Student Outcome Goals: PSAE Scores
% at meets and exceeds
75
70
65
60
55
50
45
40
35
30
25
20
2006-07
2007-08
2008-09
2009-10
2010-11
2011-12
2012-13
2013-14
School Year
Math with RTTT
Reading with RTTT
Math without RTTT
Reading without RTTT

Appendix A2-1

Description of Multi-State Collaborations

The State of Illinois is a leading participant in the Common Core State Standards Initiative, involving 48 states and 3 territories, that is collaboratively developing and adopting a core set of academic standards in mathematics and English language arts. In addition, the State will participate in the related multi-state common assessment effort to jointly develop and implement common, high-quality assessments aligned with the Common Core K-12 standards. The State's participation in two other multi-state networks will inform its revision of the Learning Standards and implementation of new state assessments—its participation in the American Diploma Project, and its membership in the Partnership for 21st Century Skills State Leadership Network.

In addition, the State has joined three other multi-state collaborations that will help provide technical expertise, capacity, and insights from other states' experiences to assist with the implementation of the human capital and turnaround components of the State's plan as set forth in this application.

State Collaborative for Great Teachers and Leaders

Putting a great teacher in every classroom and a great leader in every school is an incredibly challenging task. Recent decades have been marked by a number of well-intentioned efforts that were ultimately unsuccessful. The American Recovery and Reinvestment Act, as well as other federal initiatives, create a unique opportunity for states to address these issues boldly. To succeed in the future where we have often failed in the past, states must think bigger and act with greater focus and consistency. Recognizing that states will accomplish more in collaboration than in isolation, Illinois has joined a small group of states and leading national organizations will explore a partnership to accelerate the pace of change while maintaining high quality standards.

Benefits of the Collaborative

The goal of the State Collaborative for Great Teachers and Leaders is to provide a network for states to lead the nation on improving key policies related to teacher and leader effectiveness. Members of the Collaborative will seek logistical and technical support from organizations with extensive experience in the design and implementation of teacher and leader education reform, such as EducationCounsel, the Joyce Foundation, New Leaders for New Schools, and The New Teacher Project.

Race to the Top and other federal leverage points create new momentum toward bold reform, open powerful new federal funding streams, and set the stage for re-prioritizing existing federal programs. The State Collaborative will capitalize on these opportunities, initially, by providing participating states with relevant content for and guidance on the Great Teachers and Leaders sections of their Race to the Top proposals, as well as organizing and facilitating phone and in-person working sessions during which participants will discuss strategies and local challenges.

Moving forward after the Race to the Top proposal submission, members of the Collaborative will continue to benefit through:

- **Joint problem solving and mutual assistance.** States that move in bold policy directions will be engaged for a period of years in building new capacity at the state and local level. In many areas, states will find few useful precedents and best practices and will be required to start from scratch in building and implementing systems to drive and monitor teacher and leader

effectiveness. States working toward the same goals will progress more quickly and with greater success if they pool intellectual resources and design capacity. States in the Collaborative will meet regularly to share plans and strategies related to teachers and leaders.

- **Open sharing of programs, plans, and results.** No state will achieve all its goals in the initial implementation of its reforms. There will be many pilots and iterations that lead, over time, to refined learnings and more efficient systems. States will attain the best outcomes by benefiting from the experiences of fellow states, including valuable data and research. In this way, states will not be competitors but partners.

Mass Insight Education Partnership Zone Initiative

Illinois and a select few other states have been chosen by Mass Insight Education & Research Institute to participate in a three-year, $70-million effort to create scalable and sustainable strategies for turning around clusters of their lowest-performing schools, starting with a selected group of one or two proof point districts in each state. A two-year extension is slated to follow the three-year initial effort. Mass Insight was founded in 1997, and is an independent non-profit that organizes public schools, higher education, business, and state government to significantly improve student performance, with a focus on closing achievement gaps. The State of Illinois will maximize the planning, policy, budgetary, communications, and other support activities available through this multi-state project to support the Illinois Partnership Zone, described in the narrative for Criterion (E)(2).

The proof point states initially will establish Partnership Zones in one or two districts with clusters of three to five low-performing schools. Each cluster of schools will be supported by a Lead Partner – an organization that directly supports principals in turning around schools. Lead Partners provide academic and student support services to schools as well as coordinate and focus the turnaround efforts within the schools, helping to overcome the chaotic "program-itis" that has undermined previous reform efforts. Lead Partners, staffed by experienced school staff and engaged by districts and states, can either be independent organizations or autonomous units created by the district central office.

The Partnership Zone is a hybrid model that combines the benefits of a district with the operating flexibility of charter schools. Because Zone schools remain inside the district, they can continue to tap into the scale efficiencies of many central office services. However, Zone schools also afford principals and Lead Partners the freedom to make staffing, scheduling, curriculum and salary decisions in return for being held accountable for dramatic student achievement gains within two years. These flexible conditions empower educators to be more innovative, more dynamic, and more responsive to the needs of their students.

Since early 2009, Mass Insight has organized a network of 14 states committed to investing new federal funds in effective and innovative strategies required to turn around the bottom 5% of their schools. Mass Insight's State Development Group has participated in monthly conference calls to share lessons learned and promising practices for turn around strategies and examine the feasibility of establishing strong Partnership Zones.

The six proof point states were selected from this group based on:

- A commitment to the Partnership Zone framework set forth in 2007 report, *The Turnaround Challenge*;
- A commitment to investing the resources necessary for successful turnaround; and,
- Alignment and support of state leadership.

Mass Insight staff and a leading group of National Collaborators will assist states and districts in planning, state policy analysis, human capital analysis, district and school budget audits, communications/outreach, and other critical turnaround activities. National Collaborators include: Education Counsel, Education First, Education Resource Strategies, The New Teacher Project, and the Parthenon Group.

States plan to launch Partnership Zones on a flexible but aggressive timeline with some states implementing Zones as early as the 2010-11 school year and others the following year.

Planning and development for the Partnership Zone Initiative has been funded with a $1.5 million, two-year grant from the Carnegie Corporation of New York, along with a partial match from the Bill & Melinda Gates Foundation. Mass Insight and its partners are committed to raising an additional $30 million of private funding for the three-year initial program and further funding for a two-year extension; however, the majority of the school level funding for the initiative will come from targeted 1003g School Improvement Grants. Most of those funds will go toward increased teacher compensation to support extended learning time in Partnership Zone schools.

Multi-State Teacher Performance Assessment Consortium

A Nationally-Available Performance Assessment for America's Teachers

One of the few areas of consensus among education policy makers, practitioners and the general public today is that improving teacher quality is one of the most direct and promising strategies for improving public education outcomes in the United States. Furthermore, this strategy is particularly critical for groups of children who have historically been taught by the least qualified teachers. Interest is intensifying in how to go beyond current measures of teacher qualifications to measures that more closely evaluate teachers' effectiveness in relation to student learning.

However, existing federal, state, and local policies for defining and measuring teacher quality rely almost exclusively on classroom observations by principals that differentiate little among teachers and offer little useful feedback, on the one hand, or teachers' course-taking records plus paper-and-pencil tests of basic academic skills and disciplinary subject matter knowledge that are poor predictors of later effectiveness in the classroom, on the other.

It has become clear that new strategies for evaluating teacher competence and effectiveness are needed. *Any serious and systematic effort to improve the quality of teachers entering or already practicing in our nation's schools must include development of reliable and valid measures of how well they perform in the classroom, linked to multiple sources of evidence of their effectiveness in promoting learning for students.*

Systematic measures of teachers' performance that evaluate what teachers' classroom effectiveness have recently been developed in several states and districts. At the state level, these are being used either at the beginning of the career, as a basis for the initial licensing recommendation (California, Oregon), or in the teacher induction period, as a basis for moving from a probationary to a professional license (Connecticut). At the local level, new standards-based evaluations of practice use similar indicators to assess performance in systematic ways throughout the career. Veteran teachers can be further evaluated against high

standards of accomplishment through the assessments of the National Board of Professional Teaching Standards.

Teachers' ratings on a number of these assessments have been found to predict their students' value-added achievement on state tests, as well as to help improve teachers' practices.[6] Thus, the possibility now exists for creating a continuum of performance assessments – from initial entry to the granting of a professional (second-tier) license, through tenure and onto determinations of high levels of accomplishment – that can evaluate and help support improvements in teachers' effectiveness.

The Teacher Performance Assessment Consortium

A partnership to create the launching pad for such a continuum has been formed by the Council of Chief State School Officers (CCSSO), the American Association of Colleges of Teacher Education (AACTE), and a team of researchers at Stanford University and the University of Washington that has worked on assessments at every juncture of the continuum. In partnership with CCSSO and AACTE, this team has undertaken to develop, pilot, and validate two nationally available Teacher Performance Assessments (TPA), which will be made available to states and programs that wish to improve their capacity to evaluate teachers for initial licensure (Tier 1) and professional licensure (Tier 2, following the probationary period) based on concrete evidence of effectiveness, not just grades or paper-and-pencil tests.

States that have thus far indicated interest in participating in the Teacher Performance Assessment Consortium include: California, Colorado, Illinois, Iowa, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New York, North Carolina, Ohio, Tennessee, Virginia, Washington, West Virginia, and Wisconsin.

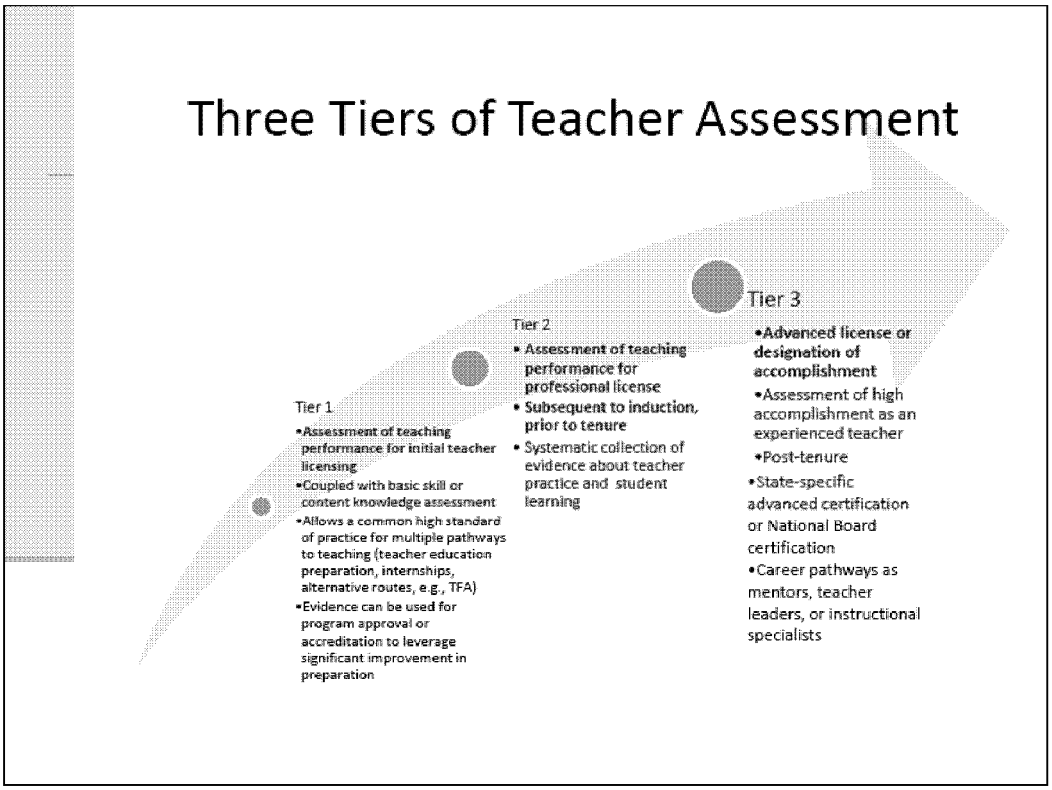
Based on the highly successful Performance Assessment for California Teachers (PACT), the first of these assessments will support teacher development and evaluation for the initial license across the wide variety of routes into teaching, and will also increase the consistency with which teacher licensure decisions are made across states. Used as information for the accreditation process, the assessment results can leverage improvements in preparation programs. Used as information for induction programs, it can also guide more effective mentoring for beginning teachers.

---

[6] Wilson, M. & Hallum, P.J. (2006). *Using student achievement test scores as evidence of external validity for indicators of teacher quality: Connecticut's Beginning Educator Support and Training program.* Berkeley, CA: University of California at Berkeley; Milanowski, A.T., Kimball, S.M. & White, B. (2004). *The relationship between standards-based teacher evaluation scores and student achievement.* University of Wisconsin-Madison: Consortium for Policy Research in Education; Goldhaber, D. & Anthony, E. (2005). *Can teacher quality be effectively assessed?* Seattle, WA: University of Washington and the Urban Institute; Vandevoort, L. G., Amrein-Beardsley, A. & Berliner, D. C. (2004). National Board Certified teachers and their students' achievement. *Education Policy Analysis Archives, 12*(46), 117.

A related assessment will support states in evaluating and supporting teacher development further along the teaching career continuum, at the point at which a professional license is issued, typically 3 to 5 years into the career. Success at this juncture might be associated with additional compensation in a state or district with a career ladder program.

These two assessments could form the first two steps in a continuum of development and recognition, with a third step represented by an advanced certification, such as the National Board for Professional Teaching Standards or a state-specific assessment. These more advanced measures might be part of a process used to identify teachers for additional compensation and for roles as mentors, lead teachers, or demonstration teachers.



The Assessments

The project involves, first, building on the PACT assessment as a starting point for continued development to create a nationally available instrument for evaluating beginning teachers, as the first step toward a series of performance assessments that can support evaluation across the continuum of teachers' careers. The PACT is a direct descendent of INTASC's beginning teacher assessment, used for many years as the basis for granting a professional license, and validated as a strong predictor of teachers' effectiveness.

The assessment system for the beginning teacher performance assessment consists of two components: 1) a standards-based, subject-specific assessment of a unit of teaching and learning, called the Teaching Event, and 2) Embedded Signature Assessments (ESAs) that capture additional aspects of teachers' preparation and may vary across programs. The ESAs are

assessments that evaluate critical teaching goals, for example, child case studies, curriculum units, analyses of student work, and observations of student teaching.

The PACT Teaching Event comprehensively documents teaching and learning in a 3-5 day learning segment for one class of students. Teaching Events are subject-specific, with separate protocols for elementary and secondary credential areas. In a highly structured process, candidates offer evidence of their practice and its outcomes, based on lesson plans (with adaptations for English language learners and special education students), teacher assignments, daily reflections on classroom events and further adaptations of lessons to student responses, video clips of instruction with associated commentary, evidence and analysis of student learning, and reflective commentaries which explain the professional judgments underlying the teaching and learning artifacts.

This evidence is assembled in response to very specific instructions to provide data about key aspects of instruction linked to standards of student learning and standards of teaching. It is scored by trained raters whose ratings are further moderated and audited to produce reliable and valid evaluations of teachers' performance.

Since 2002, the PACT has been through seven years of development and use by more than 32 teacher education programs in California, including both traditional pre-service teacher education programs and alternative certification programs offered by school districts and a charter management organization. Programs have used the data generated by PACT to make program adjustments that have resulted in improved preparation and candidate performance. Based on extensive reliability and validity studies, the California Commission on Teacher Credentialing has approved the PACT assessment for licensing.

Interestingly, unlike traditional paper and pencil tests for teachers, studies of the PACT's outcomes have discovered no racial disparities in outcomes on this performance assessment. This may be in part because this assessment offers a more authentic evaluation of what beginning teachers can actually do in the classroom, not only how they perform on traditional standardized tests.

The second stage of the project, beginning in year 2, will be to build upon the initial licensing assessment to develop a nationally available tool for issuing a professional license. The format of this assessment will be similar – it will include evidence of teachers' practices on content-specific teaching tasks of planning, instruction, assessment, and reflection. It will, however, focus even more intently on a collection of evidence regarding teachers' contributions to student learning, and will allow the examination of evidence about practice and learning a longer period of time.

Goals of the Teacher Performance Assessment Project

The primary goal of this initiative is to design and field test the first nationally available Teacher Performance Assessment that will:

- Develop two prototype performance assessments that can be a key part of a system of state assessments that begin with educator preparation and continue to support evaluation for in-service educators throughout their careers;

- Allow school districts to analyze teachers' ability to teach core standards and support and advance student achievement;

- Contribute to the development of a more coherent national policy environment for teacher licensure, recruitment and in-service evaluation, and to a more effective national agenda for improvement of teacher quality.

The Teacher Performance Assessment will create a body of evidence about teaching competence, providing a vehicle for systematically examining the assessment data to improve both traditional and alternative teacher preparation programs, support induction and professional development for practicing teachers, and inform decisions about entry, tenure, and career development.

Current Status and Future Outcomes of the Project

Significant progress has been achieved in initiating the Teacher Performance Assessment initiative:

- Teams have been formed for participating states, including representatives from state education agencies (SEAs) and over 40 teacher preparation institutions.

- A field-based review of the PACT assessment methodology, upon which this initiative is based, has been conducted.

- Initial policy context analyses have been completed for participating states;

- A design team of leading measurement experts, practitioners, and researchers has been convened to inform the development of the Teacher Performance Assessment, which will be finalized and ready for testing in early 2010.

At the conclusion of the project, the proposed work will yield:

- Reliable and valid Teacher Performance Assessments which can be used to improve the consistency and quality of data on teacher effectiveness and anchor a continuum of performance assessments throughout the teaching career;

- An evidence-based methodology for making systematic decisions about recruitment, employment, professional development and career development.

- A technology platform that can be used to support the sharing of rich information about teacher performance, as well as scorer training and calibration;

- An outcome database which can be used by school districts to manage, analyze, and report data about teacher outcomes, and to track performance across the continuum of teachers' careers;

- Information that states can use to inform teacher quality initiatives, issue initial teacher licenses, make accreditation decisions about programs, and plan teacher induction and in-service development;

- An empirical foundation for developing a more coherent national agenda for teacher quality assessment.

Development of a system of nationally available teacher performance assessments will allow states, school districts and preparation programs to share a common framework for defining and measuring a set of core teaching skills that form a valid and robust vision of teacher competence. As states reference data generated from this tool to inform teacher licensure, recruitment and induction, they will establish a national standard for relevant and rigorous practice that advances student learning. In particular, the project can support efforts to evaluate and, ultimately, tighten the connection between teacher performance and student outcomes with valid and reliable data that can also be used to guide pre-service and in-service training.

Appendix A2-2

Illinois Race to the Top Measurement Plan:

Description and Critical Components

This document outlines key features of Illinois' Measurement Plan as described in Section (A)(2) of the application.

I. Illinois' Outcomes-Based Measurement Objectives

Outcomes-based measurement is an approach to traditional measurement and evaluation activities that is primarily focused on learning "how well" a particular set of interventions are working and collecting, analyzing and reporting data on a frequent enough basis in order to make data-informed decisions. While the Illinois plan includes and requires Participating LEA process indicators in order to understand what activities and structural changes Participating LEAs and the State have accomplished, the outcomes lens allows all stakeholders to focus their performance lens tightly on student, teacher, principal and school outcomes. Within the Measurement Plan, the term outcome means: *a desired change in status, condition or behavior that results from particular set of programs or activities.*

Illinois' objectives for the incorporation of outcomes-based measurement include:

- **Build a State Measurement System and Culture:** The Measurement Plan will seek to ingrain an outcomes-based performance measurement culture into ISBE, its key partners, and Participating LEAs. While typical performance measurement in education describes 'what did happen', the Measurement Plan will focus, on a frequent and consistent basis, on how well the plan's interventions are working.
- **A State Measurement System that Persists:** The Measurement Plan and related systems are intended to persist beyond the grant period. The overall increase in data appreciation and application across Participating LEAs and the State will have a spillover effect statewide.
- **The State Measurement System and Public Engagement:** The Measurement Plan will support stakeholder engagement through the sharing of valuable data with the public and other interested parties. For the State Required and Recommended indicators, the Measurement Plan focuses on those data that will inform practice and policy and that can be aggregated and shared with the public in meaningful and powerful ways.
- **The State Measurement System and Continuous Learning:** An outcomes-based performance measurement approach, unlike traditional evaluation methods, allows the State and LEAs to adeptly respond to both process and outcomes data as they are occurring rather than well after the fact. In addition to the Performance Measures required by the U.S. Department of Education, the State Required and Recommended Indicators are built with a lens of helping LEAs and the State understand how best to accomplish the Key Goals of the State's application.

II. Components of the Illinois Outcomes-Based Measurement Plan

The Measurement Plan will clearly identify the overall outcomes framework, incorporate the Performance Measures included throughout the Illinois RTTT application, and include indicators to help determine that meaningful progress is being made on process and outcomes. The Outcomes Framework set forth on Attachment A to this Appendix was used as the basis for the performance measures identified in this application. The Outcomes Framework articulates (a) the key outcomes that Illinois will accomplish with Race to the Top support as the result of State and Participating LEA action in accordance with this plan, (b) how these key outcomes will advance teacher and principal effectiveness, and (c) how key outcomes and increased teacher and principal effectiveness ultimately translate into student achievement, including high levels of student growth and student readiness at key student transition points in the P-20 spectrum. In essence, the Outcomes framework highlights the overarching theory of change in this plan.

The Measurement Plan will include outcome indicators that flow from the Outcomes Framework and that are tied to the key objectives of this plan, including:

- % of students meeting key "readiness" benchmarks including:
  - Kindergarten readiness based on a statewide kindergarten readiness assessment
  - High school readiness based on 8th grade EXPLORE benchmarks aligned to college readiness indicators
  - College and career readiness based on ACT College Readiness Benchmarks
  - Preparation for non-remedial coursework upon entering postsecondary

- % of students demonstrating:
  - high rates of growth (e.g., one and one-half grade levels in academic year)
  - acceptable rates of growth (e.g., at least one level in an academic year)

- % of teachers and principals rated in the highest two categories in summative evaluations, based on the four practice performance levels defined in this plan

The Measurement Plan will also include process indicators to measure whether key policy, structures and systems are in place to support progress on these outcomes, as shown on the bottom tier of the Outcomes Framework and consistent with the MOU. As described in Section (D)(5), Goal III, required indicators will include measures to assess the extent to which teacher and principal professional development resources are targeted and continuously improved..

The outcome and process indicators will track both State and Participating LEA performance, as follows:

- Tier 1 State Level – Indicators that represent overall State performance on key outcomes. These indicators will be reported through State and/or Participating LEA data systems.

- Tier 2 Participating LEA Level – Indicators that represent Participating LEA progress on putting the capacities, policies, and structures in place to achieve critical student, teacher, principal and district outcomes.
- The Tier 1 and Tier 2 indicators will be further divided into Required Indicators (data that Participating LEAs will be required to define, source, collect, and report) and Recommended Indicators (data that Participating LEAs may choose to report, and which provide additional means to measure success). As described in the proposed timeline for implementation set forth in the table below, ISBE will convene focus groups with representatives of Participating LEAs and other stakeholders to define both Required and Recommended Indicators for implementation of this plan. For example, Attachment B to this Appendix includes an initial set of Recommended Indicators to supplement the Performance Measures for Section (B)(3) of the Plan, Supporting the Transition to Enhanced Standards and High Quality Assessments. It is expected that over time, more Participating LEAs will adopt the Recommended Indicators as they master the collection and reporting of Required Indicators.

The process of implementing the Measurement Plan will include:

- Participating LEA Capacity Building – Early in the grant period, the Measurement Plan will focus on building LEA capacity to collect, analyze and report performance data. Integrated within the Statewide System of Support (SSOS) and aligned with the Quality Assurance Review performed by AdvanceED (see Section (A)(2) of the plan), Participating LEA Capacity Building will address how best to collect, analyze and report data not only for the grant and grant period, but for future public engagement and strategic decision making.
- State Capacity Building – Capacity building efforts will also focus on the State Board of Education's leadership and data teams to build their comfort with applying performance data to their work and to ensure that the data collected through the grant period is valuable and useful to decision making throughout the grant period and beyond. Similar to LEA Capacity Building, State Capacity Building will focus on training those individuals that are closest to the data and closest to the decisions that come from the data.
- Metrics Definition and Sourcing – As noted throughout the State's proposal, there are a variety of State Required and Recommended indicators the State is proposing in addition to those required by the U.S. Department of Education. A key step in this process is building consistent and replicable definitions for performance measures. Due to the local nature of much of the required data collection, the SSOS will work with Participating LEAs to accurately define the performance measures to increase the likelihood of accurate and meaningful performance data.
- Confirm Benchmarks –Participating LEAs will need to establish benchmarks for Required Indicators and have a clear process for developing baselines and benchmarks for Recommended Indicators as well.
- Performance Analysis Specifications – With the variety of data the State is proposing to collect, analyze and report, it is important to prioritize what types of analysis are important to a variety of stakeholders. Beyond the full set of performance measures included in this

application, the State recognizes that analysis of particular key populations, schools and LEAs will be most important to achieving the State's objectives. Priority will be given to the Super LEAs and other Participating LEAs with Illinois Priority Schools.

- State Level Reporting, Communications and Dissemination Plan – The State is committed to sharing results of Race to the Top funded initiatives with broad groups of stakeholders including the general public. Specifically, the State will develop a Race to the Top scorecard as well as produce meaningful reporting back to Participating LEAs and schools that summarize their performance on key process and outcome indicators throughout the course of the grant period. The plan is for scorecards to not only report current performance on key indicators, but also demonstrate Participating LEA and school growth and state growth on key indicators related to narrowing the achievement gap, equitable distribution of highly-effective teachers and school leaders, and overall improvement in state educational outcomes across all of the plan's key goals.

III. Implementation of Illinois Outcomes-Based Measurement Plan: SY 2010-11 - 2013-14

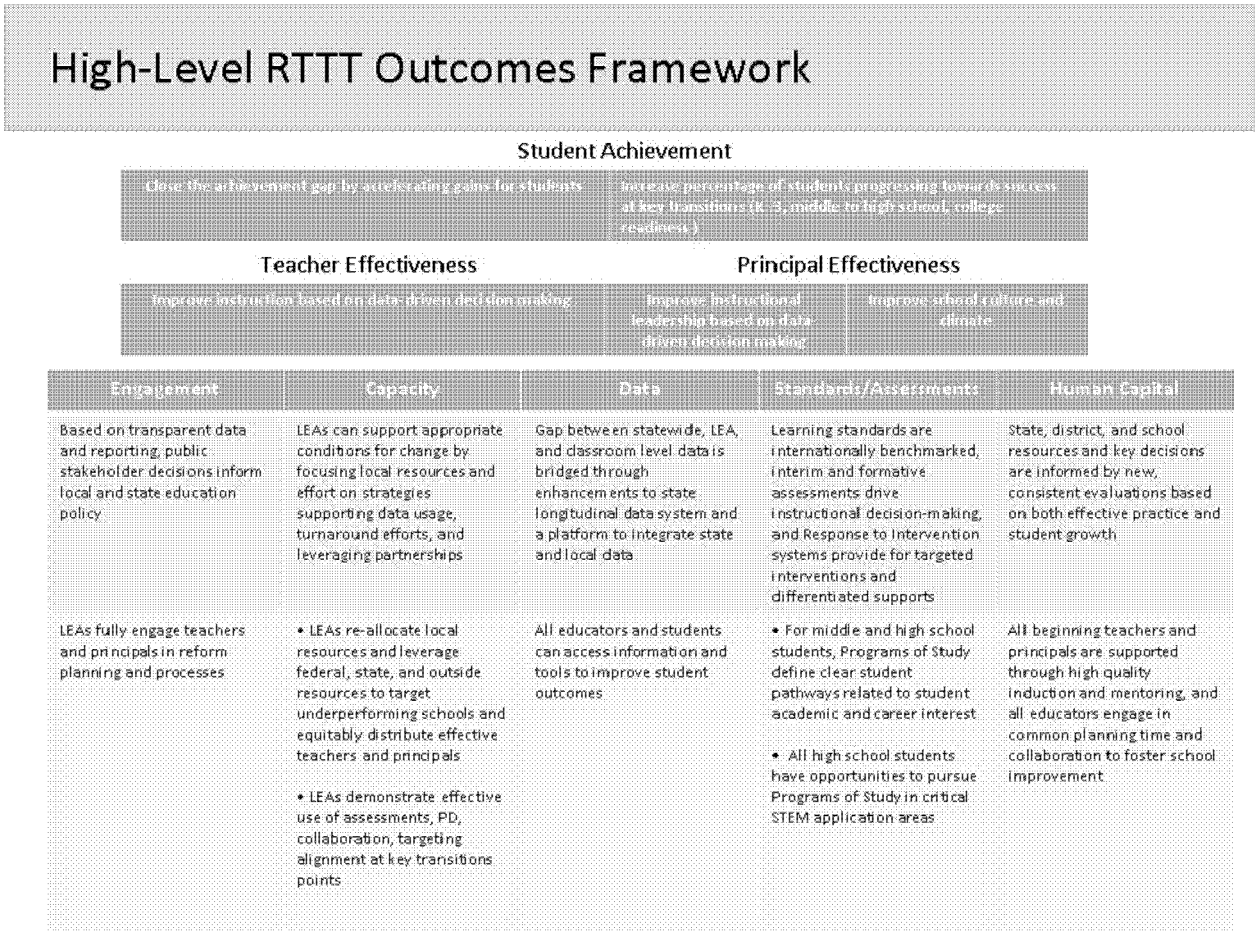
The table below outlines the overall Measurement Plan, including planned major activities and their intended outcomes, consistent with the State's recommended activities as part of this application. Following is a tentative timeline for implementation of an outcomes-based measurement plan that commences in October 2010.

	Illinois Measurement Plan: Proposed Timeline	
Phase	**Key Processes and Deliverables**	**Proposed Timeframe**
Define Success	• Kick off meeting with ISBE leadership and staff • Project planning	October 2010
	• Recommend internal and external stakeholders for interviews and focus groups • Complete internal and external stakeholder interviews and strategy review • Identify and coordinate Participating LEA stakeholder focus groups to complement stakeholder interviews • Analyze stakeholder interviews, research, focus group findings, and strategy review to develop outcomes • Through the SSOS, provide professional development regarding outcomes-based performance measurement • Develop Participating LEA outcomes-based measurement plan including reporting and measurement priorities consistent with federal required Performance Measures, and State Required and Recommended Indicators	November – December 2010

	Illinois Measurement Plan: Proposed Timeline	
Phase	**Key Processes and Deliverables**	**Proposed Timeframe**
Align Strategies	• Review existing Participating LEA strategies and planned refinements to ensure local approach is designed to accomplish required processes and drive outcomes for LEA, State and federal requirements • Complete strategy alignment discussion with Participating LEA stakeholder focus groups and develop measurement plan consistent with existing and planned capacity	January 2011
Measure Results – Design Data Collection Process	• Develop roadmap for data collection, reporting and analysis that is consistent with existing and planned ISBE and Participating LEA capabilities and other reporting requirements • Define, source and verify all federal Required Performance Measures, State Required Indicators and State Recommended Indicators with Participating LEAs • Design performance reports (scorecards) for all identified stakeholders for Participating LEA review and adoption; work with Participating LEA focus group through the process of report specification	February 2011- March 2011
Measure Results – Implement Data Collection	• Coordinate data collection process across ISBE and Participating LEA data sources • Verify availability and quality of data based on defined federal Required Performance Measures, State Required Indicators and State Recommended Indicators • Collect and analyze data based on federal, State and LEA specifications	April 2011 – June 2011
Measure Results - Report and Analyze Results	• Coordinate regular data review sessions with Participating LEA focus groups to collectively analyze and learn from results • Benchmark performance across Participating LEAs to identify best practices and areas of needed professional development or structure intervention	July 2011 – Ongoing

Appendix A2-2
Attachment A: Outcomes Framework

The following graphic illustrates the outcomes framework upon which the Illinois Measurement Plan is based.



The following table identifies preliminary outcome indicators related to Criterion (B)(3) of the State's Race to the Top application. Indicators tracked as part of the Measurement Plan, including the indicators listed in this Attachment A, flow from the Outcomes Framework and are tied to the key objectives of the State's Race to the Top plan.

B. Standards and Assessments (Tier I State-Level)				
Section	**Area of Commitment**	**Associated Key Goal**	**Required Indicators**	**Recommended Indicators**
(B3) Supporting the Transition to Enhanced Standards and High-Quality Assessments	A. Standards-Aligned Instructional Systems	Close the achievement gap by accelerating gains for students	% of students in Participating LEAs meeting or exceeding PLAN/Explore/ISAT benchmarks in reading/math/science	**NA**
		Close the achievement gap by accelerating gains for students	% of students in Participating LEAs demonstrating readiness on Kindergarten Readiness assessment (disaggregated by subgroup)	**NA**
			% of students in Participating LEAs demonstrating high school readiness in 8th Grade EXPLORE Assessment, based on benchmarks aligned to college-readiness indicators (disaggregated by subgroup)	NA
		Close the achievement gap by accelerating gains for students	% of students in Participating LEAs meeting or exceeding ACT college readiness benchmarks (disaggregated by subgroup)	NA
		Close the achievement gap by accelerating gains for students	**NA**	% of Participating LEAs meeting or exceeding graduation rate benchmarks (to be set by State/Participating LEAs)
		Close the achievement gap by accelerating gains for students	**NA**	% of Participating LEAs meeting or exceeding attendance benchmarks (to be set by State/Participating LEAs)
		Close the achievement gap by accelerating gains for students	**NA**	% of Participating LEAs reporting adoption of new common core standards Fall of SY10

B. Standards and Assessments (Tier I State-Level)				
Section	**Area of Commitment**	**Associated Key Goal**	**Required Indicators**	**Recommended Indicators**
		Close the achievement gap by accelerating gains for students	% of students in Participating LEAs taking AP coursework	**NA**
		Close the achievement gap by accelerating gains for students	% of students in Participating LEAs taking dual-credit coursework	**NA**
		Close the achievement gap by accelerating gains for students	% of students in Participating LEAs taking AP exams (disaggregated by # and type of exam)	**NA**
		Close the achievement gap by accelerating gains for students	% of students in Participating LEAs scoring 3 or better on AP exams (disaggregated by # and type of exam)	**NA**
		Close the achievement gap by accelerating gains for students	% of students in Participating LEAs not required to complete remedial coursework in postsecondary	**NA**
(B3) Supporting the Transition to Enhanced Standards and High-Quality Assessments	A. Standards-Aligned Instructional Systems			% of Participating LEAs with a student-growth metric in place to track progress year to year
	C. Developing and Scaling STEM-Related Programs of Study	Increase percentage of students progressing towards success at key transitions (preK -3, middle to high school, high school to postsecondary and careers)	**NA**	% of teachers credentialed in STEM coursework teaching STEM courses
		Increase percentage of students progressing towards success at key transitions (preK -3, middle to high school, high school to postsecondary and careers)	**NA**	% of Participating LEAs with identified community partners (and type) to support Program of Study and STEM opportunities (gr. 9-12 LEAs only)
		Increase percentage of students progressing towards success at key transitions (preK -3, middle to high school, high school to postsecondary and careers)	**NA**	% of Participating LEAs with 2 or more Programs of Study in critical STEM application areas (gr. 9-12 LEAs only)

B. Standards and Assessments (Tier I State-Level)				
Section	**Area of Commitment**	**Associated Key Goal**	**Required Indicators**	**Recommended Indicators**
	D. WorkKeys/National Career Readiness Certificate Program	Close the achievement gap by accelerating gains for students	**NA**	% of students who say they are highly engaged in school activities
		Close the achievement gap by accelerating gains for students	**NA**	# of Participating LEAs implementing National Career Readiness Certificate program

Appendix A2-3

Budget Summary and Project-Level Budgets

Budget Part I: Summary Budget Table
(Evidence for selection criterion (A)(2)(i)(d))

Budget Categories	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Total
1. Personnel (ISBE)*	85,000	87,550	90,177	0	262,727
Personnel (Contractual positions)*	5,417,511	7,411,205	7,967,127	7,923,627	28,719,470
2. Fringe Benefits (applies to ISBE and contractual positions)	1,361,896.70	1,999,965.70	2,003,671.70	1,970,140	7,335,674.10
3. Travel	604,212	607,104	404,704	398,650	2,014,670
4. Equipment	339,500	312,500	307,500	307,500	1,267,000
5. Supplies	88,424.25	88,124.25	88,124.25	88,124.25	352,797
6. Contractual	41,595,570	38,564,477	30,336,769.91	21,961,000	132,457,816.91
7. Training Stipends	120,000	102,000	114,000	0	336,000
8. Other	13,721,073.25	20,869,551.25	5,996,826.25	1,378,872.25	41,966,323
9. Total Direct Costs (lines 1-8)	63,333,187.20	70,042,477.20	47,308,900.11	34,027,913.50	214,712,478.01
10. Indirect Costs*	344,519.49	345,298.49	472,357.51	269,544.50	1,431,719.99
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	9,120,000	14,620,000	9,560,000	5,620,000	38,920,000
13. Total Costs (lines 9-12)	72,797,706.69	85,007,775.69	57,341,257.62	39,917,458	255,064,198
14. Funding Subgranted to Participating LEAs (50% of Total Grant)	63,766,049.50	89,272,469.30	63,766,049.50	38,259,629.70	255,064,198
15. Total Budget (lines 13-14)	136,563,756.19	174,280,244.99	121,107,307.12	78,177,087.70	510,128,396.00

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

***Personnel expenses are subdivided between ISBE personnel and contractual personnel. See Project-level Budget Summaries for further detail.**

Budget Part I: Budget Summary Narrative

The State's budget for the projects set forth in its Race to the Top Application is divided into five cost categories. Category I costs will be paid out of the 50% LEA allocation of Race to the Top funds. Costs in Categories II through V will be paid out of the 50% State allocation of Race to the Top funds.

- **Category I (LEA Allocation):** ISBE will distribute the Category I Race to the Top funds to Participating LEAs by formula, as required under ARRA and directed by the U.S. Department of Education. ISBE will monitor and periodically audit to ensure that any funding provided to Participating LEAs will only be spent on Race to the Top Plan programs and projects.
- **Category II (SEA Allocation):** Category II costs include supplemental funding to Participating LEAs for various targeted initiatives.
- **Category III (SEA Allocation):** Category III costs include programs involving direct payments to teachers or teacher candidates for targeted programs to increase the number of effective teachers in hard-to-staff subjects or specialty areas.
- **Category IV (SEA Allocation):** Category IV costs include funding support for non-LEA partners through a competitive grant process or formula funding.
- **Category V (SEA Allocation):** Category V costs include State foundational systems and funding for ISBE contractual services in support of the Plan.

Each funding category contains certain Race to the Top plan projects and programs. For an outline of the projects and programs in each funding category, see Budget Overview, Projects Summary within this Appendix. While funding categories II-IV involve direct payments to LEAs, teachers/teacher candidates, LEA partners, foundational systems and ISBE contractors, these funding categories will include, as further outlined in the project level budgets and budget narratives, certain state administrative costs.

In addition, Category II contains a specific set aside for Super LEAs for certain eligible costs such as performance evaluation implementation, E3 program activities, integration with the Learning and Performance Management System and turnaround support. Super LEAs are provided a specific line item due to the commitments made by these LEAs and required of these LEAs under the MOU. Super LEAs, under the MOU and as further described in Section A(1) of the Application, have committed to 1) implementing new teacher and principal evaluation systems by no later than the start of the 2011-12 school year, 2) providing staffing autonomy to Illinois Priority Schools within the district, and 3) the agreement of the district superintendent and teachers' union leader to participate in the comprehensive State intervention framework.

The Super LEA line item will be proportionately distributed among the Super LEAs based upon the number of priority schools in each Super LEA, as the programs to be funded under this budget line item are primarily school-based projects (although they must be integrated with district-level activities). In order to receive Category II funds, the Super LEA must include, in its final plan, necessary collective bargaining waivers agreed to between the LEA and the local teachers' union to carry out the commitments. If the LEA is not able to obtain these waivers, the

LEA will not be provided funding under Category II and ISBE will retain discretion to apply this funding to other programs included in its Race to the Top plan.

The State's theory of funding allocation, as is demonstrated throughout the plan level and individual project level budget summaries, is as follows:

- 2010-2011: Planning and establishment of Race to the Top plan projects, programs and activities, including development of the state infrastructure needed to support these projects, programs and activities.

- 2011-2012: Intensive implementation of Race to the Top plan projects, programs and activities. This largest allocation of Race to the Top funds will be allocated during this period.

- 2012-2013: Continuation of Race to the Top plan projects, programs and activities implemented during the 2010-2011 and 2011-2012 school year. These projects, programs, and activities will begin to see a deceleration in the amount of Race to the Top funds flowing to the projects. The programs and activities must begin to focus on self-sustainment after the 2014 school year using other federal, State, and local sources.

- 2013-2014: Projects, programs and activities funded through Race to the Top will transition to non-ARRA funding sources and will implement self-sustaining strategies.

In addition, the State will leverage other federal, State and local funds to further support the Race to the Top education reform plans. Examples of how the State plans to leverage the Race to the Top Funds from its application are:

- State Fiscal Stabilization Phase II Fund Grant (SFSF): The State submitted its application for Phase II State Fiscal Stabilization Funding on December 14, 2009. The State's plan for SFSF Phase II funding describes a number of activities the State will undertake to (a) achieve equity in teacher distribution, (b) improve collection and use of data, (c) implement high quality standards and assessments, and (d) support struggling schools. These plans provide a foundation for the activities proposed to be carried out using RTTT funding.

- Perkins IV Funding (federal): In the preceding years, Illinois has used the implementation of Perkins IV as a means to advance the integration of real world academic and technical content, alignment of secondary to postsecondary expectations, initiate the first programs of study, and develop a more fruitful collaboration between secondary and post-secondary at both the state and local level. Development of Programs of Study referenced in this application will work closely with content and program experts from Career and Technical Education to align, when appropriate, the Programs of Study to federal and state CTE program approval requirements, including the importance of academic and technical integration. Additionally, the development effort of Programs of Study in Illinois are being expanded to include academic programs of study, again integrating real world

content, as well the emerging CTE programs of study. *(See Application Section B(3))*

- Statewide Longitudinal Data System Grant (SLDS): The State has also applied for the SLDS Grant awarded by the U.S. Department of Education, Institute of Education Sciences. As set forth in the Participating LEA MOU, all Participating LEAs must fully cooperate with ISBE on data collections necessary for the longitudinal data system, including efforts by ISBE to ensure data quality. *(See Application Section C(2))*

- Supportive Technology: *(See Application Section B(3))*
  - **Enhancing Education Through Technology (EETT)**: Illinois is using $10 million in ARRA Title II, Part D, Enhancing Education Through Technology (EETT) Competitive Grant funds and $10 million in State capital funds to build the technology infrastructure in high-need LEAs necessary to implement standards-aligned instructional systems. Grants ranging from $450,000 to $900,000 are available to improve student academic achievement through the integration of technology in schools. Specifically, ISBE has targeted these funds for applicants to acquire low-cost laptops/ultra-portable netbook computers that are integrated with peripheral technology (e.g, whiteboards, student response systems) into fully integrated state-of-the-art learning environments consistent with the National Educational Technology Standards (NETS).
  - **Illinois Century Network (ICN) Transition to Fiber Network**: In addition, Illinois is building the telecommunications backbone necessary to ensure low-cost, high-speed access to on-line resources by all Illinois school districts. Presently, ICN is the largest broadband network in the nation, serving nearly 8,000 K-12 schools, local governments, and nonprofit entities throughout all 102 counties in Illinois. While the ICN is currently built on a model of leasing point-to-point connections between 14 Point of Presence (POP) sites, the ICN is transitioning to a State-owned, 1700 mile fiber network that will provide sufficient bandwidth for all public schools to access on-line instructional resources. The State of Illinois has allocated $26 million in State capital funding for the project, and is requesting $104 million in ARRA funding.

- Section 1003(g) School Improvement Grant Funds. Section 1003(g) School Improvement Grant Funds will serve as the primary source of funding for LEAs to undertake interventions in Illinois Priority Schools (subject to federal eligibility and priorities). The State is also leveraging its Section 1003(g) School Improvement Grant funds to support the priority of performance evaluation redesign. Under the Performance Evaluation Reform Act (see *Application Section (D)(2)*), any LEA receiving a School Improvement Grant award (regardless of whether or not they are a Participating LEA) must implement a redesigned performance evaluation system in accordance with the timeline set forth in that grant. ISBE intends to require that redesigned systems be implemented by the 2012-13 school year for any LEA

receiving a School Improvement Grant as part of the State of Illinois' SIG ARRA allocation (subject to the allowance made in PERA for a phase-in of the system in Chicago Public Schools).

- Illinois Mathematics and Science Partnership Program (IMSP): The State will enhance and expand its existing IMSP to increase the math and science expertise of teachers within Participating LEAs. A significant percentage of the Participating LEAs also qualify as high-need LEAs under the requirements of the IMSP. By leveraging Race to the Top funding with existing IMSP funding, Illinois will be able to provide additional openings for teachers wishing to participate in the training provided by IMSP. With the support of Race to the Top, Illinois can increase the number of participating teachers from the current 775 to 1,600 each year. *(See Application Section D(3)).*

- Teacher and Principal Induction and Mentoring Programs: The State currently allocates funding for high quality teacher and principal induction and mentoring programs. With Race to the Top funding, the State can continue to build upon and expand its current induction and mentoring programs in order to reach a significantly greater number of teachers and principals. (*See Application Section D(5)*).

- State Funding for Explore and Plan: In addition to incorporating the ACT college entrance examination into the PSAE, since the 2007-08 school year, the State has funded the cost for school districts to implement the EXPLORE test in 8th or 9th grade and the PLAN test in 10th grade. Collectively, EXPLORE, PLAN and ACT constitute the Educational Planning and Assessment System ("EPAS"). The EPAS system assessments are scored on a common scale, and can be used to identify a lack of alignment in instruction resulting in student achievement falling short of college- and work-ready expectations. Race to the Top Funds will leverage the expansion and implementation of the EPAS system as a tool to address middle and high school alignment. *(See Application Section D(5)).*

- National Center for Supercomputing Application (NCSA) at the University of Illinois: As described in its Letter of Support for this application, the NCSA has offered to provide at cost a world-renowned team of computer scientists and educators to acquire, deploy, and operate a cloud computing environment for the LPMS, as well as develop and retool software applications needed to effectively use the data. *(See Application Section B(3)).*

- External Foundation Funding: To support the State's planning and application process, a coalition of 18 national, state, and community-based foundations formed "The Race to the Top Initiative", a short-term collaborative fund of The Chicago Community Foundation, to demonstrate their financial support to the Illinois State Board of Education (ISBE) for this important endeavor. The foundations remain committed to continued conversations with the State for the long-term improvement of education in Illinois, and ISBE will seek to build on this collaboration to more fully engage the foundation community in its policies and programs. To support this

plan's central focus on performance evaluations, the Joyce Foundation has invited a grant application request for an April 2010 funding decision from The New Teacher Project and The Consortium for Educational Change (CEC) to support a cadre of Super LEAs to develop, implement, and effectively use redesigned evaluation systems meeting the requirements of this plan.

BUDGET OVERVIEW, PROJECTS SUMMARY

CATEGORY I COSTS: LEA ALLOCATION					
	10-11 School Year	**11-12 School Year**	**12-13 School Year**	**13-14 School Year**	**Total**
Participating LEAs receive 50% of RTTT award					
Category I Subtotal					**255,064,198**

CATEGORY II COSTS: SUPPLEMENTAL FUNDING FOR PARTICIPATING LEAS					
Project (see Project-Level Budget Narrative for details)	**10-11 School Year**	**11-12 School Year**	**12-13 School Year**	**13-14 School Year**	**Total**
National Career Readiness Certificate Program and Statewide Contract and Supports for Assessments for Learning (*Plan Section (B)(3)*)	650,000	750,000	750,000	850,000	3,000,000
Kindergarten Readiness Assessment to Promote PreK – 3 Instructional Alignment (*Plan Section (B)(3)*)	1,533,800	4,106,633	4,106,633	4,106,634	13,853,700
E3 Program (50% Super LEAs; 50% non-Super LEAs) (*Plan Section (D)(3)*)	5,000,000	7,000,000	5,000,000	3,000,000	20,000,000
Expansion of Principal Mentoring (*Plan Section (D)(5)*)	500,000	500,000	500,000	500,000	2,000,000
National Board Certification: Common Planning and Collaboration (*Plan Section (D)(5)*)	7,712,400	6,530,800	5,827,120	5,827,120	24,993,280
Super LEA Supplemental Funding: Eligible costs include: - Performance evaluation implementation - E3 Program activities - Integration with Learning and Performance Management System - Turnaround support	4,000,000	5,500,000	4,000,000	2,500,000	16,000,000

Category II Subtotal					**$79,846,980**
CATEGORY III COSTS: DIRECT TEACHER SUPPORTS					
Project (see Project-Level Budget Narrative for details)	**10-11 School Year**	**11-12 School Year**	**12-13 School Year**	**13-14 School Year**	**Total**
Special Education Tuition Waiver *(Plan Section (D)(3))*	480,000	480,000	480,000	480,000	1,920,000
Bilingual Teachers in Training Project *(Plan Section (D)(3))*	247,399	229,380	245,153	0	721, 932
Category III Subtotal					**$2,641,932**

CATEGORY IV COSTS: GRANT FUNDING FOR NON-LEA PARTNERS					
Project (see Project-Level Budget Narrative for details)	**10-11 School Year**	**11-12 School Year**	**12-13 School Year**	**13-14 School Year**	**Total**
STEM Learning Exchanges *(Plan Section (B)(3))*	16,450,000	10,450,000	4,050,000	4,050,000	35,000,000
College and Career Readiness (Community Colleges) *(Plan Section (B)(3))*	1,333,333.69	1,333,332.69	1,333,333,62	0	4,000,000
Dropout Prevention & Reenrollment *(Plan Section (E)(2))*	8,000,000	17,000,000			25,000,000
Category IV Subtotal					**$64,000,000**

CATEGORY V COSTS: STATE PROJECT MANAGEMENT AND CONTRACTUAL					
State Monitoring, Data Collection, Measurement, and Reporting (*Plan Section (D)(2)*) (*Plan Section (D)(3)*) (*Plan Section (E)(2)*)	5,015,600	5,010,600	4,860,600	4,860,600	19,747,400
Illinois Collaborative for Education Policy Research (*Plan Section (B)(3)*)	704,387	715,310	537,571	542,732	2,500,000
Learning & Performance Mgmt System (*Plan Section (C)(3)*)	15,000,000	17,500,000	7,500,000	5,000,000	45,000,000
State Performance Evaluation Support Systems (*Plan Section (D)(2)*)	1,355,000	1,326,333	9,882,740	1,357,265	13,921,338
Teacher Performance Assessments Development of high quality performance assessments of teaching practice (*Plan Section (D)(2)*)	1,256,877	1,731,877	1,981,877	1,631,877	6,602,508
Illinois Math and Science Partnership Program Expansion (*Plan Section (D)(3)*)	1,925,000	2,275,000	1,575,000	0	5,775,000
Educator Preparation Advisory Groups (*Plan Section (D)(4)*)	134,700	134,700	134,700	134,700	538,800
Induction and Mentoring Technical Assistance and Accountability (*Plan Section (D)(5)*)	1,254,590	1,254,590	1,152,530	1,152,530	4,814,240
Illinois Partnership Zone Administration and Direct State Interventions (*Plan Section (D)(2)*)	1,000,000	1,876,000	3,400,000	3,400,000	9,676,000
Category V Sub-total					**$108,575,286**
TOTAL					**$255,064,198**
TOTAL RTTT BUDGET					**$510,128,396**

BUDGET PART II: PROJECT-LEVEL BUDGET TABLES AND NARRATIVES

Budget Part II: Project-Level Budget Table
Project Name: National Career Readiness Certificate Program and Statewide Contract and Supports for Assessments for Learning
Associated with Criteria: Evidence for selection criterion (B)(3)

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	0	0	0	0	0
2. Fringe Benefits	0	0	0	0	0
3. Travel	0	0	0	0	0
4. Equipment	0	0	0	0	0
5. Supplies	0	0	0	0	0
6. Contractual	650,000	750,000	750,000	850,000	3,000,000
7. Training Stipends	0	0	0	0	0
8. Other	0	0	0	0	0
9. Total Direct Costs (lines 1-8)	650,000	750,000	750,000	850,000	3,000,000
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	650,000	750,000	750,000	850,000	3,000,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
National Career Readiness Certificate Program and Statewide Contract and Supports for Assessments for Learning

The National Career Readiness Certificate Program and Statewide Contract and Supports for Assessments for Learning are described in Section B(3) of the Application. Both of these projects are contractual in nature.

1) Personnel: No personnel will be hired as employees of these projects. Current ISBE employees will be responsible for any administrative matters associated with these projects and any project activities undertaken by ISBE employees will not be funded through Race to the Top funds.

Personnel: The following requested personnel will all be hired as employees of the project.	% FTE	Base Salary	Total
No personnel will be hired as explained above.	0	0	0

2) Fringe Benefits: There will be no fringe benefits associated with these projects.

3) Travel: There will be no travel associated with this project.

4) Equipment: There will be no equipment related expenses for this project.

5) Supplies: There will be no supply expenses for this project.

6) Contractual:

- National Career Readiness Certificate Program: The State will directly contract with ACT for implementation of the Career Readiness Certificate Program. As part of this contract, ACT will integrate the WorkKeys Locating Information assessment within selected Participating LEAs PSAE testing. The WorkKeys Locating Information assessment is the assessment used by ACT in awarding National Career Readiness Certificates. As ACT is the sole distributor of the WorkKeys Locating Information assessment, the procurement procedures to not apply. This project is budgeted to provide the WorkKeys Locating Information assessment in 500 high schools throughout the grant period. This budget assumes an average high school of 1,000 students, with 250 students taking the WorkKeys Location Information assessment per year and 1,000 students taking the assessment in each selected high school over the course of the four year grant period. As a result, this budget has allocated $5,000 per school for implementation of this assessment and the awarding of a National Career Readiness Certificate. These numbers are based on the State's current contract with ACT for implementation of the WorkKeys Locating Information assessment in other LEAs. If the demand for the National Career Readiness Certificate project exceeds the current budget, the State may reallocate funds or supplement this project with other state funds.

- Statewide Contract and Supports for Assessments for Learning:
  - The State will procure a statewide contract with an outside entity to research and provide the best available pricing and a simplified procurement/contracting process for districts seeking to purchase commercially available Assessments for Learning, aligned to the Common Core State Standards, including end-of-course assessments for middle and high schools.
    Total Cost: **$480,000** ($180,000 in grant year 1 and $100,00 per year for grant years 2-4)
  - In addition, the State will form a working group team, consisting of technical experts and practitioners, to assist ISBE with defining minimum criteria for validity, reliability and usability of Assessments for Learning. This group will meet 4 times during the first grant year.
    Total Cost: $20,000, $5,000 per meeting (4 meeting of 20 participants, at $250 per person per meeting).
- The Illinois State Board of Education will be in compliance with the procedures for procurement under 34 CFR Parts 74.40 - 74.48 and Part 80.36.

7) Training Stipends: There are no training stipends associated with this project.

8) Other: There are no "other" costs associated with this project.

9) Total Direct Costs

Year 1	Year 2	Year 3	Year 4	Total
650,000	750,000	750,000	850,000	**$3,000,000**

10) Indirect Costs: There are no indirect costs associated with this project.

11) Funding for Involved LEAs: The State's Plan does not include "involved" LEAs.

12) Supplemental Funding for Participating LEAs: There will not be any supplemental funding for Participating LEAs for this project.

13) Total Costs: $3,000,000

	Line 9	**Line 10**	**Line 11**	**Totals**
Year 1	650,000	0	0	650,000
Year 2	750,000	0	0	750,000
Year 3	750,000	0	0	750,000
Year 4	850,000	0		850,000
				3,000,000

Budget Part II: Project-Level Budget Table Project Name: Kindergarten Readiness Assessment to Promote Pre-K -3 Instructional Alignment Associated with Criteria: Evidence for selection criterion (B)(3)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	1,145,000	1,145,000	1,145,000	1,145,000	4,580,000
2. Fringe Benefits	343,500	343,500	343,500	343,500	1,374,000
3. Travel	0	0	0	0	0
4. Equipment	18,000	0	0	0	18,000
5. Supplies	4,800	4,800	4,800	4,800	19,200
6. Contractual	22,500	1,680,000	1,680,000	1,680,000	5,062,500
7. Training Stipends	0	0	0	0	0
8. Other	0	933,333	933,333	933,334	2,800,000
9. Total Direct Costs (lines 1-8)	1,533,800	4,106,633	4,106,633	4,106,634	13,853,700
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	1,533,800	4,106,633	4,106,633	4,106,634	13,853,700

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Kindergarten Readiness Assessment to Promote Pre-K -3 Instructional Alignment

The Kindergarten Readiness Assessment to Promote Pre-K -3 Instructional Alignment project is described in Section (B)(3) of the Application, Goal II. The State will focus its efforts over the remainder of State Fiscal Year 2010 and during the first two years of the RTTT grant period on developing and implementing a kindergarten readiness measure to promote the alignment of PreK – 3 instruction and student supports. This project will be developed, managed and implemented by an outside contractor.

1) Personnel: all contractual

Personnel: All employees hired for this project will be hired by the contractor.	% FTE	Base Salary	Total
Project Director (1)-responsible for the overall leadership and management of the Kindergarten Readiness-P-3 Teacher Training Project.	100%	$100,000	$100,000
Kindergarten Readiness Manager (1)-responsible for management of Kindergarten Readiness Project. Reports to Project Director.	100%	$90,000	$90,000
P-3 Training Manager(1)-responsible for management of Teacher Training Project. Reports to Project Director.	100%	$90,000	$90,000
Research Assistants (4)-gather, analyze and report data from Kindergarten Readiness Assessment (KRA) Report to KRA manager.	100%	$60,000 (each)	$240,000
Teacher Trainers (4)-Implement Trainer of Trainers model for K – 3 teacher professional development.	100%	$60,000 (each)	$240,000
Kindergarten readiness trainers (4)- Implement training model for readiness assessment and teacher training.	100%	$55,000 (each)	$220,000
Administrative Support (3)-Provide administrative, editorial and communications support	100%	$55,000 (each)	$165,000
TOTAL COSTS YEAR 1			**$1,145,000**
TOTAL COST GRANT PERIOD (4 YEARS)			**$4,580,000**

2) Fringe Benefits: Fringe benefit are 30%, for a total one year budget of $343,500 and $1,374,000 for the entire grant period.

3) Travel: There are no travel expenses associated with this budget.

4) Equipment: Computers will be purchase for each staff member along with other necessary office equipment (desks, chairs, lamps, etc.) $1000 per staff member has been allocated toward equipment expenses.
Total Cost: $18,000

5) Supplies: Office supplies at $400 per month, $4800 per year.
Total Cost: $19,200

6) Contractual:

- Pilot Program (Year 1)**:** 1500 students at $15 per student, for a total of $22,500. The $22,500 will be used to pay for the license fee for the necessary assessments.
- Implementation of Kindergarten Readiness Assessment (Years 2-4): 112,000 students assessed in all Participating LEAs each year, at a cost of $15 per student, for a total cost of $5,040,000.
- The Illinois State Board of Education will be in compliance with the procedures for procurement under 34 CFR Parts 74.40 - 74.48 and Part 80.36.

Total Contractual Costs: $5,062,500

7) Training Stipends: There are no training stipends associated with this budget.

8) Other: Curriculum materials for a total of 28,000 teachers over 3 years for a total cost per year cost of $933,333 (rounded to nearest dollar).
Total Grant Cost: $2,800,000

9) Total Direct Costs:

Personnel	$4,580,000
Fringe	$1,374,000
Equipment	$18,000
Supplies	$19,200
Contractual	$5,062,500
Other (curriculum materials)	$2,800,000
Total Direct Costs:	**$13,853,700**

10) Indirect Costs: There are no indirect costs associated with this project.

11) Funding for Involved LEAs: The State Plan does not include involved LEAs.

12) Supplemental Funding for Participating LEAs: There is no supplemental funding for Participating LEAs.

13) Total Costs

	Line 9	**Line 10**	**Line 11**	**Totals**
Grant Period Year 1-4	$13,853,700	0	0	**$13,853,700**
Total		0	0	**$13,853,700**

Budget Part II: Project-Level Budget Table Project Name: Ensuring Effective Educators for All Schools Program ("E3 Program") Associated with Criteria: Evidence for selection criterion (D)(3)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	0	0	0	0	0
2. Fringe Benefits	0	0	0	0	0
3. Travel	0	0	0	0	0
4. Equipment	0	0	0	0	0
5. Supplies	0	0	0	0	0
6. Contractual	0	0	0	0	0
7. Training Stipends	0	0	0	0	0
8. Other	0	0	0	0	0
9. Total Direct Costs (lines 1-8)	0	0	0	0	0
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	5,000,000	7,000,000	5,000,000	3,000,000	20,000,000
13. Total Costs (lines 9-12)	5,000,000	7,000,000	5,000,000	3,000,000	20,000,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Ensuring Effective Educators for All Schools Program ("E3 Program")

12) Supplemental Funding for Participating LEAs

The E3 Program is described in Section (D)(3) of the Application, Goal II, Key Activity B. Funding for the E3 Program will be divided into two separate pools:

1. $10,000,000 of the E3 Program allocation will be dedicated exclusively to Super LEAs for a variety of staffing incentives for an Illinois Priority School consistent with the E3 Program criteria and requirements. However, ISBE may reduce the E3 program allocation dedicated exclusively to Super LEAs if all 12 Super LEAs do not retain that status in accordance with the requirements of Exhibit II of the Participating LEA MOU. Funding will be distributed on a per-school basis ($400,000 for school; 25 schools).

2. $10,000,000 of the E3 Program allocation will be available for Participating LEAs, other than Super LEAs, through a competitive grant program administered by ISBE in accordance with its standard grant administration procedures. Grant awards will range from $100,000 to $500,000 based on the quality of the proposed plan and how well it addresses the E3 Program criteria and requirements (as described in Section (D)(3) of this application). 28 additional Priority Schools in Participating LEAs will be served through the E3 Program through the competitive component (assuming an average allocation of approximately $350,000/school).

23 out of 25 Super LEA Priority Schools, and 83% of Priority Schools overall are high schools. Assuming an average high school population of 1,000 students, 46 high schools would be served, with a student population of approximately 46,000. 5 elementary/middle schools would be served. Assuming an average student population of 500 in elementary/middle schools; 2500 additional students would be served at the elementary/middle school level (Total student population of 48,500).

Total Costs: $20,000,000

Budget Part II: Project-Level Budget Table Project Name: Expansion of Principal Mentoring Associated with Criteria: Evidence for selection criterion (D)(5)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	72,500	72,500	72,500	72,500	290,000
2. Fringe Benefits	0	0	0	0	0
3. Travel	162,400	162,400	162,400	162,400	649,600
4. Equipment	0	0	0	0	0
5. Supplies	500	500	500	500	2,000
6. Contractual	264,600	264,600	264,600	264,600	1,058,400
7. Training Stipends	0	0	0	0	0
8. Other	0	0	0	0	0
9. Total Direct Costs (lines 1-8)	500,000	500,000	500,000	500,000	2,000,000
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	500,000	500,000	500,000	500,000	2,000,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Illinois New Principal Mentoring Program

The Illinois New Principal Mentoring Program is described in Section D(5) of the Application. Illinois School Code (105 ILCS 5/2-3.53a) established the Illinois New Principal Mentoring Program for every person working as a principal for the first time. The foundation of this program is an infrastructure that facilitates direct mentoring support to all new principals and their mentors. Building upon this infrastructure and its current resources, Illinois will implement a pilot training program to teach mentors and 300 principals in schools and districts that receive Race To The Top (RTTT) funding how to use the Illinois principal evaluation tool.

1) Personnel

- Illinois currently has a contract with the Illinois Principals Association for the management of the New Principal Mentoring Program. Working under this contractor are mentors, mentoring entities (approved local school districts and professional organizations within the network) that provide training and direct services in specific geographic areas of the state, field coordinators (delivering direct services to mentoring entities and mentors), a technology director, and support personnel. These resources will be used to support 300 individuals in RTTT schools and districts piloting the new principal evaluation tool.

- The proposed new program will require additional funding to the **contractor** to serve 300 principals in RTTT schools and districts. Additional costs include 1) supplies and materials, 2) travel, 3) stipends, 4) trainers, and 5) professional development.

Personnel: All personnel funding for this project are contractual. ISBE will expand its contract with the Illinois Principals Association (the "Contractor"). This expansion will require the Contractor to hire the following project employees.	**Days**	**Base Salary per day**	**Total**
Professional Development Director (1): will develop a high quality professional development experience called the Principal Evaluation Tool Training Package for delivery to mentors, and new principals, and also train the trainers (field coordinators). This individual must have extensive experience in developing and delivering professional development. The training experience will become a statewide program offering administrator credit through the Illinois Administrators' Academy.	40	$500	$20,000
Field Coordinators (5) will deliver the Principal Evaluation Tool Training Package directly to the mentoring entities, mentors, and new principals in schools and districts that specifically receive Race To The Top (RTTT) funding. These individuals are highly effective trainers who have experience as practitioners as well as proven ability to work collaboratively and effectively with school and community personnel.	25	$300	$37,500
Administrative Assistant (1) will make logistical arrangements for all	60	$250	$15,000

meetings, organize and distribute meeting materials, maintain documentation of all meetings, and provide support for the development and delivery of the Principal Evaluation Tool Training.	days		
TOTAL PERSONNEL COSTS			**$72,500**
*Daily salaries are based upon averages for similar positions in this geographical area.			

2) Fringe Benefits: There are no fringe benefits because these are contractual positions.

3) Travel

- Because the distances vary greatly within the state, the estimated per trip average cost is $150 plus per diem.
- Travel is always based on the most economical means and limits cost to current state guidelines.
- Travel is extremely important for the development and delivery of the Principal Evaluation Tool Training Package. Travel includes development of the training module, training professional trainers to deliver the program, and technical assistance to 300 principals in RTTT districts and schools.

Travel: Travel expenses include the average mile reimbursements of $150 each, in addition to an amount of per diem of $50.	**# Trips**	**$ per Trip**	**Total**
Professional Development Director: 3 trips to each of 6 geographical regions of the state for train-the-trainer workshops, plus 6 trips to the SEA for development of the program.	24 x 1 person	$200	$4,800
Field Coordinators (5): 1 trip to be trained as trainers to deliver the Principal Evaluation Tool Training Package. Overnight accommodations required for 2 consecutive day training adding $130 per trip.	1 x 5 persons	$320	$1,600
Field Coordinators (5): 1 trip to each of 6 geographical regions of the state to deliver the Principal Evaluation Tool Training Package.	6 x 5 persons	$200	$6,000
New Principals (300) from pilot programs in RTTT districts and schools will attend two one-day sessions of the Principal Evaluation Tool Training Package.	2 x 300 persons	$200	$120,000
Professional Development Committee (the SEA, Illinois Principals Association, Illinois Education Association, Illinois Federation of Teachers, the Professional Development Center and other partners): to work collaboratively with the Professional Development Director in developing the Principal Evaluation Tool Training workshop and materials. (6 meetings x 25 attendees)	6 x 25 persons	$200	$30,000
TOTAL TRAVEL COSTS			**$162,400**

4) Equipment: Equipment will be provided by the contractor under the existing agreement and at no additional cost to the State.

5) Supplies

Office supplies for general operating related to implementing the Principal Evaluation Tool Training Package pilot project for 300 new principals in RTTT funded districts and schools.	$500	Office Supplies	$500
TOTAL OFFICE SUPPLIES			**$500**

6) Contractual: As stated above, ISBE will expand its current contract with the Illinois Principals Association for management of the Principal Evaluation Tool Training Package. In addition to the personnel and travel costs referenced above, the following are additional contractual costs associated with this project. The Illinois State Board of Education will be in compliance with the procedures for procurement under 34 CFR Parts 74.40-74.48 and Part 80.36.

Production Costs

Meeting/Training Materials, Manuals for 20 trainers and 300 principals in the pilot program x $30each	$9,600	Production Costs	$9,600
TOTAL PRODUCTION COSTS			**$9,600**

Meeting Costs (6 Principal Evaluation Tool Training Workshops)

Meeting Room Rental: 6 Principal Evaluation Tool Training workshops (one in each geographical region of the state) @ $800 each x 2 days	$9,600	Meeting Costs	$9,600
Meeting refreshments: 6 meetings @ $300 each day x 2 days	$3,600	Refreshments	$3,600
Working Lunch: to maximize training time a working lunch (estimated at $20 each) will be served at 6 trainings for a total of 300 attendees and 10 staff x 2 days.	$12,800	Lunch x 2 days	$12,800
Meeting Room Rental: to develop the Principal Evaluation Tool Training workshop and materials in collaboration with partners at the SEA, Illinois Principals Association, Illinois Education Association, Illinois Federation of Teachers, the Professional Development Center and other partners. (6 meetings @ $800 each)	$4,800	Room Rental	$4,800
Meeting refreshments: 6 meetings @ $300 each day for the development of the Principal Evaluation Tool Training workshop and materials.	$3,600	Refreshments	$3,600
Audio-Visual Equipment rental at 6 meetings at $600 per meeting	$3,600	A-V Equipment	$3,600
TOTAL MEETING COSTS			**$38,000**

Professional Development: Development of the Principal Evaluation Tool Training, presenter fees, presenter mileage, and other costs associated with the professional development are incorporated in other sections of this budget.

Program Evaluation

Program Evaluation Analysis: Analysis of surveys given multiple times during the year to mentors, mentoring entities, new principals, and superintendents. Focus on program effectiveness and improvements in the program and training.	$37,000	Evaluation	$37,000
TOTAL PROGRAM EVALUATION			**$37,000**

Stipends

Mentors Stipends for one mentor for each principal (300) to be trained in the Principal Evaluation Tool Training and provide training and assistance to the principal. Total of 2days training and 1 day technical assistance per mentor.	300 x 3 days	$200	$180,000
TOTAL STIPEND COSTS			**$180,000**

7) Training Stipends: There will be no training stipends associated with this project.

8) Other: There will be no "other" costs associated with this project.

9) Total Direct Costs

PERSONNEL COSTS	**$72,500**
TRAVEL COSTS	**$162,400**
SUPPLIES	**$500**
CONTRACTUAL (includes production, meeting, program evaluation and stipend costs)	**$264,600**
TOTAL PROJECT DIRECT COSTS FOR ONE YEAR	**$500,000**

10) Indirect Costs: There are no indirect costs for this project.

11) Funding for Involved LEAs: The State's Plan does not include "involved" LEAs.

12) Supplemental Funding for Participating LEAs: There is no supplemental funding for Participating LEAs associated with this project.

13) Total Costs: $2,000,000

	Line 9	**Line 10**	**Line 11**	**Totals**
Year 1	500,000	0	0	500,000
Year 2	500,000	0	0	500,000
Year 3	500,000	0	0	500,000

Year 4	500,000	0	0	500,000
TOTAL				**2,000,000**

Budget Part II: Project-Level Budget Table Project Name: National Board Certification, Common Planning and Collaboration Associated with Criteria: Evidence for selection criterion (D)(5)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	2,093,000	4,002,000	4,002,000	4,002,000	14,099,000
2. Fringe Benefits	697,000	1,333,000	1,333,000	1,333,000	4,696,000
3. Travel	208,400	214,400	12,000	12,000	446,800
4. Equipment	0	0	0	0	0
5. Supplies	15,120	15,120	15,120	15,120	60,480
6. Contractual	249,000	249,000	249,000	249,000	996,000
7. Training Stipends	0	0	0	0	0
8. Other	3,575,000	400,000	120,000	120,000	4215,000
9. Total Direct Costs (lines 1-8)	7,592,400	6,410,800	5,707,120	5,707,120	24,513,280
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs					
12. Supplemental Funding for Participating LEAs	120,000	120,000	120,000	120,000	480,000
13. Total Costs (lines 9-12)	7,712,400	6,530,800	5,827,120	5,827,120	24,993,280

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
National Board Certification, Common Planning and Collaboration
(A School Intervention Proposal
Using National Board Certified Teachers (NBCTs) to
Advance Student Learning & Teacher Effectiveness in Low-Performing Schools)

The National Board Certification, Common Planning and Collaboration project is described in Section D(5) of the Application.

1) Personnel: All personnel are contractual.

Personnel: The following requested personnel will all be hired as employees of the project.	% FTE	Base Salary	Total
Director/National Board Certified Teacher (NBCT) Lead Mentor/Recruiter (1): NBCT will be responsible for co-leading and management of the Performance-Based Teacher and Principal Compensation Program and focus on Illinois schools outside of Chicago Public Schools. This NBCT is an expert in facilitating support of NBPTS candidates and the related professional development program *Take One!* and has at least three years of experience with NBPTS products and services in Illinois. NBCT will co-direct personnel work (along with co-director from Chicago Public Schools) in selected schools, Illinois Leadership Institutes, and Illinois Math and Science Academy. NBCT will report to the Race to the Top project director and be responsible for negotiating details related to the performance-based programs proposed in the plan.	100%	$75,000 @ 4 yrs.	$300,000
Director/NBCT Lead Mentor/Recruiter (2): NBCT will be responsible for co-leading and management of the Performance-Based Teacher and Principal Compensation Program and focus on schools in the Chicago Public Schools. This NBCT is an expert in facilitating support of NBPTS candidates and the related professional development program *Take One!* and has at least three years of experience with NBPTS products and services. NBCT will co-direct personnel work (along with co-director outside the Chicago Public Schools) in selected schools, Illinois Leadership Institutes, and Illinois Math and Science Academy. NBCT will report to the Race to the Top project director and be responsible for negotiating details related to the performance-based programs proposed in the plan.	100%	$75,000 @ 4 yrs.	$300,000
Clerical support for Director/NBCT Lead Mentor/Recruiter outside of Chicago. Clerical staff will manage operations, communication, financial payments, and support of the NBCT Director.	100%	$34,000 @ 4 yrs.	$136,000
Clerical support for Director/NBCT Lead Mentor/Recruiter in Chicago. Clerical staff will manage operations,	100%	$34,000 @ 4 yrs.	$136,000

communication, financial payments, and support of the NBCT Director.			
Illinois Math and Science Academy Coordinator will partner with schools to offer STEM instructional practices to the middle and high school teachers through inquiry-based methods to teach for deep conceptual understanding. IMSA's math and science NBCTs will serv as lead faculty for this project.	100%	$75,000 @ 4 yrs.	$300,000
3 NBCTs in each of 8 high-need high schools (24 total NBCTs) will be hired full-time for 4 years to (1) participate in modified Leadership Institutes and NBPTS mentor training; (2) deliver support to *Take One!* participants, NBPTS full-time candidates, Retake Candidates; and (3) co-plan and deliver with other NBCTs and the school principal school improvement professional development experiences for teachers in each school. Chosen NBCTs will have previous experience mentoring teachers through all NBPTS processes.	100%	$75,000 @ 4 yrs. x 24 NBCTs	$7,200,000
1.5 NBCTs in each of 16 Middle Schools (36 NBCTs) will be hired full-time for 3 years to (1) participate in modified Leadership Institutes and NBPTS mentor training; (2) deliver support to *Take One!* participants, NBPTS full-time candidates, Retake Candidates; and (3) co-plan and deliver with other NBCTs and the school principal school improvement professional development experiences for teachers in each school. Chosen NBCTs will have previous experience in mentoring teachers through NBPTS processes.		$75,000 @ 3 yrs. x 12 NBCTs	$5,400,000
Leadership Institute Coordinator/Consultant/Mentor will revise the Illinois Leadership Institutes to support principals toward the completion of the National Board Certification for Principals process, modify the trainings for NBCT leaders, and coordinate the delivery of the trainings to the NBCTs and principals from the selected schools.	100%	$75,000 @ 3 yrs.	$225,000
Clerical support for the Leadership Institute Coordinator /Consultant /Mentor will coordinate the arrangements for the schedules, meeting sites, and logistics of the Leadership Institutes.	100%	$34,000 @ 3 yrs.	$102,000
TOTAL			**$14,099,000.00**

2) Fringe Benefits

Personnel: The following requested personnel will all be hired as employees of the project.	%	Base Salary	Fringe Benefits	Total Fringe Benefits
Director/National Board Certified Teacher (NBCT) Lead Mentor/Recruiter (1): NBCT will be responsible for co-leading and management of the Performance-Based Teacher and Principal Compensation Program and focus on schools	33%	$75,000	$25,000 @ 4 yrs.	$100,000

outside of Chicago Public Schools. This NBCT is an expert in facilitating support of NBPTS candidates and the related professional development program *Take One!* and has at least three years of experience with NBPTS products and services in Illinois. NBCT will co-direct personnel work (along with co-director from Chicago Public Schools) in selected schools, Illinois Leadership Institutes, and Illinois Math and Science Academy. NBCT will report to the Race to the Top project director and be responsible for negotiating details related to the performance-based programs proposed in plan.				
Director/NBCT Lead Mentor/Recruiter (2): NBCT will be responsible for co-leading and management of the Performance-Based Teacher and Principal Compensation Program and focus on schools in the Chicago Public Schools. This NBCT is an expert in facilitating support of NBPTS candidates and the related professional development program *Take One!* and has at least three years of experience with NBPTS products and services. NBCT will co-direct personnel work (along with co-director outside the Chicago Public Schools) in selected schools, Illinois Leadership Institutes, and Illinois Math and Science Academy. NBCT will report to the Race to the Top project director and be responsible for negotiating details related to the performance-based programs proposed in the plan.	33%	$75,000	$25,000 @ 4 yrs.	$100,000
Clerical support for Director/NBCT Lead Mentor/Recruiter outside of Chicago. Clerical staff will manage operations, communication, financial payments, and support of the NBCT Director.	33%	$34,000	$11,000 @ 4 yrs.	$44,000
Clerical support for Director/NBCT Lead Mentor/Recruiter in Chicago. Clerical staff will manage operations, communication, financial payments, and support of the NBCT Director.	33%	$34,000	$11,000 @ 4 yrs.	$44,000
Illinois Math and Science Academy Coordinator will partner with schools to offer STEM instructional practices to the middle and high school teachers through inquiry-based methods to teach for deep conceptual understanding. IMSA's math and science NBCTs will serve as lead faculty for this project.	33%	$75,000	$25,000 @ 4 yrs.	$100,000
3 NBCTs in each of 8 high-need high schools (24 total NBCTs) will be hired full-time for 4 years to (1) participate in modified Leadership Institutes and NBPTS mentor training; (2) deliver support to *Take One!* participants, NBPTS full-time candidates, Retake Candidates; and (3) co-plan and deliver with other NBCTs and the school principal school improvement professional development experiences	33%	$75,000	$25,000 @ 4 yrs. x 24 NBCTs	$2,400,000

for teachers in each school. Chosen NBCTs will have previous experience mentoring teachers through all NBPTS processes.				
1.5 NBCTs in each of 16 Middle Schools (36 NBCTs) will be hired full-time for 3 years to (1) participate in modified Leadership Institutes and NBPTS mentor training; (2) deliver support to *Take One!* participants, NBPTS full-time candidates, Retake Candidates; and (3) co-plan and deliver with other NBCTs and the school principal school improvement professional development experiences for teachers in each school. Chosen NBCTs will have previous experience in mentoring teachers through NBPTS processes.	33%	$75,000	$25,000 @ 3 yrs. x 16 schools x 1.5 NBCTs	$1,800,000
Leadership Institute Coordinator/Consultant/Mentor will revise the Illinois Leadership Institutes to support principals toward the completion of the National Board Certification for Principals process, modify trainings for NBCT leaders, & coordinate delivery of trainings to NBCTs and principals from selected schools.	33%	$75,000	$25,000 @ 3 yrs.	$75,000
Clerical support for the Leadership Institute Coordinator /Consultant /Mentor will coordinate the arrangements for the schedules, meeting sites, and logistics of the Leadership Institutes.	33%	$34,000	$11,000 @ 3 yrs.	$33,000
TOTAL				**$4,696,000.00**

3) Travel

Travel: Travel expenses include $200 per day = $70 mileage; $100 hotel; $30 per diem;	# Trips	$ per Trip	Total
Leadership Institutes. 100 NBCTs and principals will participate in 16 days of training over 2 years to create professional learning communities (PLCs) within each school that are sustained over time, job-embedded, and focused on instruction strategies that will lead to improved classroom instruction and increased student achievement.	1600 (16 days @ 100 people)	$200	$320,000
Training Leadership Institute (LI) Trainers. The LI Coordinator/Mentor will train 5 Leadership Institute Trainers for 8 days over 2 years to plan and deliver training that extends principal's knowledge and skills in key leadership performance areas, such as leading school change, building & sustaining collaborative relationships, and building & maintaining accountability systems.	48 (8 days @ 6 people)	$200	$9,600
***Take One!* and Mentor Training**. 70 NBCTs will participate in 4 days of facilitator training to support *Take One!* candidates, first-	280 (4 days @	$200	$56,000

time candidates and retake candidates through the NBCT processes.	70 people)		
2 NBCT Directors will travel to participating schools, trainings, and meetings with state project director and the other Co-Director to plan, coordinate and support services over 4 years.	120 people @ 4 yrs. x 15 trips	$200	$24,000
LI Coordinator/Mentor/Consultant will travel to 36 trainings and to school visits to mentor principals and NBCTs over 3 yrs. Travel expense will be at a higher cost as the consultant will travel from out-of state to consult in IL.($100 hotel, $30 per diem, airfare and car rental $370 = $500)	36 (12 trips @ 3 yrs.)	$500	$18,000
5 LI Trainers will travel to 16 sessions over 2 yrs. to train NBCTs and principals to create professional learning communities that are sustained over time, job-embedded, and that provide the kind of collaborative learning that leads to long-term improvements in effective classroom practice and increased student achievement gains.	80 days (16 days @ 5 people)	$200	$16,000
4 *Take One!* and Mentor Trainers will travel to 4 days of training to train NBCTs to support *Take One!* Candidates, first-time candidates and retake candidates through the NBCT processes.	16 days (4 days @ 4 people)	$200	$3,200
TOTAL			**$446,800.00**

4) Equipment - NONE

5) Supplies

Training materials for the Leadership Institutes and *Take One!* and Mentor Training. (2,024 participant days @ $20)			$40,480
Office Supplies for communication, printing, postage (4 years @ $5,000)			$20,000
TOTAL			**$60,480.00**

6) Contractual

5 Leadership Institute Trainers will plan and deliver 16 sessions to train NBCTs and principals to create professional learning communities that are sustained over time, job-embedded, and that provide the kind of collaborative learning that leads to long-term improvements in effective classroom practice and increased student achievement gains.		$1,000 @ 16 days x 5 people	$80,000
NBCT *Take One!* and Mentor Trainers will plan and deliver 4 days of training to train NBCTs to support *Take One!* candidates, first-time candidates and Retake candidates through the National Board		$1,000 @ 4 days x 4 people	$16,000

Certification processes.			
Data Services including data collection and analysis will be used to evaluate & reflect on ongoing improvements to teaching practice, curriculum& instruction, and student learning.		$225,000 @ 4 years	$900,000
TOTAL			**$996,000**

* The Illinois State Board of Education will be in compliance with the procedures for procurement under 34 CFR Parts 74.40-74.48 and Part 80.36.

7) Training Stipends NONE

8) Other

Category	Purpose	Cost Description	Total
Fees for NBPTS *Take One*! professional development offering.	To support teams of teachers to participate in the NBPTS *Take One!* process as school-based professional development to improve teaching and learning.	$350 fee @ 1700 teachers in 24 schools.	$595,000
Application fees for National Board Certification (NBC) assessment process	To support a cohort of teachers in a school to complete the NBC process as a lever to improve teaching and learning.	$2,500 fee @ 1,200 teachers in 24 schools.	$3,000,000
Application fees for NBC Retake process (2 per candidate)	To build a community of teachers to support one another to complete the NBPTS process.	$350 fee @ 2 retake entries x 800 teachers	$560,000
Application fees for National Board Certification for Education Leaders (NBCEL) assessment process	To support the principal to participate in a rigorous self-reflective process to improve leadership knowledge and skills, teaching and student achievement in the school.	$2,500 fee @ 24 principals	$60,000
TOTAL			**$4,215,000.00**

9) Total Direct Costs $24,513,280.00.

9) Total Direct Costs					
Category	YEAR 1	YEAR 2	YEAR 3	YEAR 4	Total

1) Personnel	$2,093,000.00	$4,002,000.00	$4,002,000.00	$4,002,000.00	$14,099,000.00
2) Fringe Benefits	$697,000.00	$1,333,000.00	$1,333,000.00	$1,333,000.00	$4,696,000.00
3) Travel	$208,400.00	$214,400.00	$12,000.00	$12,000.00	$446,800.00
4) Equipment					
5) Supplies	$15,120.00	$15,120.00	$15,120.00	$15,120.00	$60,480.00
6) Contractual	$225,000.00	$225,000.00	$225,000.00	$225,000.00	$996,000.00
7) Training Stipends					
8) Other	$4,055,000.00	$400,000.00	$120,000.00	$120,000.00	$4,215,000.00
TOTAL					**$24,513,280.00**

10) Indirect Costs: NONE

11) Funding for Involved LEAs: The State Plan does not include involved LEAs.

12) Supplemental Funding for Participating LEAs

Activity	Purpose	Cost	# LEAs involved	Total
Funding for expenses for teachers to participate in school site professional development (Substitute Teachers, printing, flash drives, office supplies, videotapes, etc.	To enable NBCTs and principals to offer high quality professional development so teachers may use the NBPTS process to improve teaching and student achievement.	$5,000 for each of 4 years.	24	$480,000

13) Total Costs: $24,993,280.00

The sum of expenditures in lines 9-11, for each year of the budget.

13) Total Costs					
Category	YEAR 1	YEAR 2	YEAR 3	YEAR 4	Total
9) Total Direct Costs	$7,592,400.00	$6,410,800.00	$5,707,120.00	$5,707,120.00	$24,513,280.00
10)Total Indirect Costs					
11) Funding for Involved LEAs					
12) Supplemental LEAs	$120,000.00	$120,000.00	$120,000.00	$120,000.00	$480,000.00
13) Total Costs (10,11, 12)	$120,000.00	$120,000.00	$120,000.00	$120,000.00	$480,000.00
TOTAL Costs	$7,712,400.00	$6,530,800.00	$5,827,120.00	$5,827,120.00	$24,993,280.00

Budget Part II: Project-Level Budget Table

Project Name: Super LEA Supplemental Funding (including costs for performance evaluation implementation, E3 Program activities, Integration with Learning and Performance Management System and Turnaround Support)

Associated with Criteria: Evidence for selection criterion (C)(3), (D)(2) & (D)(3)

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Total (e)
1. Personnel	0	0	0	0	0
2. Fringe Benefits	0	0	0	0	0
3. Travel	0	0	0	0	0
4. Equipment	0	0	0	0	0
5. Supplies	0	0	0	0	0
6. Contractual	0	0	0	0	0
7. Training Stipends	0	0	0	0	0
8. Other	0	0	0	0	0
9. Total Direct Costs (lines 1-8)	0	0	0	0	0
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	4,000,000	5,500,000	4,000,000	2,500,000	16,000,000
13. Total Costs (lines 9-12)	4,000,000	5,500,000	4,000,000	2,500,000	16,000,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Super LEA Supplemental Funding

The Super LEA Supplemental Funding is described in Sections (C)(3), (D)(2) & (D)(3) of the Application. The State agreed to set-aside at least 10% of the 50% State Race to the Top allocation dedicated solely to Super LEAs. Super LEAs are those LEAs where both the LEA superintendent and local teachers' union leader agreed to three critical actions specified in Exhibit II of the Participating LEA MOU. There are 12 Super LEAs, distributed across the State and including more than 128,000 public school students, and 25 Illinois Priority Schools. Therefore, the State has allocated $16,000,000 of flexible funding for these Super LEAs. This funding may be used to support the following reform projects within these LEAs:

- Performance evaluation implementation
- E3 Program activities
- Integration with Learning and Performance Management System
- Turnaround support

ISBE will distribute this funding directly to the Super LEAs to be used in accordance with a reform plan approved by ISBE. The amount of funding given to a specific Super LEA will be based on the number of priority schools within the Super LEA.

1) **Personnel:** No personnel will be hired for this project.

2) **Fringe Benefits:** There are no fringe benefit expenses for this project.

3) **Travel:** There are no travel expenses associated with this project.

4) **Equipment:** There are no equipment related expenses for this project.

5) **Supplies:** There are no supply related expenses for this project.

6) **Contractual:** There are no contractual costs associated with this project.

7) **Training Stipends:** There are no training stipend expenses associated with this project.

8) **Funding to Super LEAs:** As described above, all funding for this project will be distributed directly to the Super LEAs in accordance with a plan approved by ISBE, with greater funding going towards Super LEAs with a large number of priority schools within the Super LEA. As further described in the Budget Summary Narrative, the most intensive funding will be provided in year 2 of the grant period for project implementation as year one will be primarily used for establishment and development of the project reform plans. The Super LEA funding will be according to the following funding schedule:

TIME PERIOD	BUDGET ALLOCATION
Year One: SY 2010-2011	**$4,000,000**
Year Two: SY 2011-2012	**$5,500,000**
Year Three: SY 2011-2012	**$4,000,000**
Year Four: SY 2011-2012	**$2,250,000**

TOTAL	**$16,000,000**

9) Total Direct Costs: $16,000,000 will be distributed by ISBE directly to Super LEAs as described above.

10) Indirect Costs: There are no indirect costs associated with this project.

11) Funding for Involved LEAs: The State Plan does not include involved LEAs.

12) Supplemental Funding for Participating LEAs: There is no supplemental funding for Participating LEAs for this project. All funding will be provided directly to Super LEAs.

13) Total Costs: $16,000,000.

Budget Part II: Project-Level Budget Table Project Name: Special Education Tuition Waiver Associated with Criteria: Evidence for selection criterion (D)(3)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	0	0	0	0	0
2. Fringe Benefits	0	0	0	0	0
3. Travel	0	0	0	0	0
4. Equipment	0	0	0	0	0
5. Supplies	0	0	0	0	0
6. Contractual	480,000	480,000	480,000	480,000	1,920,000
7. Training Stipends	0	0	0	0	0
8. Other	0	0	0	0	0
9. Total Direct Costs (lines 1-8)	0	0	0	0	0
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	480,000	480,000	480,000	480,000	1,920,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Special Education Tuition Waiver

The Special Education Tuition Waiver program is described in Section D(3) of the Application, Goal III. The State plans to expand its Special Education Tuition Waiver Program through additional funding provided by this grant. Funding for this program would be an expansion of the State's existing contract with the Illinois Student Assistance Commission (ISAC). ISBE will direct funds to ISAC and ISAC will use this funding to provide tuition waivers to eligible teachers or students through its existing program. The total amount of funds directed to ISAC under this budget is: $1,920,000.

1) Personnel: No personnel will be hired for this project. Existing ISAC personnel will support any administrative functions relating to the expansion of this project.

2) Fringe Benefits: There are no fringe benefit expenses for this project.

3) Travel: There are no travel expenses associated with this project.

4) Equipment: There are no equipment related expenses for this project.

5) Supplies: There are no supply related expenses for this project.

6) Contractual: As described above, this program is an expansion of a current contract the State has with ISAC. Funds in the amount of $480,000 per grant year, totaling $1,920,000 for the entire grant period, will be provided to ISAC. This funding will provide tuition waivers for approximately 80 eligible teachers or students who are pursuing a career in special education. Over the course of the grant period, a total of 320 eligible teachers/students will receive the tuition waiver. *[Average number of courses for a special education endorsement is 6 courses at approximately $1,000 per course, for a total of a $6,000 tuition waiver].* The Illinois State Board of Education will be in compliance with the procedures for procurement under 34 CFR Parts 74.40-74.48 and Part 80.36.

7) Training Stipends: There are no training stipend expenses associated with this project.

8) Other: There are no other funds associated with this project.

9) Total Direct Costs: $1,920,000,000 will be distributed by ISBE directly ISAC for the Special Education Tuition Waiver Program.

10) Indirect Costs: There are no indirect costs associated with this project.

11) Funding for Involved LEAs: The State Plan does not include involved LEAs.

12) Supplemental Funding for Participating LEAs: There is no supplemental funding for Participating LEAs for this project.

13) Total Costs: $1,920,000 ($480,00 per grant year).

Budget Part II: Project-Level Budget Table Project Name: Bilingual Teachers in Training Project Associated with Criteria: Evidence for selection criterion (D)(3)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	85,000	87,550	90,177	0	262,727
2. Fringe Benefits	28,000	28,840	29,707	0	86,547
3. Travel	4,662	1,554	1,554	0	7,770
4. Equipment	0	0	0	0	0
5. Supplies	300	0	0	0	300
6. Contractual	0	0	0	0	0
7. Training Stipends	120,000	102,000	114,000	0	336,000
8. Other	0	0	0	0	0
9. Total Direct Costs (lines 1-8)	237,962	219,944	235,438	0	693,344
10. Indirect Costs*	9,437	9,436	9,715	0	28,588
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	247,399	229,380	245,153	0	721,932

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Bilingual Teachers in Training Project

The Bilingual Teachers in Training project is described in Section D(3) of the Application.
1) Personnel: The Illinois Bilingual Teachers in Training Project (BTTP) requests funds for the project manager and project coordinator. These positions will be employees of ISBE.

Personnel: The following requested personnel will all be hired as employees of the project.	% FTE	Base Salary	Total
Project Manager (1): The Manager will be responsible for the overall leadership and management of Bilingual Teachers in Training Program (BTTP). This position will report to the Race To The Top Project Director and be responsible for negotiating details related to the planning, recruitment, and overall program coordination with participants and IBHE partner(s); oversee course contractual plans and/or payment disbursements; report to the RTTT Program Director and responsible for any and all related report submissions.	50%	$94,000	$47,000
Project Coordinator (1): The Coordinator will be responsible for selection, tracking and retention of participants as well as problem-solving and verification of school district employment; implement grant activities; initiate and implement any related training sessions.	80%	$48,000	$38,000

2) Fringe Benefits

Fringe Benefits: The following are the related benefits for requested personnel to be paid as employees of the project.	% FTE	Base Benefits	Total
Project Director (1) Project Coordinator (1)	50% 80%	$26,000 $18,000	$13,000 $15,000

3) Travel
The travel request will cover expenses of staff to and from class locations or partner meeting locations.

Travel: Travel expenses include the average mile reimbursements of $25 each, in addition to an amount of per diem of $28.	# Trips	$ per Trip	Total
Travel to and from IBHE; travel to class sessions (evenings);and to informational session(s).	1 -2 to IBHE (x2 staff x 3 years) 5 trips to class/meetings (1 x 3 years)	$253 $265	$759 $795

4) Equipment: There will be no equipment to purchase.

5) Supplies
The project will promote training opportunities, primarily through electronic delivery of coursework.

Supplies: Brochures	Cost of Item	Item Description	Total
Printing/copying – 5,000	$ 300	Recruitment brochures	$300

6) Contractual: There will be no contractual expenses.

7) Training Stipends
The project will negotiate with IHEs to offer courses over 2.5 years. The table below indicates the cost per year per cohort. Costs are based on $6,000 per credit hour.

Training: The project will offer participants coursework over a 3 year period.	Cost of Item	Item Description	Total
20 courses (16 toward standard certification and four Bilingual/ESL approval)	$6,000 per credit hour	16 at 3 credit hours; 1 at 2 hrs (16x3x$6,000); 1 course at 4 hour (4x $6,000); 2 at 1 hour (2x$6,000)	$324,000

8) Other: There will be no other costs.

9) Total Direct Costs

Total Direct costs	Cost of Item	Item Description	Total	
Year 1 Salaries Benefits Travel Supplies Training	$85,000/yr. $28,000/yr. $1,554/yr $300 $6,000/hour	Staff salaries for 1 year Staff benefits for 1 years Staff travel Recruitment brochures 7 courses (20 hours) **TOTAL YEAR 1**	$ 85,000 $ 28,000 $ 4,662 $ 300 $120,000 **$237,962**	
Year 2 Salaries Benefits Travel Training	$85,000/yr.+3 % $28,000/yr. $1,554/yr $6,000/hour	2 staff salaries 2 staff benefits +3% Staff travel 6 Courses (17 hours) **TOTAL YEAR 2**	$ 87,550 $ 28,840 $ 1,554 $ 102,000 **$219,944**	
Year 3 Salaries Benefits Travel	$ 87,550 + 3% $ 28,840 +3% $ 1,554 $6,000/hour	2 staff salaries 2 staff benefits Staff travel 7 courses (19 hours)	$ 90,177 $ 29,707 $ 1,554 $ 114,000	

Training		**TOTAL YEAR 3**	**$ 235,438**	
TOTAL DIRECT COSTS				**$693,344**

10) Indirect Costs
The Illinois State Board of Education Indirect Costs are set at 8%.

Indirect costs at 8%	Base total	8% rate	Total
Year 1 Salary, benefits, travel, supplies	$117,962	$9,437	
Year 2 Salary, benefits, travel	$117,944	$9,436	
Year 3 Salary, benefits, travel	$121,438	$9,715	
			$28,588

11. Funding for Involved LEAs: There will be no funding for Involved LEAs

12. Supplemental Funding for Participating LEAs: There will be no supplemental funding for Participating LEAs.

13. Total Costs: **$721,932**

	Line 9	**Line 10**	**Line 11**	**Totals**
Year 1	$237,962	9,437	0	$247,399
Year 2	$219,944	9,436	0	$229,380
Year 3	$235,438	9,715	0	$245,153
Year 4	No funding	No funding	No funding	0
TOTAL				**$721,932**

Budget Part II: Project-Level Budget Table Project Name: STEM Learning Exchanges Associated with Criteria: Evidence for selection criterion (B)(3)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	0	0	0	0	0
2. Fringe Benefits	0	0	0	0	0
3. Travel	0	0	0	0	0
4. Equipment	0	0	0	0	0
5. Supplies	0	0	0	0	0
6. Contractual	16,450,000	10,450,000	4,050,000	4,050,000	35,000,000
7. Training Stipends	0				
8. Other	0				
9. Total Direct Costs (lines 1-8)	16,450,000	10,450,000	4,050,000	4,050,000	35,000,000
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	16,450,000	10,450,000	4,050,000	4,050,000	35,000,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
STEM Learning Exchanges

The STEM Learning Exchanges project is described in Section B(3) of the Application. All expenses for this project are contractual and included in the contractual line item in the budget summary.

1) Personnel

The Illinois Business Roundtable (IBRT) will provide overall leadership for the development, management and oversight of the nine STEM Learning Exchanges in cooperation with the Illinois State Board of Education and other state agency partners. The IBRT will hire and fund a **Managing Director of STEM Learning Exchanges** as match to federal funding the cost of a 100 percent time director to work with staff from agency partners to perform this function. The IBRT also fund the personnel costs for this position for all four years of the project and will also fund all administrative and travel costs

Personnel: The following requested personnel will all be hired as employees of the project **as an in-kind match**	% FTE	Base Salary	Total
Managing Director of STEM Learning Exchanges will be responsible for the overall leadership and management STEM Learning Exchanges. This person will have extensive experience in working with business and industry, education and government partners in education initiatives	100%	$90,000	$360,000

2) Fringe Benefits

Estimated benefits are estimated at approximately 23% of salary for a total of $82,800.

3) Travel

The Managing Director of STEM Learning Exchanges will travel to Springfield IL four times per year to meet with and brief state stakeholders and will meet bi-monthly with leadership from the nine learning exchanges in Chicago for the four-year project. The 16 trips to Springfield will involve travel and per diem expenses of approximately $4,800 plus. The IBRT also will fund other travel expenses to make presentations around the state with an approximate budget of $5,000 for a total travel budget of $9,800

:

4) Equipment

The IBRT will provide an office with full use of computers, phones and other office equipment.

5) Supplies

The IBRT also will provide office supplies

6) Contractual

The IBRT will work with the Illinois State Board of Education to develop a common set of LPMS applications for managing Learning Exchanges to fulfill their major functions. These applications include:

- Developing and hosting competitive projects

- Distributing career development information and managing business involvement
- Coordinating work-based learning between businesses and schools
- Managing e-learning resources and materials
- Managing, coordinating and providing professional development
- Managing performance of the exchange

Illinois will contract with one or more application developers to work with the LPMS developer to develop and support these applications in the first two years of the project at a total cost of $5.3 million. The Illinois State Board of Education will follow the procedures for procurement under 34 CFR Parts 74.40 - 74.48 and Part 80.36 in engaging this developer.

The IBRT will work with each of the nine STEM Learning Exchanges and will designate or create a non-profit organization or foundation to receive federal funding. Each Exchange will receive $3.3 million in funding over the four years. These funds will be used for the following:

- $800,000 for salary and benefits for two full-time staff members over four years ($200,000 each year)
- $1,900,000 for e-learning, professional development and other materials and resources over four years with $1,500,000 used in the first two years for e-learning content and materials, $300,000 in the second year and $100,000 per year for professional development costs
- $600,000 for STEM Externships ($150,000 per year) which will support over 1,000 teachers over the course of four years

In addition, each Learning Exchange will be expected to raise at least $1 million in direct and indirect matching funds from business and industry partners and leverage substantially more funding by coordinating existing investments being made by all partners. The Illinois State Board of Education will be in compliance with the procurement requirements set forth under 34 CFR Parts 74.40-74.48 and Part 80.36

7) Training Stipends
No Training stipends are included in the budget request.

8) Other
No other expenses are included in the budget request

9) Total Direct Costs
Total direct costs are only the contractual costs for the application development and the operation of the STEM Learning Exchanges for $35,000,000.

10) Indirect Costs: No indirect costs are included in the budget request.

11) Funding for Involved LEAs
No funding is requested for this project for LEAs

13) Total Costs: The total funding request for support STEM Learning Exchanges is $35,000,000.

Budget Part II: Project-Level Budget Table Project Name: College and Career Readiness (Community Colleges) Associated with Criteria: Evidence for selection criterion (B)(3)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	46,500	46,500	46,500	0	139,500
2. Fringe Benefits	5,985.70	5,985.70	5,985.70	0	17,957.10
3. Travel	4,500	4,500	4,500	0	13,500
4. Equipment	0	0	0	0	0
5. Supplies	0	0	0	0	0
6. Contractual	1,268,370	1,268,369	1,268,369.91	0	3,805,108.91
7. Training Stipends	0	0	0	0	0
8. Other	0	0	0	0	0
9. Total Direct Costs (lines 1-8)	1,325,355.70	1,325,354.70	1,325,355.61		3,976,066.01
10. Indirect Costs*	7,977.99	7,977.99	7,978.01	0	23,933.99
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	1,333,333.69	1,333,332.69	1,333,333.62	0	4,000,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
College and Career Readiness (Community Colleges)

The College and Career Readiness project is described in Section (B)(3) of the Application. For this project, ISBE will contract with and enter an intergovernmental agreement with the Illinois Community College Board (ICCB). Through the 4 million dollar budget, ICCB will work on a variety of college and career readiness initiatives, in cooperation with local high schools and middle schools, with specific focus given to activities designed to increase alignment between high school and college curriculums such as Programs of Study, CCR and integration of STEM education. Funding will also go towards programs designed to reduce the need for remediation at the post secondary level.

1) Personnel: All personnel are contractual.

Personnel: The following requested personnel will all be hired as employees of the project.	% FTE	Base Salary	Total
Director for College and Career Readiness (1)(ICCB): This person will be responsible for overall leadership and management of the implementation and evaluation of the College and Career Readiness Project for STEM. The person selected for this position will be experienced in the delivery of remedial education and will understand both the secondary and postsecondary education systems in Illinois. (3 year position) $787 for Health/Dental Insurance, 67425 for Medicare, 4524.45 State University Retirement System (3 years).	100%	$46,500	$139,500
TOTAL PERSONNEL FOR GRANT PERIOD			$139,500

2) Fringe Benefits: The total Fringe benefits for the Director of College and Career readiness for 3 years of employment is $17,957.10.

3) Travel: Travel-- to selected community college sites to review their college readiness program--15 trips per year; approximately 300 per trip-- approximately $103 dollars state hotel rate; federal reimbursement rate for mileage (estimated at $165 per trip); $32.00 per day for per diem. The purpose of the travel will be to review the progress of programs in the development and delivery of interventions, the effectiveness of curriculum alignment efforts, and the progress of the college in the development of local data collection methods as the LDS is being developed.
Total Travel Budget: $13,500 (15 trips by Director per year, for a total of 45 trips total, at a rate of $300 per trip)

4) Equipment: There will be no equipment costs associated with this project.

5) Supplies: There will be no supply costs associated with this project.

6) Contractual:

- Data collection and support-- $40,000 per year to support data analysis (3 years)
  Total: $120,000

- Program Evaluation--A contract to support qualitative and quantitative program evaluation of the success of the CCR in STEM interventions and curriculum alignment activities ($70,000 per year over 3 years). NOTE: The Basis for this dollar amount is based upon the cost to evaluate pilot sites being evaluated in the College and Career Readiness Pilot Project Act.
  Total: $210,000

- Professional Development--Contract for the a professional development conference and the delivery of specific, training for teachers and instructors involved in the delivery of remedial interventions and curriculum alignment teams (40,000 year 1; 40,000 year 2; 20,108.91 year 3)
  Total: $100,108.91

- Contracts with fifteen community colleges for three years to delivery of Remedial Interventions consistent with the following goals: (1) reduce remediation by developing interventions aimed at decreasing the need for remedial coursework in mathematics, reading, and writing at the college level--targeting high school juniors and seniors, especially as it relates to STEM fields; (2) align high school and college curriculums in STEM education; (3) provide resources and academic support to students to enrich their junior senior year of high school through remedial or advanced coursework and other interventions aimed at preparing students for STEM fields. These efforts will be focused specifically on low performing LEAs that have opted to participate in the RTTT application. It will focus on remediation as it relates to STEM fields. Over 3 years.
  Total: $3,375,000
- The Illinois State Board of Education will be in compliance with the procurement requirements set forth under 34 CFR Parts 74.40-74.48 and Part 80.36

Contractual Total: $3,805,108.91

7) Training Stipends: There will be no training stipends associated with this project.

8) Other: There are no other costs associated with this project.

9) Total Direct Costs

COST OF PERSONNEL	$139,500
FRINGE BENEFITS	$17,957.10
COST OF TRAVEL	$13,500
CONTRACTUAL	$3,805,108.91
TOTAL DIRECT COSTS (4 YEARS)	**$3,976,066.01**

10) Indirect Costs: Indirect costs are budgeted at 14% per year of personnel, fringe, and travel costs over 3 years for a total of $23,933.99.

11) Funding for Involved LEAs: The State Plan does not include involved LEAs.

12) Supplemental Funding for Participating LEAs: There will be no supplemental funding for Participating LEAs.

13) Total Costs: $4,000,000

	Line 9	**Line 10**	**Line 11**	**Totals**
Grant Period Years 1-3	$3,976,066.01	$23,933.99	0	4,000,000
TOTAL				**4,000,000**

Budget Part II: Project-Level Budget Table Project Name: Dropout Prevention & Reenrollment Associated with Criteria: Evidence for selection criterion (E)(2)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	0	0	0	0	0
2. Fringe Benefits	0	0	0	0	0
3. Travel	0	0	0	0	0
4. Equipment	0	0	0	0	0
5. Supplies	0	0	0	0	0
6. Contractual	0	0	0	0	0
7. Training Stipends	0	0	0	0	0
8. Other (to Regional Superintendants of Education)	8,000,000	17,000,000	0	0	25,000,000
9. Total Direct Costs (lines 1-8)	0	0	0	0	0
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	8,000,000	17,000,000	0	0	25,000,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Dropout Prevention & Reenrollment

The Dropout Prevention & Reenrollment Project, to be administered through the Illinois Hope and Opportunity Pathways through Education (IHOPE) Program, is described in Section E(2) of the Application, Goal III. All funding for the Dropout Prevention & Reenrollment Program will used to support the establishment of IHOPE regional delivery systems for re-enrolling students who have dropped out of school. As a result, funding will flow from ISBE directly to the Regional Superintendents of Education, who will then distribute these funds to the Participating LEAs, with funding priority given to regions of the State with a high number of Illinois Priority high schools the Illinois.

1) Personnel: No personnel will be hired for this project. Existing IHOPE personnel will support any administrative functions relating to the expansion of this project.

2) Fringe Benefits: There are no fringe benefit expenses for this project.

3) Travel: There are no travel expenses associated with this project.

4) Equipment: There are no equipment related expenses for this project.

5) Supplies: There are no supply related expenses for this project.

6) Contractual: There are no contractual costs associated with this project.

7) Training Stipends: There are no training stipend expenses associated with this project.

8) Funding to Regional Superintendents of Education: As described above, all funding for this project will be distributed directly to Regional Superintendents, who, in turn, will then distribute this funding to Participating LEAs, with priority given to those districts with high drop-out rates. Funding allocated for year 1 and 2 of the grant period are as follows:

TIME PERIOD	PROGRAM/ENROLLMENT GOAL	BUDGET ALLOCATION
Year One: 2010-2011	1,800 enrolling openings will be developed (1,200 fulltime and 600 halftime), re-enrolling 3,600 students with 1,500 earning a High School Diploma.	**$8,000,000** for re-enrollment programs. Funding of $2,000 to $9,000 per student depending on the type of program to be developed, with the average being $4,500 to $5,000 per student.
Year Two: 2011-2012	Phase I: 1,800 enrolling openings will continue, re-enrolling 3,600 students with 1,500 earning a High School Diploma. Phase II: 3,600 enrolling openings will be developed, re-enrolling 7,100 students with 3,000 earning a High	**$17,000,000** for the re-enrollment programs. Per student funding will range from $2,000 to $9,000 depending on the type of program to be developed, with the average cost being approximately $4,500 to $5,000 per student.

	School Diploma.*	

9) Total Direct Costs: $25,000,000 will be distributed by ISBE directly to Regional Superintendents to then distribute, as described above, to Participating LEAs.

10) Indirect Costs: There are no indirect costs associated with this project.

11) Funding for Involved LEAs: The State Plan does not include involved LEAs.

12) Supplemental Funding for Participating LEAs: There is no supplemental funding for Participating LEAs for this project. All funding will be provided to the Regional Superintendents of Education.

13) Total Costs: $25,000,000.

Budget Part II: Project-Level Budget Table Project Name: State Monitoring, Data Collection, Measurement, and Reporting Associated with Criteria: Evidence for selection criterion (E)(2)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	0	0	0	0	0
2. Fringe Benefits	0	0	0	0	0
3. Travel	0	0	0	0	0
4. Equipment	5,000	0	0	0	5,000
5. Supplies	0	0	0	0	0
6. Contractual	5,010,600	5,010,600	4,860,600	4,860,600	19,742,400
7. Training Stipends	0	0	0	0	0
8. Other	0	0	0	0	0
9. Total Direct Costs (lines 1-8)	5,015,600	5,010,600	4,860,600	4,860,600	19,747,400
10. Indirect Costs*					
11.Funding for Involved LEAs					
12. Supplemental Funding for Participating LEAs					
13. Total Costs (lines 9-12)	5,015,600	5,010,600	4,860,600	4,860,600	19,747,400

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
State Monitoring, Data Collection, Measurement, and Reporting

The State Monitoring, Data Collection, Measurement, and Reporting project is described in Sections D(2), D(3) and E(2) of the Application.

4) Equipment

Equipment: Consistent with SEA policy, equipment is defined as tangible, non-expendable, personal property having a useful life of more than one year and an acquisition cost of $100 or more per unit.	Cost of Item	Item Description	Total
Desktop Computers (5): Five desktop computers will be needed to supply the needs of 5 contractors.	$1,000	Computer	$5,000
Sub-Total Equipment			**$5,000**

6) Contractual

The Illinois State Board of Education will be in compliance with the procurement requirements set forth under 34 CFR Parts 74.40-74.48 and Part 80.36		
	Annual Cost	**Total**
One (1) contractual position to coordinate the collection of required data for reporting needs. Activities to include, working with system programmers to design data collection tools, dissemination of technical instructions to LEAs in regarding reporting requirements • 120 Days • 7.5 Hours Per Day • $60 Per Hour	$54,000	$216,000
Three (3) contractual positions for data collection efforts and ensuring the reliability of reported data • 120 Days • 7.5 Hours Per Day • $40 Per Hour	$108,000	$432,000
One (1) contractual position for development of electronic data collection tools. • 2,000 Hours Per Year • $75 Per Hour	$150,000 (Years 1 and 2 only)	$300,000

One (1) contractual position for Project Management. Activities to include overseeing the development and implementation of the Measurement Plan, LEA Accreditation with NCA CASI (see below), ITAC development, and Scorecard Reporting. • 2,000 Hours Per Year • $105 Per Hour	$210,000	$840,000
Multiple regionally based contracts with Certified Public Accounting Firms for fiscal monitoring of sub-grantee awards. • 16,400 Hours • $150 per Hour	$615,000	$2,460,000
Contractor to develop: (i) web design application and "Scorecard" reporting for State, LEA, and school performance, student growth data, teacher and principal performance data, and other metrics specified in the Measurement Plan; and (ii) training modules to support LEA use of reporting tools.	$500,000	$2,000,000
Intergovernmental Agreement and/or a contract with an entity that will be procured to develop and implement detailed Measurement Plan and support LEA reporting of performance measures and indicators included within the Measurement Plan.	$500,000	$2,000,000
Index of Teacher Academic Capital data collection, preparation, and analysis (see attached itemization)	$150,000	$600,000

Payment for 4-year Participating LEA membership in the North Central Association Commission on Accreditation and School Improvement (NCA CASI) and one site visit from the AdvanceED Quality Assurance Review Team during the grant period.
 	
• $4400/school for 2,476 schools
  ○ $600/year for NCA CASI Membership
  ○ $2000 for one site visit
	$2723,600	$10,894,400

		Total
Sub-Total Contractual	**$5,010,600** (Yrs. 1 & 2) **$4,860,600** (Yrs. 3 & 4)	**$19,742,400**

9) Total Direct Costs

Year 1:	$5,015,600
Year 2:	$5,010,600
Year 3:	$4,860,600
Year 4:	$4,860,600
Total:	$19,747,400

13) Total Costs

	Line 9	Line 10	Line 11	Totals
Year 1	$5,015,600			$5,015,600
Year 2	$5,010,600			$5,010,600
Year 3	$4,860,600			$4,860,600
Year 4	$4,860,600			$4,860,600
TOTAL	$19,747,400			**$19,747,400**

Index of Teacher Academic Capital Itemization

Contractor: Illinois Education Research Council (IERC), located at Southern Illinois University Edwardsville, through an Intergovernmental Agreement with the Illinois State Board of Education.

Itemized Annual Project Budget: 4 year project

1) Personnel

Personnel: The following requested personnel will all be hired as employees of the project.	% FTE	Base Salary	Total
Kathleen S. Brown, Executive Director & PI, will be responsible for the overall leadership and management of the project. She has particular expertise in education research and evaluation, having studied professional development school partnerships in K-12 and higher education settings. She will report to ISBE for management of the ITAC project.	(b)(6)		$29,430
Brenda Klostermann, Associate Director, has expertise in project management and evaluation. She will assist with the management of the project, coordination of data collection with charter schools, design and content of reports, and presentations.	(b)(6)		$20,904
Brad White, Senior Researcher, has expertise with large database management, education policy, and statistical data analyses. He conducted the analysis for the revised Index of Teacher Academic Capital and has extensive experience with the Illinois Teacher Service Record file and the Teacher Certification Information System. He will be responsible for data preparation and analysis, and will participate in report writing and presentations.	(b)(6)		$32,274
Jennifer Barnhart, Research Associate, has expertise in online data	(b)(6)		$3,570

collection, research support, and design for reports and presentations. She will provide support for logistics, research activities, and production of reports and presentations.			
Subtotal: Salaries			**$86,178**

2) Fringe Benefits

Fringe Benefits: The following rates are based on SIU's standard formula of 9.73% retirement, 1.45% Medicare (SIU does not participate in Social Security), and $1400/month/FTE insurance.	% FTE	Base Salary	Total
Kathleen S. Brown, Executive Director & PI	(b)(6)		$7,490
Brenda Klostermann, Associate Director			$6,537
Brad White, Senior Researcher			$12,008
Jennifer Barnhart, Research Associate			$2,079
Subtotal: Fringe Benefits			**$28,114**

3) Travel

Travel: Travel expenses include the average mile reimbursements, flight costs, hotel costs, per diem costs.	# Trips	$ per Trip	Total
In-state Travel: Present and dissemination research findings to state education agencies and other stakeholders (ISBE, IBHE, P20 Council) located in Springfield, IL and Chicago, IL; travel for charter school data collection	8 trips x 2 people (PI & another researcher)	$500 (average)	$8,000
Out-of-state Travel: Present research findings at national conferences such as American Educational Research Association (AERA)	1 trip x 2 people (PI & another researcher)	$4,000	$4,000
Subtotal: Travel			**$12,000**

5) Supplies

Supplies:	Cost of Item	Item Description	Total
Office supplies	$1,208		$1,208
Subtotal: Supplies			**$1,208**

6) Contractual

Contractual:	Cost of Item	Item Description	Total
Data (purchased data to compute the ITAC scores)	$9,000		$9,000

Contractors (data collection, report writing, research expertise)	$12,000		$12,000
Subtotal: Contractual			**$21,000**

8) Other

Other:	Cost of Item	Item Description	Total
Printing report of research findings	$1,500		$1,500
Subtotal: Other			**$1,500**

9) Total Costs

Total Costs:			Total
Costs			**$150,000**

Budget Part II: Project-Level Budget Table Project Name: Illinois Collaborative for Education Policy Research Associated with Criteria: Evidence for selection criterion (B)(3)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	239,384	249,078	255,000	258,000	1,001,462
2. Fringe Benefits	62,771	64,000	66,839	69,000	262,610
3. Travel	50,000	50,000	50,000	50,000	200,000
4. Equipment	5,000	5,000	0	0	10,000
5. Supplies	4,704.25	4,704.25	4,704.25	4,704.25	18,817
6. Contractual	181,500	181,500	0	0	363,000
7. Training Stipends	0	0	0	0	0
8. Other	47,173.25	47,173.25	47,173.25	47,173.25	188,693
9. Total Direct Costs (lines 1-8)	590,532.50	601,455.50	423,716.50	428,877.50	2,044,582
10. Indirect Costs*	113,854.50	113,854.50	113,854.50	113,854.50	455,418
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	704,387	715,310	537,571	542,732	2,500,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Illinois Collaborative for Education Policy Research (ICEPR)

The Illinois Collaborative for Education Policy Research (ICEPR) is described in Section (C)(2) of the Application, Goal I, Subsection C. As outline below, 60% of the budget is allocated to administration of the ICEPR and 40% is dedicated to research through small grants to "seed" projects with universities or graduate research assistants with the ICEPR.

1) Personnel: All personnel will be contractual.

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total**
Principal Investigator (1): Debra Bragg will be responsible for the overall leadership and management of the ICEPR.	(b)(6)		$58,244
Director of Research and Operations	100%	$75,000	$75,000
Program Associate	100%	$50,000	$50,000
Graduate Research Assistants (3) (Doctoral level) 3 during the academic year (9 months)	150% (3 @ 50%)	$30,622	$45,933
Graduate Research Assistants (3) (Doctoral level) 3 during the summer (2 months)	150% (3 @ 50%)	$30,622	$10,207
TOTAL FOR 1 YEAR			**$239,384**
TOTAL FOR 4 YEARS (including small salary increases over 4 year period)			**$1,001,462**

2) Fringe Benefits

Position	Percentage Fringe Benefits	Fringe Benefits Year 1	Fringe Benefits, Grant Period (taking into account small salary increases over grant period)
Principal Investigator	32.88%	$19,151	$80,119
Director of Research and Operations	32.88%	$24,659	$103,162
Program Associate	32.88%	$16,441	$68,785
Graduate Research Assistants (3) (academic year) and (3) summer	4.49%	$2,520	$10,544
TOTALS		**$62,771**	**$262,610**

3) Travel: The travel budget includes domestic travel for the ICEPR staff and travel for members of the ICEPR advisory committee to attend 10-12 committee meetings per year. ICEPR staff travel is budgeted at $20,000 per year and travel for the advisory committee is

budgeted at $30,000 per year ($200 per person, per year, with 150 people). ICEPR anticipates having 25 participants at each meeting and approximately 10-12 meeting per year.
TOTAL TRAVEL COSTS: $200,000

4) Equipment: There will be expenses for desktop/laptop computers and printer totaling $10,000 for the grant period ($9,000 for 5 desktop/laptop computers and $1,000 for two printers).

5) Supplies: There will be supply charges for consumable project supplies and software totaling $18,817 ($15,817 for consumable project supplies and $3,000 for software).

6) Contractual: The ICEPR, as discussed above, will involve grants to "seed" projects within universities. ICEPR will grant 5 awards during the first year and 5 different awards during the second year for various research projects. Each award will be $36,300, totaling $181,500 per year for grant years 1 and 2, for a total contractual budget of: $363,000. The Illinois State Board of Education will be in compliance with the procurement requirements set forth under 34 CFR Parts 74.40-74.48 and Part 80.36

7) Training Stipends: There will be no training stipends.

8) Other: Other costs are as follows for the grant period:

- Telecommunications: $10,000
- Duplication/Printing: 19,683
- Meeting Costs: 27,500
- Tuition Remission: 131,510

Total: $188,693

9) Total Direct Costs

Cost Category	**Total Cost for Grant Period**
Personnel	$1,001,462
Fringe	$262,610
Travel	$200,000
Equipment	$10,000
Supplies	$18,817
Contractual	$363,000
Other	$188,693
TOTAL	**$2,044,582**

10) Indirect Costs: Indirect costs have been budgeted to be 25.3% of the modified total direct costs (total direct costs less tuition remission). Total indirect costs for the grant period are: $455,418.

11) Funding for Involved LEAs: The State's plan does not include Involved LEAs.

12) Supplemental Funding for Participating LEAs: There will be no supplemental funding for Participating LEAs.

13) Total Costs: $2,500,000

	Line 9 Total Direct Costs (Grant Period)	**Line 10 (Grant Period)**	**Line 11 (Grant Period)**	**Totals**
	2,044,582	455,418	0	$2,500,000
TOTAL				**$2,500,000**

Budget Part II: Project-Level Budget Table Project Name: Learning and Performance Management System Associated with Criteria: Evidence for selection criterion (C)(3)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	0	0	0	0	0
2. Fringe Benefits	0	0	0	0	0
3. Travel	0	0	0	0	0
4. Equipment	0	0	0	0	0
5. Supplies	0	0	0	0	0
6. Contractual	15,000,000	15,000,000	7,060,000	5,500,000	42,560,000
7. Training Stipends	0	0	0	0	0
8. Other	0	0	0	0	0
9. Total Direct Costs (lines 1-8)	15,000,000	15,000,000	7,060,000	5,500,000	42,560,000
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	2,000,000	440,000	0	2,440,000
13. Total Costs (lines 9-12)	15,000,000	17,500,000	7,500,000	5,500,000	45,000,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Learning and Performance Management System

The Learning and Performance Management System is described in Section C(3) of the Application.

6) Contractual

The Illinois State Board of Education will be in compliance with the procurement requirements set forth under 34 CFR Parts 74.40-74.48 and Part 80.36	
Contract with an entity or entities to be procured for LPMS System Development and establishment of the cloud environment, including: • Hosting infrastructure • Portal Platform • Data Integration Platform • Assessments for Learning integration • Student Vault development • Curriculum management (STEM Learning Exchanges hosting and integration) • Standard reporting	$30,000,000
Contract with an entity or entities to be procured for assistance with LEA integration and training on LEA use of the system. *Note:* ISBE assumes this will be included within the scope of the contract for the system developer.	$8,000,000
One (1) contractual position for ISBE Project Management. • 2,000 Hours Per Year • $120 Per Hour	$960,000
Eight (8) contractual positions for integration with existing ISBE systems, programming, maintenance, administration, and Help Desk assistance. • 2,000 hours in FY 11-12, 12-13, and 13-14 • $75 per hour	$3,600,000
Sub-Total Contractual	**$42,560,000**

9) Total Direct Costs: $42,560,000

12) Supplemental Funding for Participating LEAs

Activity	Purpose	Cost	Approx. # of LEAs	Total
Pilot migration of Participating LEAs to the cloud environment for student information and instructional improvement applications.	Pilot the LPMS and cloud environment and reduce technology infrastructure costs for these LEAs	The costs for the pilot migration will be determined through a detailed cost analysis performed by the LPMS developer.	TBD upon analysis of LPMS developer	$2,440,000

13) Total Costs: $45,000,000

	Line 9	**Line 10**	**Line 11**	**Totals**
Year 1	15,000,000	0	0	15,000,000
Year 2	17,500,000	0	0	17,500,000
Year 3	7,500,000	0	0	7,500,000
Year 4	5,000,000	0	0	5,000,000
TOTAL				**$45,000,000**

Budget Part II: Project-Level Budget Table Project Name: State Performance Evaluation Support Systems Associated with Criteria: Evidence for selection criterion (D)(2)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	310,000	310,000	310,000	310,000	1,240,000
2. Fringe Benefits	0	0	0	0	0
3. Travel	0	0	0	0	0
4. Equipment	307,500	307,500	307,500	307,500	1,230,000
5. Supplies	0	0	0	0	0
6. Contractual	672,500	603,408	5,823,200	525,800	7,624,908
7. Training Stipends	0	0	0	0	0
8. Other	0	39,645	3,237,420	194,465	3,471,530
9. Total Direct Costs (lines 1-8)	1,290,000	1,260,553	9,678,120	1,337,765	13,566,438
10. Indirect Costs*	65,000	65,780	204,620	19,500	354,900
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	1,355,000	1,326,333	9,882,740	1,357,265	13,921,338

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
State Performance Evaluation Support Systems

The State Performance Evaluation Support Systems Project is described in Section D(2) of the Application, Goal I.

1) Personnel: The following personnel will work on the development of the new system on a contractual basis through the Statewide System of Support. All personnel are contractual.

Personnel: The following are contractual personnel.	% FTE	Base Salary	Total
Director	100%	$100,000	$100,000
Professional Staff 1	100%	$80,000	$80,000
Professional Staff 2	100%	$80,000	$80,000
Assistant	100%	$50,000	$50,000
Total Year 1			$310,000
Total Years 1-4			$1,240,000

2) Fringe Benefits: There are no fringe benefits associated with this project.

3) Travel: There will be no travel expenses associated with this project.

4) Equipment: The State will provide all participating districts with $500 per school to be used for the purchase of video equipment for use in teacher evaluations. The districts can determine whether the funds are allocated to individual schools or maintained by the district office.
Total equipment budget per year: $1,230,000 ($500 each for 2,460 schools)

5) Supplies: There are no supply expenses associated with this project.

6) Contractual: All of the services provided to districts will be provided by contractual service providers.

- Teacher Evaluation (Year 1): District/Union negotiation: Facilitation of district/union negotiation regarding growth measures in evaluation—each of the twelve Super LEAs with priority schools will receive expert facilitation of their negotiations.
  Total Cost: 10 days @ $1,500/day equal $15,000 X 12 (Super LEAs) = $180,000
- Evaluator prequalification (Year 2-4): In order to conduct evaluations of teachers, principals and assistant principals will have to be prequalified which will include an assessment of their evaluation practice. The qualification program will require five days training for all evaluators.
  Cost: Training at $250 per evaluator.
  - Year 2: 19 evaluators x 250 = $4,750
  - Year 3: 736 evaluators x 250 = $184,000
  - Year 4: 111 evaluators x 250 = $27,750
- **Total Cost: $216,500**
- Teacher training (Years 2-4): All teachers will be required to participate in two days training to prepare them for the evaluation process and help them to understand the

student growth measures. All training will take place on existing professional development days.
Cost: $50 per teacher (2 days of training).

- Year 2: 1,923 teachers x 50 = $96,150
- Year 3: 73,568 teachers x 50 = $3,678,400
- Year 4: 11,111 teachers x 50 = $555,550

Total Cost: $4,330,100

- Principal training (Years 2-3): All principals in the state will be required to participate in two days of training prior to their own evaluation. The training will be led by a prequalified trainer.
  Cost: $167.00 per principal for Year 2 and $100 per principal for Year 3 (2 days of training).
  - Year 2:12 principals x 167 = $2,004
  - Year 3: 3,900 principals x 100 = $390,000

  Total Cost: $392,004
- Superintendents (Years 2-3) (and others who evaluate principals) will receive two days of training to prepare them to conduct effective evaluations.
  Cost: $167.00 per superintendent for Year 2 and $100 per superintendent for Year 3 (2 days of training)
  - Year 2:12 superintendents x 167 = $2,004
  - Year 3: 43 superintendents x 100 = $4,300
  - **Total Cost: $6,304**
- Evaluation Contract State will contract with a major evaluation organization to provide both formative evaluation to support implementation and a summative evaluation to determine the impact and effectiveness of the teacher and principal evaluation initiative.
  Total Cost: $2,500,000
- The Illinois State Board of Education will be in compliance with the procedures for procurement under 34 CFR Parts 74.40 - 74.48 and Part 80.36.

7) Training Stipends: There are no training stipend expenses associated with this project.

8) Other:

- Teacher training materials (Years 2-4): All teachers will be provided with $15 worth of materials, e.g., handouts, printed materials. Each evaluator will be provided with the teacher materials and copies of any relevant books, e.g., Danielson's Framework for Teaching, at a cost of $50 per evaluator.
  - Year 2: 1,923 teachers x 15 = $28,845
  - Year 2: 96 evaluators x 50 = $4,800
  - Year 3: 73,568 teachers x 15 = $1,103,520
  - Year 3: 3,678 evaluators x 50 = $183,900
  - Year 4: 11,111 teachers x 15 = $166,665

- Year 4: 556 evaluators x 50 = $27,800

Total Cost: $1,515,530

- Principal evaluation data collection tools (Years 2-3): Each school will receive a set of data collection tolls that will inform principal evaluation (e.g., Val Ed 360 review tools, school climate survey). Final materials will be determined as part of the state rulemaking process.

  Cost: $500 per set of data collection tools
  - Year 2:12 schools x 500= $6,000
  - Year 3: 3,900 schools x 500= $1,950,000

  Total Cost: $1,956,000

9) Total Direct Costs: The total direct costs for expense categories 1-8 for the entire grant period is: **$13,566,438**

10) Indirect Costs: 13.4% of system development costs and purchase of video equipment for districts, totaling $354,900.

11) Funding for Involved LEAs: The State Plan does not include involved LEAs.

12) Supplemental Funding for Participating LEAs: There is no supplemental funding for participating LEAs.

13) Total Costs: $13,921,338

	Line 9	**Line 10**	**Line 11**	**Totals**
Year 1	1,290,000	65,000	0	1,355,000
Year 2	1,260,553	65,780	0	1,326,333
Year 3	9,678,120	204,620	0	9,882,740
Year 4	1,337,765	19,500	0	1,357,265
TOTAL	13,566,438	354,900		**$13,921,338**

Budget Part II: Project-Level Budget Table Project Name: Teacher Performance Assessments Associated with Criteria: Evidence for selection criterion (D)(2)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	593,627	668,627	1,218,627	1,218,627	3,699,508
2. Fringe Benefits	0	0	0	0	0
3. Travel	11,250	11,250	11,250	11,250	45,000
4. Equipment	0	0	0	0	0
5. Supplies	2,000	2,000	2,000	2,000	8,000
6. Contractual	650,000	1,050,000	750,000	400,000	2,850,000
7. Training Stipends	0	0	0	0	0
8. Other	0	0	0	0	0
9. Total Direct Costs (lines 1-8)	1,256,877	1,731,877	1,981,877	1,631,877	6,602,508
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	1,256,877	1,731,877	1,981,877	1,631,877	6,602,508

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Teacher Performance Assessments

The Teacher Performance Assessment project is described in Section D(2) of the Application. With this $6,500,000 budget, ISBE will contract with a consortium formed by the Council of Chief State School Officers (CCSSO), the American Association of College Teacher Education (AACTE) and a team of researchers at Stanford University and the University of Washington (the "Consortium"). This Consortium will be primarily responsible for the development, piloting and implementation of the teacher performance assessments for both new and experienced teachers. Under the contract, the Consortium will implement teacher performance assessments to evaluate teachers for initial licensure (Tier 1) and professional licensure (Tier 2, following any probationary period). ISBE will also contract with an outside project manager who will be responsible for working with the Consortium and ensuring the smooth implementation of the teacher performance assessments. All expenses for this project will be contractual.

1) Personnel: The following personnel are contractual.

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total**
Project Manager (1) .	100%	$85,000	$85,000
Teacher Performance Assessment Consortium (TPAC) Site Directors (60 over 4 years)(1 per participating school)($25,000 per Director) Year 1: 0 Year 2: 3 Year 3: 25 Year 4: 25	25%	Year 1: 0 Year 2:$75,000 Year 3:$625,000 Year 4: $625,000	
Consortium Personnel (includes Stanford University and University of Washington personnel and support, technical assistance of implementation issues, benchmarkers, trainers and scorers)	Range	$508,627	$508,627
TOTAL FOR YEAR 1			$593,627
TOTAL FOR YEAR 2			$668,627
TOTAL FOR YEAR 3			$1,218,627
TOTAL FOR YEAR 4			$1,218,627
TOTAL PERSONNEL			**$3,699,508**

2) Fringe Benefits: There will be no fringe benefit expenses associated with this project.

3) Travel and Meeting: The travel budget includes funding for both in state and national meeting.
Total Travel Budget: $45,000

4) Equipment: There will be no equipment expenses for this project.

5) Supplies: $8,000 ($2,000 per year).

6) Contractual: As discussed above, all project expenses are contractual. The State will enter into a contract with the Consortium and also a contract with a Project Manager to oversee the work of the Consortium and ensure the smooth implementation of the teacher performance evaluations. In addition, the Consortium and the Project Manager will undertake the following contractual activities:

- Teacher Performance Assessment Development for Tier 1 and Tier 2 evaluations
  Total Cost: $300,000 ($100,000 per year for 3 years)

- Pilot Project to include a representative sample of state institutes of higher learning and involve reliability and validity studies of proposed teacher performance assessments.
  Total Cost: $600,000 ($300,000 for each assessment, Tier 1 in 2010-11 and Tier 2 in 2011-2012)

- Tier 1 Field Trials and Implementation: 2010-2013
  Total Cost: $750,000 ($250,000 each year for 3 years)

- Tier 2 Field Trials and Implementation: 2011-2014
  Total Cost: $1,200,000 ($400,000 each year for 3 years)
- The Illinois State Board of Education will be in compliance with the procurement requirements set forth under 34 CFR Parts 74.40-74.48 and Part 80.36.

Total Contractual Budget: $2,850,000

7) Training Stipends: There will be no training stipends.

8) Other: There are no other costs.

9) Total Direct Costs

Cost Category	Total Cost for Grant Period
Personnel	$3,699,508
Travel	$45,000
Supplies	$8,000
Contractual	$2,850,000
TOTAL	**$6,602,508**

10) Indirect Costs: There are no indirect costs associated with this project.

11) Funding for Involved LEAs: The State's plan does not include Involved LEAs.

12) Supplemental Funding for Participating LEAs: There will be no supplemental funding for Participating LEAs.

13) Total Costs: $6,602,508

	Line 9 Total Direct Costs (Grant Period)	**Line 10 (Grant Period)**	**Line 11 (Grant Period)**	**Totals**
	$6,602,508	0	0	**$6,602,508**
TOTAL				**$6,602,508**

Budget Part II: Project-Level Budget Table Project Name: Illinois Math and Science Partnership Program Expansion Associated with Criteria: Evidence for selection criterion (D)(3)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	0	0	0	0	0
2. Fringe Benefits	0	0	0	0	0
3. Travel	0	0	0	0	0
4. Equipment	0	0	0	0	0
5. Supplies	0	0	0	0	0
6. Contractual	0	0	0	0	0
7. Training Stipends	0	0	0	0	0
8. Other (Grants to Institutes of Higher Learning)	1,925,000	2,275,500	1,575,000	0	5,775,000
9. Total Direct Costs (lines 1-8)	0	0	0	0	0
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	1,925,000	2,275,500	1,575,000	0	5,775,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Illinois Math and Science Partnership Program Expansion

The Illinois Math and Science Partnership (IMSP) Expansion project is described in Section (D)(3) of the Application, Goal III. Funding for the IMSP Expansion project is allocated to institutions of higher education, which then partner with high need Participating LEAs to increase the math and science expertise of teachers within these LEAs.

1) Personnel: No additional personnel ISBE personnel will be employed for this project. All administrative matters regarding the expansion of this project will be handled by the employees currently responsible for the IMSP.

2) Fringe Benefits: There are no fringe benefits associated with this project.

3) Travel: There are no travel expenses associated with this project.

4) Equipment: There are no equipment expenses associated with this project.

5) Supplies: There are no supply expenses associated with this project.

6) Contractual: There are no contracts awarded under this project.

7) Training Stipends: There are no training stipends associated with this project.

8) Other: As described above, this project is an expansion of an existing project administered by the State. ISBE will provide grants to institutes of higher learning to expand their current IMSP programs. There are two IMSP programs: the IMSP Graduate Program offers a master's degree in math and/or science with a focus on K-12 instruction, and the IMSP Summer Workshop/Institute offers teachers specific professional development in math and science content matter and effective pedagogy in focused areas of math and/or science. The budget for expansion of these two programs is based on their current budgets. Through this expansion project, IMSP will include funding for openings for an additional 175 teachers in the IMSP Summer Workshop/Institute and an additional 150 teachers in the IMSP Graduate Program. The following chart outlines the costs associated with expanding these programs to the additional teachers:

IMSP Program	Year 1	Year 2	Year 3	Year 4	Total
Summer Workshop/Institute (175 new teachers)	875,000	1,225,000	525,000	No funding provided.	2,625,000
Graduate Program (150 new teachers)	1,050,000	1,050,000	1,050,000	No funding provided	3,150,000
Total					5,775,000

9) Total Direct Costs

IMSP Program	Year 1	Year 2	Year 3	Year 4	Total

Expansion					
Total	1,925,000	2,275,000	1,575,000	0	5,775,000

10) Indirect Costs: There are no indirect costs associated with this project.

11) Funding for Involved LEAs: The State's Plan does not include "involved" LEAs.

12) Supplemental Funding for Participating LEAs: There will be no supplemental funding to LEAs provided under this project.

13) Total Costs: $5,775,000

	Line 9	**Line 10**	**Line 11**	**Totals**
Year 1	1,925,000	0	0	1,925,000
Year 2	2,275,000	0	0	2,275,000
Year 3	1,575,000	0	0	1,575,000
Year 4	0	0	0	0
TOTAL				**$5,775,000**

Budget Part II: Project-Level Budget Table Project Name: Educator Preparation Advisory Groups Associated with Criteria: Evidence for selection criterion (D)(4)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	7,500	7,500	7,500	7,500	30,000
2. Fringe Benefits	0	0	0	0	0
3. Travel	105,000	105,000	105,000	105,000	420,000
4. Equipment	0	0	0	0	0
5. Supplies	0	0	0	0	0
6. Contractual	0	0	0	0	0
7. Training Stipends	0	0	0	0	0
8. Other (substitute teacher reimbursement and meetings)	22,200	22,200	22,200	22,200	88,800
9. Total Direct Costs (lines 1-8)	134,700	134,700	134,700	134,700	538,800
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	134,700	134,700	134,700	134,700	538,800

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Educator Preparation Advisory Groups

The Educator Preparation and Advisory Groups will work collaboratively with all shareholders to develop a set of recommendations for the Illinois State Board of Education to seek new legislation to improve the preparation of educators in Illinois institutions of higher education. The budget below if for one year. Funding for grants years 2-4 will remain at the same level as grant year 1. Each year the advisory groups will focus on different grade levels (e.g. elementary, middle and high school) and/or different content areas (e.g. math, science, reading).

1) Personnel: This position is a contractual position.

Personnel: The following requested personnel will all be hired as employees of the project.	% FTE	Base Salary	Total
Project Coordinator (1): This contractual individual will be responsible for the coordination and preparation of all materials, meetings, and communications, as well as facilitation of meetings and subgroups. It is essential that this individual collect all materials produced by the groups, organize, update and disseminate them for each meeting. The building and documentation of the groups' work is critical to the analysis, interpretation and potential writing of legislation to change the preparation of Illinois educators. The salary is based upon 120 hours of work at $62.50 per hour	10%	$75,000	$7,500
TOTAL COST OF PERSONNEL			**$7,500**

2) Fringe Benefits

- No fringe benefits will be provided under the contract for Project Coordinator.

3) Travel

Travel: Travel expenses include the average mile reimbursements of $100 each, in addition to an amount of per diem of $50.	# Trips	$ per Trip	Total
There will be four separate and distinct advisory groups of 25 individuals each. Travel will vary depending on distance from the meeting sites. State travel guidelines will be followed for travel costs. Travel is essential to enable advisory group members to work efficiently and reach their goal which is to produce recommendations for the SEA to make legislative changes impacting the preparation of Illinois educators.	$175 x100 participants x 6 meetings	$17,500	$105,000
TOTAL COST OF TRAVEL			**$105,000**

4) Equipment

- No equipment will be purchased for this project.

5) Supplies

- Materials and supplies for the project will be provided by the Educator & School Development Division, Illinois State Board of Education.

6) Contractual

- A contract will be issued for professional services of a Project Coordinator as previously described.
- For the professional services contract, the estimated amount of time to be devoted to the project is 120 hours at $62.50 per hour.
- The Illinois State Board of Education will be in compliance with the procedures for procurement under 34 CFR Parts 74.40 - 74.48 and Part 80.36.

7) Training Stipends

- No training stipends will be paid.

8) Other

- Reimbursement to local school districts for substitute teachers when teacher members of the advisory groups attend the meetings.

Substitute Teacher Reimbursement: Local school districts will be reimbursed for the cost of a substitute teacher when the teacher of record is attending the advisory group meetings	Number of Meetings	$ per meeting	Total
Of the 100 advisory group members, approximately 10% (10) will be teachers. Local school districts agree to release the teachers of record, but cannot be expected to absorb the cost of the substitute teacher. The substitute teacher pay varies statewide, but the average is $100 per day.	$100 x10 participants x 6 meetings	$1000	$6,000
TOTAL SUBSTITUTE TEACHER REIMBURSEMENT			**$6,000**

Cost of meeting space, beverages and meals for working lunches.	Number of Meetings	$ per meeting	Total
100 advisory group members will be attending all six meetings to identify recommendations for improving educator preparation. It is necessary to offer working lunches to maximize the time that participants have together. Costs will follow state guidelines.	$15 x100 participants x 6 meetings	$1,500	$9,000
4 meeting rooms, one for each advisory group.	Per room x 4 rooms x 6 meetings	$1,200	$7,200
TOTAL MEETING COSTS			**$16,200**

9) Total Direct Costs

COST OF PERSONNEL	**$7,500**
COST OF TRAVEL	**$105,000**
SUBSTITUTE TEACHER REIMBURSEMENT	**$6,000**
TOTAL MEETING COSTS	**$16,200**
TOTAL COSTS (1 YEAR)	**$134,700**
TOTAL DIRECT COSTS (4 YEARS)	**$538,800**

10) Indirect costs: There will be no indirect costs associated with this project.
11) Funding for Involved LEAs: The State's Plan does not include "involved" LEAs.

12) Supplemental Funding for Participating LEAs: There will be no supplemental funding to LEAs provided under this project.

13) Total Costs: $538,800

	Line 9	**Line 10**	**Line 11**	**Totals**
Year 1	134,700	0	0	134,700
Year 2	134,700	0	0	134,700
Year 3	134,700	0	0	134,700
Year 4	134,700	0	0	134,700
TOTAL				**$538,800**

Budget Part II: Project-Level Budget Table Project Name: Induction and Mentoring Technical Assistance and Accountability Associated with Criteria: Evidence for selection criterion (D)(5)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	640,000	640,000	640,000	640,000	1,920,000
2. Fringe Benefits	224,640	224,640	224,640	224,640	898,560
3. Travel	30,000	30,000	30,000	30,000	120,000
4. Equipment	0	0	0	0	0
5. Supplies	60,000	60,000	60,000	60,000	240,000
6. Contractual	0	0	0	0	0
7. Training Stipends	0	0	0	0	0
8. Other	151,700	151,700	61,700	61,700	426,800
9. Total Direct Costs (lines 1-8)	1,106,340	1,106,340	1,016,340	1,016,340	4,245,360
10. Indirect Costs*	148,250	148,250	136,190	136,190	568,880
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	1,254,590	1,254,590	1,152,530	1,152,530	4,814,240

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Technical Assistance and Program Accountability for Beginning Teacher Induction Programs in Illinois

The Technical Assistance and Program Accountability for Beginning Teacher Induction Programs in Illinois project is described in Section (D)(5) of the Application, Goal I, B. Funding for this project will concentrate on accelerating new teacher development through building the State systems necessary to ensure high quality induction and mentoring programs.

1) Personnel: All personnel will be contractual.

Personnel: The following requested personnel will all be hired as employees of the project.	% FTE	Base Salary	Total
Technical Assistance Outreach Coordinators (6) The Outreach Coordinators will provide direct technical assistance to induction programs, provide regional trainings, and other necessary activities to ensure quality induction programming	100%	$90,000	$540,000
Project Director / Lead (1) Project Director will provide oversight and coordinate the work throughout the state	50%	$100,000	$50,000
Project Administrator (1) Project Administrator will provide logistical support for Outreach Coordinators and Project Director	100%	$50,000	$50,000
TOTAL FOR YEAR 1:			$640,000
TOTAL FOR GRANT PERIOD			$1,920,000

2) Fringe Benefits: Fringe benefits are 46.8% of the personnel costs. Therefore, fringe benefits are budgeted at $224,640 per year, for a total of $898,560.

3) Travel: Travel funds will be used for National NTC staff consultation and some direct service or training. The budget contains 15 days trips at $2,000 per trip for a total of $30,000 per year and $120,000 per grant period.

4) Equipment: There will be no equipment costs associated with this project.

5) Supplies: The project will require the purchasing of technical assistance tools (via licensing agreements) for a total of $60,000 per year and $240,000 for the grant period.

6) Contractual: There will be no contractual costs associated with this project.

7) Training Stipends: There will be no training stipends associated with this project.

8) Other

- **Meetings**

- Meeting with travel for 3 day retreat start up for Technical Assistance Outreach Coordinators and Project Lead totaling $20,000 for one year and $60,000 for the grant period.
- Meeting with travel for Technical Assistant Outreach Coordinators and Project Lead for monthly coordination (8 people X 12 meetings = 96 trips at $200 per trip) totaling $19,200 for one year and $76,800 for the grant period.

TOTAL MEETING COST: $39,200 per year and $156,800.

- **Consultation with NTC Directors** ($1,500 per day X 15 days = $22,500 for one year and $90,000 for the grant period).
  - NTC Directors will provide consultation to design the technical assistance structure and support the development of technical assistance, tools and protocols.
- **Induction Institutes** (3) at $30,000 each for $90,000 for year 1 and $180,000 for the grant period.
- **Total Other Cost: $151,700 for years 1 and 2 and $61,700 for years 3 and 4.**

9) Total Direct Costs

COST OF PERSONNEL	**$640,000**
FRINGE BENEFITS	**$224,640**
COST OF TRAVEL	**$30,000**
SUPPLIES	**$60,000**
OTHER (Meetings, Consultations, Induction Institutes)	**$151,700 (yr 1 and 2) $61,700 (yr 3 and 4)**
TOTAL COSTS (YEAR 1 and 2)	**$1,106,340**
TOTAL COSTS (YEAR 3 and 4)	**$1,016,340**
TOTAL DIRECT COSTS (4 YEARS)	**$4,245,360**

10) Indirect Costs: Indirect costs are budgeted at 13.4% per year for a total of $148,250 (rounded to nearest dollar) for years one and two and $136,189.56 for years 3 and 4.

11) Funding for Involved LEAs: The State Plan does not include involved LEAs.

12) Supplemental Funding for Participating LEAs: There will be no supplemental funding for Participating LEAs.

13) Total Costs: $4,814,240

	Line 9	**Line 10**	**Line 11**	**Totals**
Year 1	1,106,340	148,250	0	1,254,590
Year 2	1,106,340	148,250	0	1,254,590
Year 3	1,016,340	136,190	0	1,152,530
Year 4	1,016,340	136,190	0	1,152,530
TOTAL				**4,814,240**

Budget Part II: Project-Level Budget Table Project Name: Illinois Partnership Zone Administration and Direct State Interventions Associated with Criteria: Evidence for selection criterion (D)(2)					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	270,000	270,000	270,000	270,000	1,080,000
2. Fringe Benefits	0	0	0	0	0
3. Travel	28,000	28,000	28,000	28,000	112,000
4. Equipment	4,000	0	0	0	4,000
5. Supplies	1,000	1,000	1,000	1,000	4,000
6. Contractual	697,000	1,577,000	3,101,000	3,101,000	8,476,000
7. Training Stipends	0	0	0	0	0
8. Other	0	0	0	0	0
9. Total Direct Costs (lines 1-8)	1,000,000	1,876,000	3,400,000	3,400,000	9,676,000
10. Indirect Costs*	0	0	0	0	0
11.Funding for Involved LEAs	0	0	0	0	0
12. Supplemental Funding for Participating LEAs	0	0	0	0	0
13. Total Costs (lines 9-12)	1,000,000	1,876,000	3,400,000	3,400,000	9,676,000

All applicants must provide a break-down by the applicable budget categories shown in lines 1-15.
Columns (a) through (d): For each project year for which funding is requested, show the total amount requested for each applicable budget category.
Column (e): Show the total amount requested for all project years.
*If you plan to request reimbursement for indirect costs, complete the Indirect Cost Information form at the end of this Budget section. Note that indirect costs are not allocated to lines 11-12.

PROJECT-LEVEL BUDGET NARRATIVE
Illinois Partnership Zone Administration and Direct State Interventions

All expenses associated with this project are contractual.

1) Personnel (contractual)

Personnel: The following requested personnel will all be hired through the project's contractor.	% FTE	Base Salary	Annual	Total
Project Director (1) (contractual): The project director will be a full time senior position within ISBE. This person will have management responsibilities for the following tasks: • Procuring Lead and Supporting Partners and monitoring progress and quality of work • Developing and implementing a performance management system for participating LEAs and Partners • Coordinating: internal work with other departments in the agency; Advisory Partnership Zone Council; development of indicators, benchmarks and metrics for monitoring and evaluation; professional support for LEA leadership • Oversight of data collection, analysis and reporting • Oversight for site visit monitoring The individual must have strong project management skills, and experience in school reform and intensive school-level interventions.	100%	$95,000	$95,000	$380,000
Project Coordinator (1) (contractual): The Project Coordinator will manage the Lead Partner and Supporting Partner work and the two project staff – oversight and support at the LEA level.	100%	$75,000	$75,000	$300,000
Project Support Staff (2): The Project Support Staff will perform site visits, oversee data collection and analysis, and support project management of the division.	100%	$50,000	$100,000	$400,000
Personnel Subtotal			$270,000	$1,080,000

2) Fringe Benefits: There are no fringe benefits included in the budget for this project as all personnel above are contractual.

3) Travel (contractual)

Travel Description	# Trips	Annual	Total
Two staff will undertake four site visits/month; 40 per year.	40 trips; $150/visit	$6,000	$24,000
The Project Director will attend national conferences and visits to other states performing similar work.	4 trips; $1,000/trip	$4,000	$16,000
Travel reimbursement for Advisory Council meetings	3 meetings per year; 30 attendees; $200 reimbursement	$18,000	$72,000
Travel Subtotal		$28,000	$112,000

4) Equipment (contractual)(one time purchase during year 1)

Equipment: Consistent with SEA policy, equipment is defined as tangible, non-expendable, personal property having a useful life of more than one year and an acquisition cost of $1,000 or more per unit.	Cost of Item	Item Description	Total
Desktop Computers (4): Three desktop computers will be needed to expand our current office and supply the needs of 3 new employees.	$1,000	Computer including monitor	$4,000

5) Supplies (contractual)

General office supplies:
Annual: $1000
Total: $4,000
Based on estimates of costs consistent with the funding of other divisions in ISBE.

6) Contractual: In addition to the other expenses set forth above, are the following contractual expenses.

The Illinois State Board of Education will be in compliance with the procurement requirements set forth under 34 CFR Parts 74.40-74.48 and Part 80.36	
Measurement Plan Development and Implementation (specific to Illinois Partnership Zone)	$100,000 (per year)

Direct contracts between ISBE and Lead/Supporting Partners to undertake direct State interventions in LEAs that do not demonstrate a willingness or ability to undertake the dramatic action necessary to improve student outcomes ($500,000 - $750,000/school/year; budget will depend on need and may require re-allocation of other State and federal funds to support).	$8,076,000
Sub-Total Contractual	**$8,476,000**

9) Total Direct Costs: $9,468,736

10) Indirect Costs: There are no indirect costs associated with this project.

13) Total Costs: $9,676,000

	Line 9	**Line 10**	**Line 11**	**Totals**
Year 1	1,000,000	0	0	1,000,000
Year 2	1,876,000	0	0	1,876,000
Year 3	3,400,000	0	0	3,400,000
Year 4	3,400,000	0	0	3,400,000
TOTAL				**$9,676,000**

Appendix A3-1

Data on State Progress

A. NAEP Data

B. ISAT Data

C. PSAE Data

D. High School Graduation Data

A. NAEP Data

National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)

National Assessment of Educational Progress (NAEP)

This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

Report 1: Table

Percentages at each achievement level for reading, grade 4, by year, jurisdiction, and All students [TOTAL]: 2003, 2005, and 2007

		All students			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	34.95	32.89	24.19	7.97
2005	Illinois	37.78	32.82	22.65	6.76
2003	Illinois	38.76	30.42	23.11	7.71

NOTE: Detail may not sum to totals because of rounding.

Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005 and 2007 Reading Assessments.

Report 2: Table

Percentages at each achievement level for reading, grade 4, by year, jurisdiction, and Natl School Lunch Prog eligibility (3 categories) [SLUNCH3]: 2003, 2005, and 2007

		Eligible			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	52.37	31.64	13.55	2.44
2005	Illinois	59.33	27.43	11.26	1.99
2003	Illinois	59.13	27.07	11.64	2.16

		Not eligible			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	21.33	33.87	32.51	12.30
2005	Illinois	22.14	36.65	30.97	10.24
2003	Illinois	21.82	33.20	32.70	12.28

		Info not available			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	‡	‡	‡	‡
2005	Illinois	‡	‡	‡	‡
2003	Illinois	54.60	28.04	13.54	3.82

‡ Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005 and 2007 Reading Assessments.

Report 3: Table

Percentages at each achievement level for reading, grade 4, by year, jurisdiction, and Race/ethnicity (from school records) [SDRACE]: 2003, 2005, and 2007

White

Year	Jurisdiction	Below basic	At basic	At proficient	At advanced
2007	Illinois	23.30	34.26	30.91	11.54
2005	Illinois	21.81	36.62	31.48	10.09
2003	Illinois	25.66	32.66	30.29	11.39

Black

Year	Jurisdiction	Below basic	At basic	At proficient	At advanced
2007	Illinois	56.26	29.48	12.55	1.71
2005	Illinois	64.59	25.94	8.18	1.30
2003	Illinois	63.94	25.63	8.85	1.58

Hispanic

Year	Jurisdiction	Below basic	At basic	At proficient	At advanced
2007	Illinois	50.07	32.22	14.68	3.03
2005	Illinois	56.38	29.60	11.81	2.21
2003	Illinois	57.86	27.35	13.16	1.64

Asian/Pacific Island

Year	Jurisdiction	Below basic	At basic	At proficient	At advanced
2007	Illinois	13.14	33.03	37.48	16.35
2005	Illinois	24.81	31.01	31.70	12.48
2003	Illinois	16.08	37.92	34.99	11.02

American Indian

Year	Jurisdiction	Below basic	At basic	At proficient	At advanced
2007	Illinois	‡	‡	‡	‡
2005	Illinois	‡	‡	‡	‡
2003	Illinois	‡	‡	‡	‡

Unclassified

Year	Jurisdiction	Below basic	At basic	At proficient	At advanced
2007	Illinois	‡	‡	‡	‡
2005	Illinois	‡	‡	‡	‡
2003	Illinois	‡	‡	‡	‡

‡ Reporting standards not met.

NOTE: Black includes African American, Hispanic includes Latino, Pacific Islander includes Native Hawaiian, and American Indian includes Alaska Native.

Race categories exclude Hispanic origin unless specified. Detail may not sum to totals because of rounding.

Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005 and 2007 Reading Assessments.

Report 4: Table

Percentages at each achievement level for reading, grade 4, by year, jurisdiction, and Student classified as English Language Learner (2 categories) [LEP]: 2003, 2005, and 2007

Year	Jurisdiction	Below basic	ELL At basic	At proficient	At advanced
2007	Illinois	76.64	20.00	3.09	0.27
2005	Illinois	81.73	14.67	3.25	0.35
2003	Illinois	78.42	16.28	4.28	1.02

Year	Jurisdiction	Below basic	Not ELL At basic	At proficient	At advanced
2007	Illinois	31.65	33.91	25.86	8.58
2005	Illinois	34.34	34.22	24.17	7.27
2003	Illinois	36.43	31.24	24.22	8.10

Rounds to zero.

NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005 and 2007 Reading Assessments.

Report 5: Table

Percentages at each achievement level for reading, grade 4, by year, jurisdiction, and Student classified as having a disability, including 504 [IEP]: 2003, 2005, and 2007

Year	Jurisdiction	Below basic	SD At basic	At proficient	At advanced
2007	Illinois	63.20	22.48	10.50	3.82
2005	Illinois	64.33	20.84	11.75	3.08
2003	Illinois	68.51	20.30	9.52	1.66

Year	Jurisdiction	Below basic	Not SD At basic	At proficient	At advanced
2007	Illinois	31.59	34.13	25.82	8.46
2005	Illinois	35.19	33.98	23.71	7.12
2003	Illinois	34.96	31.73	24.85	8.46

NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005 and 2007 Reading Assessments.

National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)

National Assessment of Educational Progress (NAEP)

This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

Report 1: Table

Percentages at each achievement level for reading, grade 8, by year, jurisdiction, and All students [TOTAL]: 2003, 2005, and 2007

		All students			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	25.12	45.08	27.46	2.34
2005	Illinois	25.37	43.59	28.34	2.71
2003	Illinois	23.06	42.41	31.07	3.46

NOTE: Detail may not sum to totals because of rounding.

Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005 and 2007 Reading Assessments.

Report 2: Table

Percentages at each achievement level for reading, grade 8, by year, jurisdiction, and Natl School Lunch Prog eligibility (3 categories) [SLUNCH3]: 2003, 2005, and 2007

		Eligible			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	39.24	46.00	14.18	0.58
2005	Illinois	40.63	44.49	14.38	0.49
2003	Illinois	41.05	43.86	14.45	0.63

		Not eligible			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	16.09	44.48	35.95	3.48
2005	Illinois	16.18	43.07	36.74	4.02
2003	Illinois	12.88	41.25	40.67	5.20

		Info not available			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	‡	‡	‡	‡
2005	Illinois	‡	‡	‡	‡
2003	Illinois	25.32	47.91	25.80	0.96

Rounds to zero.

‡ Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding.

Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005 and 2007 Reading Assessments.

Report 3: Table

Percentages at each achievement level for reading, grade 8, by year, jurisdiction, and Race/ethnicity (from school records) [SDRACE]: 2003, 2005, and 2007

			White		
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	17.19	44.60	34.88	3.32
2005	Illinois	16.46	44.13	36.03	3.38
2003	Illinois	13.46	41.83	39.79	4.92

			Black		
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	45.66	44.45	9.70	0.19
2005	Illinois	47.00	40.71	11.42	0.86
2003	Illinois	43.60	43.25	12.91	0.25

			Hispanic		
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	35.87	48.57	15.20	0.36
2005	Illinois	35.01	46.15	17.69	1.15
2003	Illinois	39.36	44.97	15.14	0.54

			Asian/Pacific Island		
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	13.10	40.90	41.61	4.39
2005	Illinois	7.98	43.38	40.23	8.41
2003	Illinois	13.34	33.89	44.61	8.16

			American Indian		
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	‡	‡	‡	‡
2005	Illinois	‡	‡	‡	‡
2003	Illinois	‡	‡	‡	‡

			Unclassified		
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2007	Illinois	‡	‡	‡	‡
2005	Illinois	‡	‡	‡	‡
2003	Illinois	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

NOTE: Black includes African American, Hispanic includes Latino, Pacific Islander includes Native Hawaiian, and American Indian includes Alaska Native.

Race categories exclude Hispanic origin unless specified. Detail may not sum to totals because of rounding.

Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005 and 2007 Reading Assessments.

Report 4: Table

Percentages at each achievement level for reading, grade 8, by year, jurisdiction, and Student classified as English Language Learner (2 categories) [LEP]: 2003, 2005, and 2007

Year	Jurisdiction	Below basic	At basic	At proficient	At advanced
			ELL		
2007	Illinois	75.10	22.34	2.56	0.00
2005	Illinois	66.35	27.35	6.30	0.00
2003	Illinois	67.01	26.66	6.33	0.00
			Not ELL		
2007	Illinois	23.86	45.65	28.08	2.40
2005	Illinois	24.73	43.84	28.68	2.75
2003	Illinois	21.88	42.71	31.83	3.58

Rounds to zero.

NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005 and 2007 Reading Assessments.

Report 5: Table

Percentages at each achievement level for reading, grade 8, by year, jurisdiction, and Student classified as having a disability, including 504 [IEP]: 2003, 2005, and 2007

Year	Jurisdiction	Below basic	At basic	At proficient	At advanced
			SD		
2007	Illinois	64.64	27.04	7.45	0.88
2005	Illinois	61.84	31.20	6.96	0.00
2003	Illinois	59.72	35.17	5.03	0.09
			Not SD		
2007	Illinois	20.56	47.16	29.76	2.51
2005	Illinois	20.69	45.18	31.08	3.05
2003	Illinois	18.42	43.25	34.43	3.90

Rounds to zero.

NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005 and 2007 Reading Assessments.

National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)

National Assessment of Educational Progress (NAEP)

This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

Report 1: Table

Percentages at each achievement level for mathematics, grade 4, by year, jurisdiction, and All students [TOTAL]: 2003, 2005, 2007, and 2009

		All students			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	20.44	41.93	30.93	6.70
2007	Illinois	21.35	42.32	30.72	5.60
2005	Illinois	26.07	42.31	27.06	4.57
2003	Illinois	27.05	41.42	26.74	4.79

NOTE: Detail may not sum to totals because of rounding.
Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, 2007, and 2009 Mathematics Assessments.

Report 2: Table

Percentages at each achievement level for mathematics, grade 4, by year, jurisdiction, and Natl School Lunch Prog eligibility (3 categories) [SLUNCH3]: 2003, 2005, 2007, and 2009

		Eligible			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	34.20	47.65	16.84	1.11
2007	Illinois	36.19	46.88	16.10	0.82
2005	Illinois	44.01	41.23	13.38	1.37
2003	Illinois	47.53	41.52	10.21	0.74

		Not eligible			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	8.68	36.87	42.95	11.49
2007	Illinois	9.73	38.77	42.15	9.34
2005	Illinois	11.58	43.16	38.09	7.16
2003	Illinois	10.93	41.17	39.89	8.01

		Info not available			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	‡	‡	‡	‡
2007	Illinois	‡	‡	‡	‡
2005	Illinois	‡	‡	‡	‡
2003	Illinois	40.87	44.05	13.58	1.51

‡ Reporting standards not met.
NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, 2007, and 2009 Mathematics Assessments.

Report 3: Table

Percentages at each achievement level for mathematics, grade 4, by year, jurisdiction, and Race/ethnicity (from school records) [SDRACE]: 2003, 2005, 2007, and 2009

		White			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	9.52	38.87	42.10	9.51
2007	Illinois	8.94	40.84	42.11	8.11
2005	Illinois	11.30	44.48	37.74	6.48
2003	Illinois	12.55	43.11	36.95	7.39

		Black			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	45.82	43.26	10.30	0.62
2007	Illinois	45.99	44.58	9.04	0.40
2005	Illinois	53.78	37.28	8.40	0.54
2003	Illinois	55.92	37.02	6.73	0.33

		Hispanic			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	28.03	51.67	18.82	1.47
2007	Illinois	35.81	45.24	17.60	1.35
2005	Illinois	41.11	44.57	13.59	0.73
2003	Illinois	45.21	41.99	12.31	0.49

		Asian/Pacific Island			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	2.96	23.87	48.05	25.13
2007	Illinois	5.11	32.40	45.04	17.45
2005	Illinois	7.50	26.03	46.46	20.01
2003	Illinois	7.78	34.57	48.76	8.88

		American Indian			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	‡	‡	‡	‡
2007	Illinois	‡	‡	‡	‡
2005	Illinois	‡	‡	‡	‡
2003	Illinois	‡	‡	‡	‡

		Unclassified			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	18.96	42.50	32.19	6.35
2007	Illinois	23.04	50.40	21.50	5.06
2005	Illinois	‡	‡	‡	‡
2003	Illinois	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

NOTE: Black includes African American, Hispanic includes Latino, Pacific Islander includes Native Hawaiian, and American Indian includes Alaska Native.

Race categories exclude Hispanic origin unless specified. Detail may not sum to totals because of rounding.

Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, 2007, and 2009 Mathematics Assessments.

Report 4: Table

Percentages at each achievement level for mathematics, grade 4, by year, jurisdiction, and Student classified as English Language Learner (2 categories) [LEP]: 2003, 2005, 2007, and 2009

		ELL			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	47.18	42.20	9.82	0.80
2007	Illinois	49.84	41.52	7.89	0.76
2005	Illinois	63.80	30.99	4.40	0.80
2003	Illinois	65.56	29.81	4.55	0.09
		Not ELL			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	18.46	41.91	32.49	7.14
2007	Illinois	18.86	42.40	32.72	6.03
2005	Illinois	22.42	43.45	29.20	4.93
2003	Illinois	23.89	42.36	28.58	5.17

Rounds to zero.

NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, 2007, and 2009 Mathematics Assessments.

Report 5: Table

Percentages at each achievement level for mathematics, grade 4, by year, jurisdiction, and Student classified as having a disability, excluding 504 [IEP2009]: 2003, 2005, 2007, and 2009

		SD			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	39.53	37.41	18.98	4.08
2007	Illinois	—	—	—	—
2005	Illinois	—	—	—	—
2003	Illinois	—	—	—	—
		Not SD (including 504)			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	17.74	42.57	32.62	7.07
2007	Illinois	—	—	—	—
2005	Illinois	—	—	—	—
2003	Illinois	—	—	—	—

— Not available.

‡ Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, 2007, and 2009 Mathematics Assessments.

National Center for Education Statistics (NCES)

Institute of Education Sciences (IES)

National Assessment of Educational Progress (NAEP)

This report was generated using the NAEP Data Explorer. http://nces.ed.gov/nationsreportcard/naepdata/

Report 1: Table

Percentages at each achievement level for mathematics, grade 8, by year, jurisdiction, and All students [TOTAL]: 2003, 2005, 2007, and 2009

		All students			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	27.38	39.54	25.89	7.19
2007	Illinois	29.70	39.52	23.81	6.98
2005	Illinois	31.70	39.72	23.17	5.41
2003	Illinois	33.53	37.22	23.35	5.89

NOTE: Detail may not sum to totals because of rounding.
Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, 2007, and 2009 Mathematics Assessments.

Report 2: Table

Percentages at each achievement level for mathematics, grade 8, by year, jurisdiction, and Natl School Lunch Prog eligibility (3 categories) [SLUNCH3]: 2003, 2005, 2007, and 2009

		Eligible			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	46.95	38.59	12.77	1.69
2007	Illinois	48.72	38.37	11.34	1.58
2005	Illinois	53.86	36.21	9.23	0.71
2003	Illinois	56.54	33.15	9.39	0.93

		Not eligible			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	15.08	40.14	34.14	10.65
2007	Illinois	17.36	40.27	31.89	10.48
2005	Illinois	18.03	41.81	31.82	8.34
2003	Illinois	18.95	39.97	32.02	9.05

		Info not available			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	‡	‡	‡	‡
2007	Illinois	‡	‡	‡	‡
2005	Illinois	‡	‡	‡	‡
2003	Illinois	43.45	32.41	20.51	3.64

‡ Reporting standards not met.
NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, 2007, and 2009 Mathematics Assessments.

Report 3: Table

Percentages at each achievement level for mathematics, grade 8, by year, jurisdiction, and Race/ethnicity (from school records) [SDRACE]: 2003, 2005, 2007, and 2009

		White			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	14.64	41.57	33.58	10.21
2007	Illinois	18.54	40.62	31.26	9.39
2005	Illinois	18.14	43.25	31.02	7.59
2003	Illinois	19.94	40.04	31.56	8.46

		Black			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	58.57	32.57	8.13	0.73
2007	Illinois	59.30	34.02	6.29	0.39
2005	Illinois	66.12	27.94	5.69	0.25
2003	Illinois	65.53	28.11	5.89	0.47

		Hispanic			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	40.56	42.41	15.91	1.12
2007	Illinois	44.87	42.31	11.81	1.01
2005	Illinois	44.88	41.86	12.24	1.02
2003	Illinois	52.32	38.96	8.32	0.41

		Asian/Pacific Island			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	10.75	29.57	40.65	19.03
2007	Illinois	12.84	32.02	32.11	23.03
2005	Illinois	9.91	39.87	35.37	14.85
2003	Illinois	11.17	30.45	43.14	15.24

		American Indian			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	‡	‡	‡	‡
2007	Illinois	‡	‡	‡	‡
2005	Illinois	‡	‡	‡	‡
2003	Illinois	‡	‡	‡	‡

		Unclassified			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	‡	‡	‡	‡
2007	Illinois	‡	‡	‡	‡
2005	Illinois	‡	‡	‡	‡
2003	Illinois	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

NOTE: Black includes African American, Hispanic includes Latino, Pacific Islander includes Native Hawaiian, and American Indian includes Alaska Native.

Race categories exclude Hispanic origin unless specified. Detail may not sum to totals because of rounding.

Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, 2007, and 2009 Mathematics Assessments.

Report 4: Table

Percentages at each achievement level for mathematics, grade 8, by year, jurisdiction, and Student classified as English Language Learner (2 categories) [LEP]: 2003, 2005, 2007, and 2009

		ELL			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	68.29	24.32	7.14	0.25
2007	Illinois	56.32	31.64	9.05	2.98
2005	Illinois	69.61	21.93	5.51	2.96
2003	Illinois	79.88	16.39	3.73	0.00

		Not ELL			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	26.22	39.98	26.42	7.39
2007	Illinois	28.85	39.77	24.28	7.10
2005	Illinois	30.94	40.08	23.52	5.46
2003	Illinois	31.47	38.17	24.21	6.16

Rounds to zero.

NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, 2007, and 2009 Mathematics Assessments.

Report 5: Table

Percentages at each achievement level for mathematics, grade 8, by year, jurisdiction, and Student classified as having a disability, excluding 504 [IEP2009]: 2003, 2005, 2007, and 2009

		SD			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	63.89	28.90	6.44	0.77
2007	Illinois	—	—	—	—
2005	Illinois	—	—	—	—
2003	Illinois	—	—	—	—

		Not SD (including 504)			
Year	**Jurisdiction**	Below basic	At basic	At proficient	At advanced
2009	Illinois	22.98	40.83	28.23	7.96
2007	Illinois	—	—	—	—
2005	Illinois	—	—	—	—
2003	Illinois	—	—	—	—

— Not available.

‡ Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding. Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2003, 2005, 2007, and 2009 Mathematics Assessments.

B. ISAT Data

ISAT Data 2003-2009: % Students Meets & Exceeds

Reading		All	Male	Female	White	Black	Hispanic	Asian/Pac. Islander	Native American	Multi-Race.	LEP	Not LEP	Migrant	IEP	Not IEP	Low Income	Not Low Income
2003	Grade 3	62.0	58.8	65.5	76.0	34.7	49.3	82.5	59.0	63.2	38.0	62.3	25.5	32.2	66.7	41.6	75.1
2004	Grade 3	65.0	62.0	68.3	76.9	39.0	55.8	85.3	59.6	71.6	60.5	65.1	50.0	35.6	69.9	46.2	78.3
2005	Grade 3	66.6	64.1	69.3	78.2	41.2	55.6	84.1	70.4	68.7	58.0	66.7	56.5	38.6	71.3	48.3	79.6
2006	Grade 3	70.7	66.5	75.1	80.4	48.4	62.2	87.9	74.5	68.3	66.3	70.7	56.8	39.8	75.8	54.2	82.4
2007	Grade 3	73.0	68.7	77.4	82.4	50.5	65.7	89.8	78.9	72.8	66.8	73.0	67.1	42.9	77.9	57.2	84.3
2008	Grade 3	71.7	67.7	76.0	83.6	55.3	55.2	87.2	75.6	75.3	42.5	75.7	59.6	42.8	76.1	56.8	84.9
2009	Grade 3	72.2	68.6	75.9	83.9	56.9	54.9	87.7	77.1	77.2	43.4	76.4	61.9	41.7	76.7	57.6	85.8
2006	Grade 4	72.9	68.3	77.7	81.8	50.0	68.2	88.8	79.6	73.4	63.8	73.0	66.0	39.7	78.6	58.0	83.6
2007	Grade 4	73.7	70.6	76.9	82.5	50.3	68.5	90.6	71.2	73.3	77.7	73.6	61.7	41.1	79.3	58.0	84.6
2008	Grade 4	73.2	69.7	76.9	83.8	56.2	59.4	87.6	73.6	75.8	38.4	76.6	60.0	41.2	78.3	58.7	85.1
2009	Grade 4	73.6	70.3	77.4	84.5	55.8	60.1	89.3	79.7	76.5	39.3	77.2	53.8	40.4	79.1	59.3	86.7
2003	Grade 5	60.4	58.6	62.3	73.5	35.9	42.2	78.9	64.4	64.6	12.3	62.4	32.7	25.3	66.1	40.0	73.4
2004	Grade 5	60.9	58.8	63.0	71.7	36.6	49.9	79.7	66.3	63.2	49.5	61.3	36.8	24.9	67.1	42.2	73.7
2005	Grade 5	62.8	60.9	64.7	73.6	38.6	54.0	81.8	67.3	64.8	53.1	63.1	30.8	28.7	68.7	45.6	75.3
2006	Grade 5	68.5	64.7	72.4	79.2	42.2	61.7	86.5	74.1	70.0	49.6	68.6	55.1	30.8	74.7	51.4	80.8
2007	Grade 5	69.7	66.0	73.5	79.2	44.6	64.3	87.7	70.4	70.3	65.1	69.8	67.2	33.6	75.7	53.1	81.5
2008	Grade 5	73.5	70.1	77.2	84.7	55.8	58.2	87.6	73.1	76.1	32.5	76.9	50.0	38.5	79.1	58.0	86.0
2009	Grade 5	73.5	70.2	77.1	84.3	55.6	59.8	87.9	79.0	76.3	33.4	76.5	50.0	37.6	79.2	58.6	86.2
2006	Grade 6	72.8	68.2	77.6	83.1	54.2	61.0	89.4	75.6	75.5	32.3	73.5	48.0	33.0	79.3	57.9	84.2
2007	Grade 6	73.4	69.8	77.1	83.4	53.4	62.2	90.6	77.1	76.1	36.6	75.0	61.5	34.2	79.7	57.9	85.0
2008	Grade 6	79.0	75.7	82.6	88.0	63.4	67.9	91.8	80.2	82.6	37.0	81.6	46.2	43.0	84.6	66.3	89.0
2009	Grade 6	79.9	76.8	83.1	88.4	64.9	69.4	92.0	79.8	80.9	41.1	82.2	44.0	43.9	85.4	68.0	89.8
2006	Grade 7	72.0	68.3	75.8	80.8	52.7	63.2	88.8	77.8	72.5	33.3	72.5	67.7	29.6	79.0	57.2	82.3
2007	Grade 7	73.4	69.4	77.6	82.4	54.6	64.4	90.6	78.5	76.1	39.8	74.4	69.8	31.7	80.3	59.0	83.9
2008	Grade 7	77.7	73.8	81.8	85.5	63.7	67.6	91.5	79.6	79.7	34.9	79.7	41.3	38.0	83.8	65.3	87.0
2009	Grade 7	77.5	73.3	81.9	85.6	63.1	66.8	90.5	80.9	79.9	33.7	79.6	53.6	38.3	83.4	65.1	87.2
2003	Grade 8	63.7	58.7	69.0	72.9	45.4	46.9	79.8	54.7	59.6	14.7	64.3	19.5	19.5	71.1	46.0	72.3
2004	Grade 8	67.1	62.5	71.9	76.3	48.3	51.3	81.5	72.0	66.5	28.9	67.6	36.8	24.2	74.6	49.8	76.9
2005	Grade 8	72.7	70.6	74.9	82.2	53.7	59.7	86.8	73.7	73.4	35.0	73.2	64.0	30.9	80.0	56.8	82.9
2006	Grade 8	79.2	75.1	82.4	86.3	63.6	71.1	91.9	80.7	80.2	38.7	79.6	63.3	37.6	85.2	66.8	87.2
2007	Grade 8	81.8	77.6	86.1	87.1	69.8	76.2	93.7	82.3	83.0	52.0	82.3	73.7	40.8	88.6	71.8	88.5
2008	Grade 8	81.4	77.5	85.5	88.2	68.7	73.5	92.5	81.7	84.8	40.4	82.9	54.8	42.4	87.5	70.4	89.4
2009	Grade 8	83.6	80.4	87.0	89.8	70.7	77.4	93.6	82.1	85.1	46.8	85.2	53.6	46.2	89.3	73.6	91.3

ISAT Data 2003-2009: % Students Meets & Exceeds

Math		All	Male	Female	White	Black	Hispanic	Asian/Pac. Islander	Native American	Multi-Race	LEP	Not LEP	Migrant	IEP	Not IEP	Low Income	Not Low Income
2003	Grade 3	75.7	75.5	76.1	88.5	48.8	69.4	93.4	78.6	77.9	57	75.9	48.2	55.1	79	57.8	87.2
2004	Grade 3	79.2	79.1	79.2	89.7	53.7	76.0	94.7	78.4	85.8	79.4	79.2	61.8	59.7	82.4	63.3	90.3
2005	Grade 3	79.2	79.4	79.0	89.1	54.9	74.9	94.0	77.2	81.9	79.7	79.2	62.6	60.1	82.4	64.3	89.9
2006	Grade 3	85.6	85.0	86.2	93.1	66.6	82.7	96.8	86.6	84.4	85.7	85.6	90.9	66.7	88.7	74.3	93.7
2007	Grade 3	86.8	86.3	87.2	93.9	68.1	84.8	97.1	90.5	87.3	84.8	86.8	88.6	70.0	89.5	76.2	94.4
2008	Grade 3	85.1	84.8	85.5	93.6	68.3	78.1	95.9	92.0	87.7	72.9	86.9	90.6	67.8	87.7	75.2	94.0
2009	Grade 3	85.2	85.0	85.5	93.3	69.9	77.7	95.5	87.8	88.0	73.2	87.0	79.5	66.2	88.0	75.9	94.0
2006	Grade 4	84.8	84.1	85.6	92.1	64.3	83.5	96.2	89.5	85.5	80.6	84.8	80.0	62.0	88.7	73.6	92.8
2007	Grade 4	86.4	85.4	87.4	92.7	68.0	85.6	96.7	84.7	85.9	90.1	86.3	91.7	64.5	90.1	76.4	93.3
2008	Grade 4	84.6	83.9	85.3	92.5	69.0	76.8	95.1	84.3	86.6	64.8	86.6	78.9	63.8	87.9	74.6	92.9
2009	Grade 4	85.7	85.0	86.5	92.8	71.0	79.5	95.6	90.3	86.7	68.3	87.5	87.2	64.0	89.2	76.7	93.8
2003	Grade 5	68.3	67.5	69.3	81.3	40.2	55.3	89.0	69.6	71.9	28.9	69.9	45.1	35.2	73.8	49.1	80.6
2004	Grade 5	71.8	70.8	72.8	82.5	44.1	67.0	91.5	75.7	68.8	69.4	71.9	57.9	39.0	77.5	54.2	83.8
2005	Grade 5	73.1	72.1	74.2	83.9	46.3	69.2	92.1	76.9	74.0	70.3	73.2	56.0	41.7	78.6	56.6	85.3
2006	Grade 5	78.6	78.2	79.0	88.1	52.4	76.8	94.4	82.8	79.4	68.1	78.7	69.4	50.3	83.2	64.2	89.0
2007	Grade 5	82.5	81.4	83.7	90.1	60.2	81.6	96.2	80.7	83.0	81.6	82.6	81.3	55.9	86.9	70.6	91.1
2008	Grade 5	81.4	80.3	82.4	89.8	63.1	74.0	94.4	80.9	81.8	58.9	83.2	67.8	54.5	85.6	70.0	90.5
2009	Grade 5	82.4	81.3	83.6	90.3	65.7	75.5	94.1	84.8	83.4	58.2	84.3	68.6	54.8	86.8	72.0	91.4
2006	Grade 6	79.1	77.6	80.6	89.0	56.0	74.7	94.8	83.6	80.4	53.9	79.5	60.0	45.6	84.5	65.5	89.5
2007	Grade 6	81.4	79.8	83.1	89.6	60.8	77.4	96.0	82.8	82.8	62.9	82.3	65.4	49.2	86.6	69.6	90.4
2008	Grade 6	82.6	80.9	84.5	90.9	63.6	77.1	94.8	81.9	84.9	57.9	84.2	67.3	52.0	87.3	71.6	91.4
2009	Grade 6	82.4	80.8	84.1	90.2	65.4	75.9	94.5	81.5	81.9	55.8	84.1	55.6	50.7	87.3	71.9	91.2
2006	Grade 7	76.1	74.6	77.6	85.7	52.4	70.1	93.9	78.6	75.5	45.8	76.5	64.5	36.1	82.7	61.2	86.5
2007	Grade 7	79.4	78.3	80.5	88.1	58.2	75.0	95.2	77.6	80.4	58.0	80.1	73.4	41.9	85.6	66.5	88.8
2008	Grade 7	80.4	79.1	81.8	88.8	59.7	75.4	94.1	81.9	81.8	54.3	81.7	58.7	45.2	85.8	68.4	89.4
2009	Grade 7	82.8	80.8	84.8	90.2	64.7	78.1	94.6	86.4	83.3	56.8	84.1	69.8	47.7	88.1	72.4	91.0
2003	Grade 8	53.1	52.8	53.4	65.7	23.0	35.5	78.8	43.8	46.2	17.7	53.4	22.0	13.0	59.8	30.3	64.1
2004	Grade 8	54.4	53.8	55.1	66.7	24.6	38.7	81.0	55.4	46.4	25.4	54.8	33.3	13.8	61.5	32.4	66.9
2005	Grade 8	54.3	53.9	54.9	67.3	24.9	39.3	82.2	50.8	52.9	25.9	54.7	42.3	15.1	61.2	32.3	68.4
2006	Grade 8	78.2	76.8	79.8	87.0	56.1	72.2	94.6	81.0	78.3	48.6	78.6	83.3	37.7	85.1	64.1	87.4
2007	Grade 8	81.3	79.7	82.9	89.0	61.5	76.8	95.5	78.5	82.5	57.3	81.7	71.4	42.0	87.8	69.0	89.5
2008	Grade 8	80.4	79.2	81.6	88.9	60.9	74.5	93.9	82.2	81.3	52.7	81.5	53.5	43.2	86.1	68.2	89.2
2009	Grade 8	81.7	80.5	83.0	89.3	63.6	76.3	94.0	82.1	82.7	54.4	82.9	53.6	44.7	87.3	70.6	90.2

ISAT Data 2003-2009: % Students Meets & Exceeds

Science		All	Male	Female	White	Black	Hispanic	Asian/Pac. Islander	Native American	Multi-Race	LEP	Not LEP	Migrant	IEP	Not IEP	Low Income	Not Low Income
2003	Grade 4	66.5															
2004	Grade 4	67.8															
2005	Grade 4	71.4	72.6	70.1	85.1	38.7	62.9	87.9	75.1	75.9	65.8	71.5	77.3	55.2	74.2	52.2	84.9
2006	Grade 4	79.8	79.4	80.3	90.9	51.2	74.9	93.0	89.5	81.7	71.3	79.9	75.5	62.7	82.7	64.2	91.0
2007	Grade 4	79.8	79.5	80.0	90.3	51.7	74.8	93.3	82.0	80.6	82.1	79.7	78.3	61.7	82.8	64.2	90.5
2008	Grade 4	76.2	76.0	76.3	89.3	52.9	61.7	88.1	77.8	79.9	43.7	79.4	60.7	58.9	78.9	60.6	89.0
2009	Grade 4	76.8	76.6	77.0	89.3	53.1	63.9	90.0	84.7	80.6	48.0	79.7	66.7	57.5	79.8	62.0	90.0
2003	Grade 7	73.7															
2004	Grade 7	74.4															
2005	Grade 7	74.6	74.9	74.2	86.7	49.2	60.6	90.2	74.0	80.1	39.8	75.5	41.3	44.9	79.6	57.1	86.2
2006	Grade 7	80.9	79.7	82.2	89.6	61.6	73.1	94.0	84.8	81.6	47.2	81.4	71.0	48.7	86.2	68.3	89.7
2007	Grade 7	79.3	79.1	79.5	89.8	57.0	70.2	93.9	85.3	82.5	47.8	80.3	92.1	48.2	84.4	64.9	89.8
2008	Grade 7	79.1	79.4	78.9	89.7	58.8	67.6	91.9	85.9	81.6	38.8	81.2	45.7	49.3	83.7	65.0	89.7
2009	Grade 7	79.5	79.1	79.8	90.0	59.4	67.7	91.8	83.8	81.8	39.3	81.6	64.3	49.3	84.0	65.9	90.1

GAP Reading		Black/ White	Hispanic/ White	LEP/ non-LEP	IEP/ non-IEP	Low/ not Low
2006	Grade 3	32.0	18.2	4.4	36.0	28.2
2007	Grade 3	31.9	16.6	6.2	35.0	27.2
2008	Grade 3	28.3	28.4	33.2	33.3	28.1
2009	Grade 3	26.9	29.0	33.1	34.9	28.2
2006	Grade 4	31.8	13.6	9.2	38.8	25.6
2007	Grade 4	32.3	14.1	-4.1	38.2	26.7
2008	Grade 4	27.6	24.4	38.2	37.2	26.4
2009	Grade 4	28.6	24.3	37.8	38.6	27.4
2006	Grade 5	37.0	17.4	19.1	43.8	29.4
2007	Grade 5	34.3	14.9	4.7	42.0	28.4
2008	Grade 5	28.9	26.5	44.3	40.6	28.0
2009	Grade 5	28.6	24.4	43.2	41.6	27.6
2006	Grade 6	28.9	22.1	41.2	46.3	26.2
2007	Grade 6	30.0	21.2	38.4	45.5	27.0
2008	Grade 6	24.6	20.2	44.6	41.6	22.7
2009	Grade 6	23.5	19.0	41.2	41.5	21.8
2006	Grade 7	28.1	17.6	39.2	49.4	25.1
2007	Grade 7	27.7	18.0	34.6	48.6	24.8
2008	Grade 7	21.8	17.9	44.8	45.7	21.7

GAP Math		Black/ White	Hispanic/ White	LEP/ non-LEP	IEP/ non-IEP	Low/ not Low
2006	Grade 3	26.5	10.4	-0.1	22.0	19.4
2007	Grade 3	25.8	9.1	2.0	19.5	18.1
2008	Grade 3	25.2	15.5	14.0	19.9	18.8
2009	Grade 3	23.4	15.6	13.8	21.8	18.0
2006	Grade 4	27.8	8.6	4.3	26.7	19.2
2007	Grade 4	24.8	7.2	-3.8	25.6	16.9
2008	Grade 4	23.5	15.7	21.8	24.1	18.3
2009	Grade 4	21.8	13.3	19.3	25.2	17.2
2006	Grade 5	35.7	11.3	10.6	32.9	24.9
2007	Grade 5	30.0	8.5	1.0	31.0	20.5
2008	Grade 5	26.7	15.8	24.3	31.1	20.5
2009	Grade 5	24.6	14.7	26.1	31.9	19.4
2006	Grade 6	33.0	14.3	25.6	38.9	24.0
2007	Grade 6	28.8	12.2	19.3	37.5	20.7
2008	Grade 6	27.3	13.8	26.3	35.3	19.8
2009	Grade 6	24.9	14.3	28.3	36.6	19.3
2006	Grade 7	33.4	15.7	30.7	46.5	25.3
2007	Grade 7	29.9	13.1	22.1	43.7	22.3
2008	Grade 7	29.1	13.4	27.5	40.6	21.0

ISAT Data 2003-2009: % Students Meets & Exceeds

2009	Grade 7	22.4	18.8	45.9	45.2	22.2	2009	Grade 7	25.5	12.1	27.3	40.4	18.6
2006	Grade 8	22.7	15.2	40.9	48.6	20.4	2006	Grade 8	30.9	14.7	29.9	47.4	23.4
2007	Grade 8	17.3	10.9	30.3	47.9	16.6	2007	Grade 8	27.5	12.2	24.4	45.8	20.5
2008	Grade 8	19.5	14.7	42.5	45.1	19.0	2008	Grade 8	28.0	14.4	28.7	42.9	20.9
2009	Grade 8	19.1	12.4	38.4	43.1	17.7	2009	Grade 8	25.7	13.0	28.5	42.6	19.6

Reading		All	Male	Female	White	Black	Hispanic	Asian/Pac. Islander	Native American	Multi-Race.	LEP	Not LEP	Migrant	IEP	Not IEP	Low Income	Not Low Income
2006	Grade3-8	72.7	68.8	76.9	82.0	51.9	64.6	88.9	77.1	72.9	42.5	73.1	59.8	35.0	79.0	57.6	83.5
2007	Grade3-8	74.2	70.4	78.2	82.9	54.1	66.8	90.5	76.6	74.8	50.9	74.8	66.6	37.2	80.3	59.6	84.7
2008	Grade3-8	76.2	72.5	80.1	85.7	60.7	63.4	89.7	77.3	78.6	38.1	79.0	52.1	41.0	81.6	62.5	87.0
2009	Grade3-8	76.8	73.3	80.4	86.1	61.3	64.5	90.1	79.8	79.0	39.9	79.6	53.7	41.4	82.2	63.6	87.9

Math		All	Male	Female	White	Black	Hispanic	Asian/Pac. Islander	Native American	Multi-Race	LEP	Not LEP	Migrant	IEP	Not IEP	Low Income	Not Low Income
2006	Grade3-8	80.2	79.2	81.3	89.1	57.8	76.0	95.1	83.4	81.0	59.0	80.5	76.0	49.2	85.4	66.9	89.7
2007	Grade3-8	82.8	81.7	84.0	90.5	62.7	79.5	96.1	82.3	83.9	69.0	83.2	78.6	53.4	87.7	71.2	91.1
2008	Grade3-8	82.4	81.3	83.5	90.7	64.0	76.0	94.7	83.8	84.3	62.8	83.9	70.3	54.3	86.7	71.4	91.1
2009	Grade3-8	83.4	82.2	84.6	91.0	66.7	77.2	94.7	85.5	84.6	63.9	84.9	70.8	54.6	87.8	73.3	91.9

Science		All	Male	Female	White	Black	Hispanic	Asian/Pac. Islander	Native American	Multi-Race	LEP	Not LEP	Migrant	IEP	Not IEP	Low Income	Not Low Income
2006	Grade4,7	80.4	79.6	81.3	90.2	56.6	73.9	93.5	86.9	81.7	55.0	80.7	73.8	55.4	84.6	66.3	90.3
2007	Grade4,7	79.5	79.3	79.8	90.0	54.5	72.1	93.6	83.7	81.4	58.8	80.0	65.4	54.6	83.7	64.6	90.1
2008	Grade4,7	77.7	77.7	77.6	89.5	56.0	64.6	90.0	82.0	80.7	42.0	80.3	53.9	54.1	81.3	62.7	89.4
2009	Grade4,7	78.1	77.9	78.4	89.7	56.3	65.8	90.9	84.3	81.1	44.9	80.7	65.4	53.4	82.0	63.9	90.1

GAP Reading		Black/ White	Hispanic/ White	LEP/ non-LEP	IEP/ non-IEP	Low/ not Low
2006	Grade3-8	30.1	17.4	30.6	44.0	25.8
2007	Grade3-8	28.8	16.0	24.0	43.1	25.1
2008	Grade3-8	25.0	22.2	40.9	40.6	24.5
2009	Grade3-8	24.8	21.6	39.7	40.9	24.3

GAP Math		Black/ White	Hispanic/ White	LEP/ non-LEP	IEP/ non-IEP	Low/ not Low
2006	Grade3-8	31.2	13.1	21.4	36.2	22.8
2007	Grade3-8	27.8	11.0	14.2	34.3	19.9
2008	Grade3-8	26.7	14.7	21.1	32.4	19.7
2009	Grade3-8	24.3	13.8	21.1	33.1	18.6

C. PSAE Data

PSAE Data 2003 - 2009: % Students Meets & Exceeds

Reading		All	Male	Female	White	Black	Hispanic	Asian/ Pac. Island	Native American	Multi-Race.	LEP	Not LEP	Migrant	IEP	Not IEP	Low Income	Not Low Income
2003	Grade 11	56.4	52.8	60	64.6	31.1	34.3	65.2	51.2	50.7	16.2	56.8	17.9	15.3	60.9	31.8	62.7
2004	Grade 11	56.8	53.7	59.8	65.3	31.8	34.4	65	52.5	50.5	12.8	57.2	14.3	16.1	61.4	32.6	64
2005	Grade 11	59.5	55.9	63.1	67.8	35.1	40.2	71	56.5	56.3	17.3	59.8	28.6	15.9	64.7	37.4	66.8
2006	Grade 11	58.4	55.7	61.1	67.1	33.3	38.5	72.8	53.8	58.5	20.4	58.6	23.5	17.5	63.5	35.1	66.6
2007	Grade 11	54.1	51.1	56.9	63.5	28.0	33.0	67.7	55.6	52.7	26.9	54.4	29.0	18.3	58.5	31.4	62.5
2008	Grade 11	53.3	51.2	55.3	64.7	24.9	30.9	63.9	49.8	54.4	7.7	54.3	33.3	18.8	57.5	28.5	63.4
2009	Grade 11	56.9	54.6	59.2	68.5	28.0	36.5	68.7	60.6	61.2	8.1	58.0	27.8	16.8	61.8	33.2	67.9

Math		All	Male	Female	White	Black	Hispanic	Asian/ Pac. Island	Native American	Multi-Race.	LEP	Not LEP	Migrant	IEP	Not IEP	Low Income	Not Low Income
2003	Grade 11	53.3	56	50.7	62.6	20.5	29.4	73.7	47.1	46.8	24.2	53.6	10.7	12.8	57.7	25	60.5
2004	Grade 11	53.1	55.1	51.2	62.4	20.5	30.7	75	44.4	45.1	26.3	53.4	35.7	12.2	57.7	25.4	61.3
2005	Grade 11	52.8	54.5	51.1	63.1	18.6	30.8	75.7	51.1	47.8	25.8	53	21.4	12.5	57.6	25.5	61.7
2006	Grade 11	53.6	56.1	51.3	63.6	20.8	33.5	76.7	49.2	49.9	29.7	53.8	17.6	13.1	58.6	27.6	62.8
2007	Grade 11	52.7	55.6	50.0	63.1	19.4	33.0	75.7	55.6	47.1	32.3	53.0	25.8	14.4	57.6	27.2	62.2
2008	Grade 11	53.0	55.4	50.6	64.1	20.6	32.6	77.4	48.2	52.3	19.5	53.7	30.0	13.3	57.9	27.5	63.4
2009	Grade 11	51.6	54.3	49.1	63.4	18.6	31.6	75.8	47.8	52.0	17.7	52.4	8.3	12.1	56.5	26.3	63.4

Science		All	Male	Female	White	Black	Hispanic	Asian/ Pac. Island	Native American	Multi-Race.	LEP	Not LEP	Migrant	IEP	Not IEP	Low Income	Not Low Income
2003	Grade 11	51.3	54.4	48.3	61.4	17.3	25.8	65.5	49	44.6	16.5	51.6	14.3	13.1	55.4	21.3	58.9
2004	Grade 11	52.9	55.3	50.5	62.7	20.1	29.2	70	49	45.1	16.3	53.2	21.4	13.2	57.4	24.4	61.4
2005	Grade 11	52.5	54.7	50.3	63.4	18.5	28.6	69.6	51.7	51	15.9	52.8	14.3	13	57.2	24.4	61.7
2006	Grade 11	50.8	54.9	46.8	61.7	17.3	27.6	68.8	46.2	46.7	19.4	50.9	11.8	12.6	55.4	23.0	60.5
2007	Grade 11	51.0	53.8	48.3	61.9	18.9	28.2	70.6	51.5	48.2	29.3	51.3	29.0	14.0	55.7	24.8	60.7
2008	Grade 11	51.2	54.3	48.2	63.5	18.4	27.6	70.3	49.0	50.5	8.9	52.1	30.0	13.4	55.9	23.8	62.4
2009	Grade 11	50.5	54.0	47.1	63.4	17.2	27.6	67.7	52.6	52.8	8.2	51.4	5.6	13.9	55.0	23.9	62.8

D. High School Graduation Data

High School Graduation Rates: 2003 - 2009

YEAR	Total	Male	Female	White	Black	Hispanic	Asian	Native American	MultiRacial	LEP	Migrant	IEP	Low Income
2002-03	86.0	83.8	88.3	91.0	73.3	75.5	92.5	77.8	NA	64.5	63.3	71.5	69.9
2003-04	86.6	84.3	88.8	91.8	74.0	75.9	91.9	76.6	87.9	57.9	25.0	75.8	71.1
2004-05	87.4	85.4	89.4	92.2	77.6	76.0	93.4	86.0	90.2	62.8	75.6	76.1	75.8
2005-06	87.6	85.4	89.8	92.3	78.0	76.4	94.1	80.5	88.2	63.2	41.7	77.0	76.2
2006-07	85.9	83.1	88.8	92.2	73.8	73.4	93.5	72.5	83.0	69.1	51.5	71.9	74.9
2007-08	86.5	84.2	88.8	92.5	74.9	75.7	93.4	75.3	87.6	57.2	36.4	81.2	78.2
2008-09	87.1	84.5	89.7	92.3	76.7	76.8	94.0	79.4	88.9	63.1	27.8	78.1	76.6

Appendix B3-1

State Response to Intervention Supports

Introduced in January 2008, RtI is a general education initiative involving a fluid model of response to interventions of varying intensity to meet individual student needs. The State Board has adopted the Illinois State Response to Intervention (RtI) Plan and developed a district RtI self-assessment template. All districts were required by law to develop a plan by January 1, 2009 for the transition to use of an RtI-based evaluation and instructional process. 23 Ill. Adm. Code 226. Full implementation of RtI is expected by the 2010-2011 school year.

The Illinois RtI approach includes a three-tier model of support. Tier 1 is the foundation and consists of scientific, research-based core instructional and behavioral methodologies, practices, and supports designed for all students in the general curriculum. At Tier 2, supplemental instruction and interventions are provided in addition to core instruction to those students for whom data suggest additional instructional support is warranted. Tier 3 consists of intensive instructional interventions provided in additional to core instruction wit the goal of increasing an individual student's rate of progress. RtI contemplates frequent monitoring of instructional and behavioral goals, and the use of data derived from monitoring to inform instructional strategies.

The RtI Plan is integrated with the District Improvement Plan (DIP). As part of their district improvement planning process, all districts must:

- Review data relevant to the RtI plan
- Develop an RtI objective
- Develop RtI-related Student Strategies Activities, Professional Development Strategies and Activities, Parent Involvement Strategies and Activities, and Monitoring Process

This school year, Illinois will expand RtI district support through development of thirteen new training modules, including both a face-to-face training format and an online format, covering the following areas:

- Overview and Use of Three-Tier Instruction and Intervention Model to Support Improved Student Performance
- Leadership Skills for Improved Student Performance
- Parental Involvement for Improved Student Performance
- Culturally and Linguistically Diverse Learners and Improved Student Achievement
- Data-based Decision Making to Support Improved Student Performance
- Scientific, Research-Based Assessment for Universal Screening and Progress Monitoring
- Scientifically-Based Instruction and Interventions
- Determining and Designing Effective Intervention in Literacy (K-3)
- Determining and Designing Effective Intervention in Literacy (4-8)
- Determining and Designing Effective Intervention in Literacy (9-12)
- Determining and Designing Effective Intervention in Mathematics (K-3)

- Determining and Designing Effective Intervention in Mathematics (4-8)
- Determining and Designing Effective Intervention in Mathematics (9-12)

Illinois training in 2009-2010 will focus upon the implementation of the expanded thirteen RtI professional development modules through a regional system of both face-to-face and online delivery to all schools. In 2010, ISBE will be applying for another multi-year federal State Personnel Development Grant (SPDG) and plans to align the new grant project with the state's Integrated System for Student Achievement under the federally-funded national project State Implementation of Scaling-up of Evidence-based Practices (SISEP). If funded, current plans call for the new SPDG project to include support for district implementation of a multi-tiered instruction, intervention and assessment process through continued implementation of the new training modules and an expansion of the external coaching component discussed above.

Illinois ASPIRE

As part of its early efforts to support RtI implementation, in February 2006 ISBE launched Illinois ASPIRE (Alliance for School-based Problem-solving and Intervention Resources in Education), under a five-year State Personnel Development Grant awarded by the U.S. Department of Education. The project consists of four regional centers—one in the City of Chicago and one each in the northern, central, and southern parts of the State. All regional Illinois ASPIRE Centers provide standardized professional development and technical assistance to educators and parents in their regions. Professional development and technical assistance are focused on a multi-tiered system of instruction, intervention and assessment, including RtI. There is a particular emphasis on K-3 reading instruction that is scientifically research-based, although the project recently expanded beyond grade 3 to the high school level.

Since the beginning of the project in Fall 2006, the regional project directors and coordinators have worked directly with 63 schools in 40 districts across the state. This work has included provision of onsite technical assistance to school and district teams (including guidance in the development of district RtI plans), facilitation of regional networking meetings for school and district coaches, organization of school site visits, and delivery of small and large scale training utilizing a series of eight project-developed training modules.

Because research shows that coaching has the greatest impact on teacher application of new knowledge and skills in the classroom, in 2008-09 Illinois ASPIRE added a coaching-of-coaches component through which 80 external coaches are being trained and supported by the ASPIRE regional staff. The external coaches are currently working with districts in their areas to support internal district and building level coaches and teams in the implementation of RtI.

Appendix B3-2

Illinois High School Reform Context and Momentum

Over the last three years, practitioners from throughout the state have engaged in strategic planning activities spearheaded by the three state education agencies, the Illinois State Board of Education (ISBE), the Illinois Community College Board (ICCB), and the Illinois Board of Higher Education (IBHE). Over 300 individuals representing education, employers, labor unions, professional associations, and others in local communities were involved in regional meetings to envision new forms of education that can assist students to complete high school ready to transition to college and careers. The ISBE, ICCB, IBHE, and numerous other agencies are engaging Partnerships for College and Career Success (PCCS) throughout the state that include K-12 schools, community colleges, universities, and employers in grassroots implementation of new Programs of Study that integrate rigorous curricula and experiential approaches to learning. Local PCCSs throughout the state have engaged in a self-assessment process to determine assets and opportunities for improvement and to lead conversations with local constituents about curriculum reform. These dialogues center on ways high schools can better partner with community colleges, universities and employers to adopt Programs of Study that integrate rigorous academics with career and technical education to enhance learning. Illinois views reformed high school education as a primary means of providing students with new pathways to college and careers.

Illinois' vision of Programs of Study offers rigorous, integrated academic, career and technical education that is aligned with and reinforced by the new Common Core College and Career Readiness Standards, the American Diploma Project (ADP), the Building 21st Century Skills initiative, and other reforms such as High Schools That Work (HSTW) of the Southern Regional Education Board (SREB), Project Lead the Way (PTLW), New Tech High Schools, and career academies associated with National Academy Foundation (NAF). In 2008, Illinois adopted a framework for implementation and evaluation of Programs of Study that provides six guiding principles geared to creating career pathways that extend from the high school to the postsecondary level and employment so all students have the opportunity to transition to college and careers. The guiding principles grew out of the aforementioned dialogue, and they captured the state's collective vision and aspiration for educational reform at the high school and postsecondary levels and in larger workforce training and education arena.

Illinois' six guiding principles for Programs of Study have been disseminated widely throughout the state, through print documents, websites (see, for example, the ICCB website link: and the Office of Community College Research and Leadership (OCCRL), University of Illinois, link at: occrl.illinois.edu), and professional development activities. An important aspect of the dissemination strategy involves the use of workgroups dedicated to each guiding principle, to gather input, refine core concepts, and consider implementation challenges. Nearly 100 practitioners representing the K-12 and postsecondary levels participated in these conversations, and several educational leaders identified through this process contributed to webinars conducted by OCCRL on each guiding principle. The webinars were conducted between January and June 2009 (one webinar was conducted per month), and, in addition, the state's Forum on Excellence

meeting (sponsored by the ICCB and conducted by Illinois Center for Specialized Professional Services (ICSPS) at Illinois State University) featured Programs of Study in the September 2009.

In addition to the above activities, two state-level groups were formed in FY08 to provide leadership for Programs of Study. One state leadership group includes the chief academic officers of the ISBE and ICCB, along with other state agency leaders, and the second group includes all agency personnel affiliated with the ISBE and ICCB who have responsibility for implementation of academic and/or career-technical education programs as well as professional development. This Programs of Study Planning Team includes approximately 30 agency officials, plus personnel of OCCRL and ICSPS to support implementation of Programs of Study statewide.

The six guiding principles adopted by the state to implement Programs of Study are:

7. Programs of Study are developed, supported and led with guidance from collaborative partners.
8. Each and every student has access to educational opportunities and services that enable their success.
9. Education and training providers, with input from business and industry, enhance alignment that facilitates student preparation and transition through the educational pipeline.
10. Curriculum and pedagogy involve rigorous and relevant instruction that enhances learning and enables students to attain academic and technical standards and credentials.
11. Comprehensive and continuous professional development that impacts teaching and learning is delivered to enhance the recruitment, preparation and retention of qualified instructional and administrative staff.
12. Data are collected, shared, and utilized to improve outcomes and demonstrate accountability.

These guiding principles are employed by local Partnerships for College and Career Success (PCCS) involving high schools, community colleges, universities, employers, and other partners to implement Programs of Study. The guiding principles foster systematic thinking at all levels of education, including and importantly at the high school level. Much more than a name change, these Partnerships reflect the state's commitment to coordinating state and local efforts and supporting the transition of high school graduates to the postsecondary level ready to learn and acquire high wage, high skill, and high demand jobs. Illinois requires that these Partnerships involve a broad base group of constituents to support student success, including high schools, area career centers, Education For Employment (EFE) regions, community colleges, universities, employer, labor, and other groups.

The guiding principles reflect untold hours of conversation with practitioners, and they are based on empirical research and promising practices known to create positive educational outcomes. The guiding principles are consistent with federal No Child Left Behind Act and the Carl D. Perkins Act laws, as well Title I and Title II of the Workforce Investment Act. As mentioned above, the guiding principles align with High Schools That Work (HSTW), Project Lead the Way (PTLW), New Tech High Schools, career academies supported by the National Academy Foundation (NAF), the Illinois Innovation Talent Project, and other standards-oriented

initiatives adopted by the state of Illinois, including the American Diploma Project (ADP) and Building 21st Century Skills. The principles are consistent with various postsecondary, workforce and economic development initiatives, including Illinois' Critical Skills Shortage Initiative (CSSI), the Shifting Gears Initiative, and numerous others. Most importantly, the guiding principles have been reviewed and vetted with leaders of these initiatives and they have received their endorsement and been integrated into complimentary initiatives.

From the beginning Illinois' guiding principles of Programs of Study were developed with an eye toward high school reform. A roadmap for development of Illinois' Programs of Study was a set of recommendations developed by the National High School Center. Illinois' guiding principles were inspired by and cross-walked with the high school reform design principles of the National High School Center, ensuring the same comprehensive approach to high school reform that was evident in the National Center's work were evident in Illinois' guiding principles for Programs of Study. As such, Illinois' guiding principles are consistent with enhancing quality and accountability at the high school level, and preparing students for college and careers.

Each of Illinois' guiding principle is accompanied by a set of six to eight design elements that help practitioners understand what they need to do to implement Programs of Study. The full list of guiding principles and design elements appears at the end of this document, and the guiding principles and design elements have also been cross-walked with the proposed High School Reform Design Principles emanating from the International Seminar in Occupational Education and authored by Bob Sheets (October 2009). The High School Reform Design Principles fall under five of the six guiding principles of Programs of Study, as shown in Table 1 (see below). As such, the Illinois Programs of Study framework provides an inclusive, comprehensive roadmap for high school reform.

Table 1. Cross-walk of Illinois' Six Guiding Principles for Programs of Study with High School Reform Design Principles

Illinois' Guiding Principle for Programs of Study	Illinois' Program of Study Design Elements	High School Reform Design Principles
Leadership, Organization and Support - *Programs are developed and supported with input from collaborative partners.*	• Leaders support authentic collaborative partnerships that include secondary and postsecondary education and encourage the active involvement of business and industry and labor organizations; community-based organizations and community members; student organizations; parent organizations; and other organizations and agencies that benefit student transition to college and careers. • Leaders establish and communicate a vision, mission, and goals that are aligned with enabling federal and state policies and important components of the larger educational system. • Leaders encourage individuals at all levels to engage in shared decision making, encouraging the	

Illinois' Guiding Principle for Programs of Study	Illinois' Program of Study Design Elements	High School Reform Design Principles
	perspective of individuals and groups not always active in curriculum reform and organizational change. • Leaders nurture a collaborative culture of respect, high expectations, and demonstrable student outcomes and benefits for partners. • Leaders formalize genuine collaborative partnerships, including the roles and responsibility of member entities and create a formal memorandum of understanding to ensure clarity and accountability. • Leaders encourage the planning, implementation and evaluation of Programs of Study that are guided by active, joint secondary-postsecondary advisory committees. • Leaders encourage that resources including personnel, fiscal, curriculum, physical, and technology are adequate and distributed appropriately among partners. • Leaders encourage that partners receive technical assistance and technology assistance to support Program of Study implementation and continuous improvement.	
Access, Equity and Opportunity - *Each and every student has access to educational opportunities and services that enable their success.*	• Various strategies are used to recruit, enroll, and retain students, including students who are underserved, under-represented, and from special populations. • Processes are in place to identify and overcome gaps and barriers for learners to foster access to education and inclusion in educational programs, including flexible time and location of programs. • Processes are in place to assist students to overcome barriers to initial entry or re-entry into secondary and postsecondary education. • Appropriate support services are available to promote student success, help students become college and career ready, and meet their educational goals. • The physical, virtual, and learning spaces of programs and support services are universally designed to promote state-wide access to education and successful transition. • Special population sub-groups are clearly identified so that their progress and success can be quantified and compared with other populations. • Programs and support services reflect learners' and their families' perspectives and interests in education and transition while addressing changes	• Personalized Tutoring and Support Services

Illinois' Guiding Principle for Programs of Study	Illinois' Program of Study Design Elements	High School Reform Design Principles
	in resources and family roles across settings. • Students have access to networks and resources, including adult mentors from the employment community, to assist with curriculum, career exploration, and work-based learning.	
Alignment and Transition - *Education and training providers, with input from business and industry, enhance alignment that facilitates student transition through the educational pipeline.*	• Non-duplicative curriculum is ensured through secondary and postsecondary collaboration for greater efficiency and alignment. • Course content and credit are aligned through articulation agreements which lead to industry recognized credentials and/or certification. • Curriculum is aligned with relevant educational, state, and industry standards and certifications. • Programs are designed with multiple entry and exit points to high-skill, high-wage, or high-demand occupations and encourage stackable credentials. • Programs include development of a coherent sequence of courses and programs that may lead to the baccalaureate degree. • Data-sharing agreements are developed for program improvement, program reporting, and the evaluation of student transition across educational levels to provide necessary support services and ensure student success. • Programs provide students with multiple opportunities to build and/or increase their "college knowledge" in order to make informed decisions about educational and occupational options.	• Transition to Postsecondary Education
Enhanced Curriculum and Instruction - *Curriculum and pedagogy involve rigorous and relevant instruction, and career development that enhances learning and enables students to attain credentials.*	• Programs infuse career exploration, development and guidance throughout the educational system. • Programs strongly encourage dual credit opportunities in academic and career and technical courses to accelerate student learning and encourage transition to and success in college-level occupational programs. • Programs involve business, industry and community partners to provide relevant instructional opportunities (e.g. work-based learning, access to current technology, mentoring and leadership development, cross-cluster projects). • Programs' cluster-level orientation courses have a rigorous foundation of academic and career-technical content that prepares students for more advanced course work. • Curriculum and pedagogy are designed to ensure the rigor and support services necessary to reduce the need for remedial/developmental education. • Programs include multiple measures of assessment	• Career and Education Guidance • Academic Core Curriculum with Optional Programs of Study • Academic Integration and Application Within Programs of Study • Real-World Connections with External Partners

Illinois' Guiding Principle for Programs of Study	Illinois' Program of Study Design Elements	High School Reform Design Principles
	designed for diverse learning styles and accurately determine acquisition of academic and technical knowledge and skills. • Programs develop, improve or expand the use of technology to foster students' technical skills and reach more learners.	
Professional Preparation and Development - *Teacher preparation, recruitment and selection of qualified instructional staff, and the delivery of quality professional development.*	• Professional development activities are coordinated with teacher certification or licensing, in-service and pre-service learning, other related professional development activities, or current local reform initiatives and school improvement plans. • Professional development activities are high-quality, sustained, intensive, comprehensive, and instruction-focused in order to have an impact on classroom instruction. • Professional development is designed to help all partners and stakeholders improve the quality of instruction in order to impact student achievement and meet the state annual adjusted level of performance (AALP). • Local leaders conduct needs assessments prior to designing professional development and involve stakeholders and partners in collaborative planning. • Professional development combines resources with other regions and organizations to maximize resources. • Professional development includes the sharing of best or promising practices based on scientifically-based research and data that demonstrate program effectiveness. • Professional development includes opportunities for secondary and postsecondary educators to collaborate to encourage curriculum alignment and integration.	• Teacher Preparation, Qualifications and Support
Accountability and Program Improvement - *Data are collected and shared to demonstrate accountability, program improvement and student outcomes.*	• All programmatic activities, including professional development are evaluated for improvement and accountability using multiple forms of assessment and measurement. • Data are used to inform a culture of program improvement that uses data to improve instruction and programs. • Data are used within the organization and shared with partners to foster local improvement and regional development. • Relevant labor market data are used to inform program development and implementation. • A data collection system is developed with the capacity to collect longitudinal data on core	• Continuous Improvement

Illinois' Guiding Principle for Programs of Study	Illinois' Program of Study Design Elements	High School Reform Design Principles
	indicators, performance measures, and workforce placement. • Procedures are implemented to collect reliable and valid data at each educational level and point of data collection. • Partnerships set specific performance targets and establish measureable goals for participant outcomes based on state adjusted level of performance on each indicator and are responsible for meeting those targets or providing plans of improvement. • Collected data are disaggregated and cohort based to provide gap analysis on different student groups for purposes of equity.	

Appendix B3-3

STEM Application Areas

1. Agriculture and Natural Resources: development, production, processing, distribution, of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources;

2. Energy: developing, planning and managing the production of energy including renewable energy and clean coal technology and its distribution through smart grid technologies;

3. Manufacturing: product and process development and managing and performing the processing of materials into intermediate or final products and related support activities;

4. Information Technology: designing, developing managing, supporting and integrating hardware and software system;

5. Architecture and Construction: designing, planning, managing, building, and maintaining the built environment including the use of green technologies;

6. Transportation, Distribution and Logistics: planning, management and movement of people, materials and goods across all transportation modes as well as maintaining and improving transportation technologies;

7. Research and Development: scientific research and professional and technical services including laboratory and testing services, and research and development services;

8. Health Sciences: planning, managing and providing therapeutic, diagnostic, health informatics, and support services as well as biomedical research and development; and

9. Financial Services: securities and investments, business finance, accounting, insurance, and banking services.

Appendix B3-4

Blue Wave Project

Creating a Blue Wave in Science Education

A National Project to Bring Computational Science Tools and Capabilities to Students Who Will Shape the Future of Science and Engineering

Computation has transformed science in the past few decades. Scientific computing has opened up new areas of scientific exploration, contributing to our understanding of a broad range of phenomena from the functioning of biological molecules and the decoding of genetic information to the tracking of hurricanes and the evolution of galaxies. The rate of progress promises to accelerate in the next few years, as a new generation of computers, orders of magnitude more powerful than the present computers, are brought on line, beginning with *Blue Waters*, the sustained petascale computer being deployed by the National Center for Supercomputing Applications[7] (NCSA) on the campus of the University of Illinois at Urbana-Champaign in 2011.

Computational modeling, using computational tools similar or even identical to those used by scientists, can also be used to offer students insights into the world around us that is difficult to obtain by any other means. The use of these tools is especially critical when students are learning about objects or processes far too small to be seen, e.g., molecules in chemistry, or processes that are far too slow to be observed, e.g., movement of the earth's crustal plates in geology or the evolution of the universe. In these cases the use of interactive computational tools, which allow the student to change conditions, modify the processes and so on, can give them a deep and rich appreciation for the scientific principles involved.

Background: ICLCS

The Institute for Chemistry Literacy through Computational Science (ICLCS) Project[8] at the University of Illinois at Urbana-Champaign has shown that the use of computational tools, such as those pictured in Figures 1 and 2, to teach basic chemical concepts has the potential to revolutionize the teaching of chemistry in the nation's high schools. Working with teachers from Illinois' rural high schools, this project has shown that the use of computational tools in the classroom is enthusiastically embraced by teachers, results in improved performance of students on standardized chemistry tests, and leads to increased student interest in chemistry.

Figure 1. The caffeine molecule as displayed by JMol, a computational tool that allows students to visualize, analyze and manipulate the structure of molecules in three dimensions.

7 Website: http://www.nsa.illinois.edu/

8 Website: http://www.iclcs.illinois.edu/. The ICLCS is funded through an NSF Math-Science Partnership grant.

Blue Wave Project

Although ICLCS has been a notable success, the computational tools and course materials needed to teach chemistry and other sciences are still not widely available, nor is there a social networking infrastructure to support teachers when they adopt these new tools and create and use materials to systemically revise the high school science curriculum. Furthermore, while the use of these tools has improved performance on existing standardized chemistry tests, these tests may not adequately measure the student's understanding of the subject, nor their ability to analyze and understand new science problems in the subject.

Figure 2. ICLCS students use WebMO to calculate the properties of molecules. Behind the simplified interface offered by WebMO is GAUSSIAN™, a research tool used by chemists worldwide.

The goal of the proposed project, *Creating a Blue Wave in Science Education*, is to:

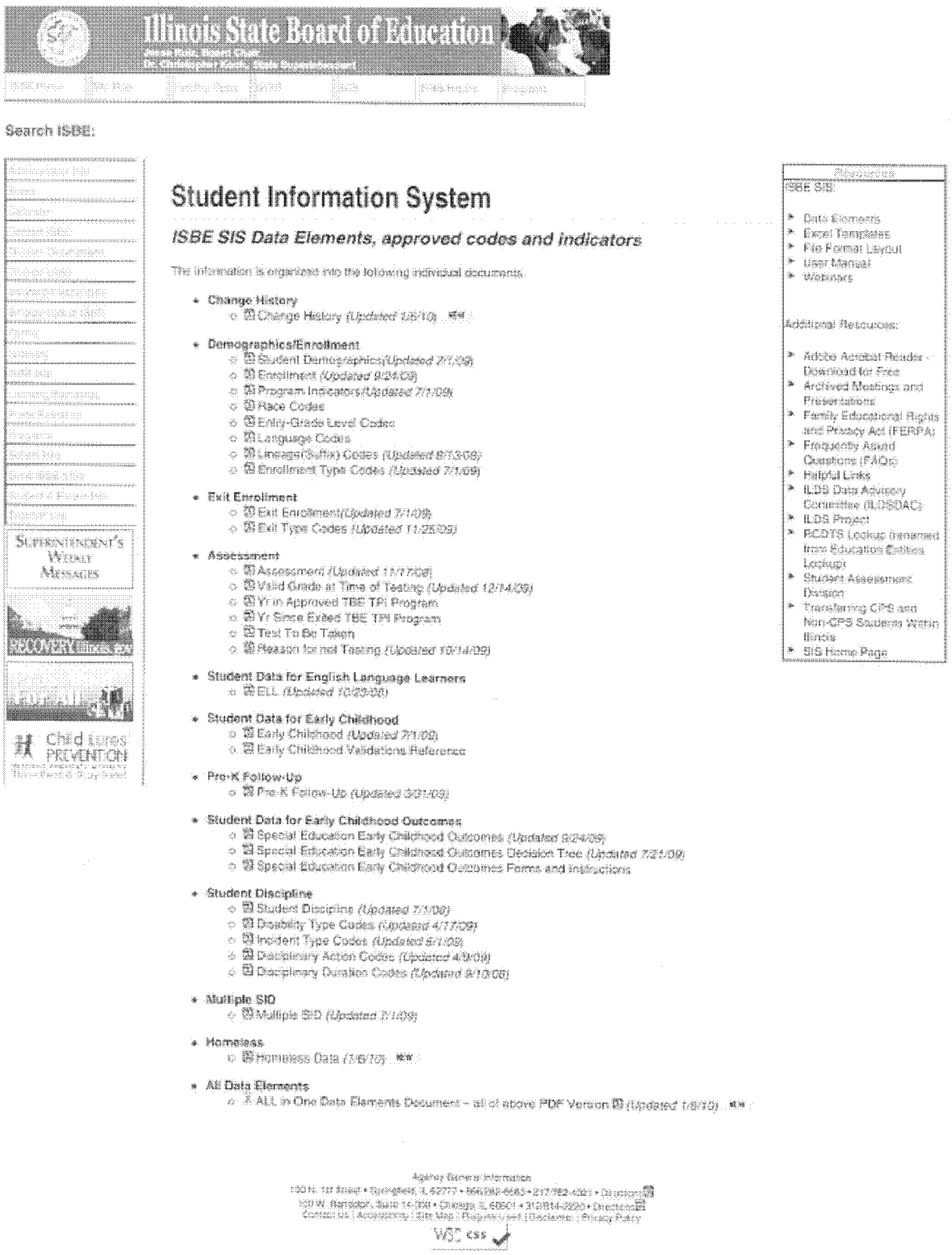
- Develop a comprehensive set of computational tools and course materials to teach the basic concepts of physics, chemistry, biology and earth science in high school.
- Provide an educational computing infrastructure to provide students with the ability to use these computational tools to learn basic scientific concepts, to explore their understanding, and to participate in authentic research experiences.
- Provide a social networking infrastructure to allow teachers to work together to utilize the computational tools and computing infrastructure to revitalize the high school science curriculum.
- Create and test the assessment tools that monitor computational skills and the ability to use those skills in inquiry-based learning.
- Disseminate the computational tools and classroom materials to high schools throughout the nation through the established outreach programs in the specialized secondary schools.

The proposed project, *Creating a Blue Wave in Science Education*, is a partnership of the University of Illinois at Urbana-Champaign and its National Center for Supercomputing Application (NCSA) and the National Consortium of Specialized Secondary Schools of Mathematics, Science and Technology[9] (NCSSSMST). The University of Illinois is one of the nation's premiere public universities and NCSA is a leader in deploying high-performance computing resources and in working with research communities to advance science and engineering. NCSSSMST was established in 1988 to foster, support, and advance the effortof those specialized schools whose primary purpose is to attract and academically prepare students for leadership in mathematics, science, and technology. NCSSSMST has over 100 institutional members, representing more than 39,000 students and 1,600 educators.

9 Web site: http://www.ncsssmst.org/.

Appendix C1-1

ISBE Website: Available Data re America COMPETES Act



Illinois State Board of Education

Search ISBE:

Student Information System

ISBE SIS Data Elements, approved codes and indicators

The information is organized into the following individual documents:

- **Change History**
  - Change History *(Updated 1/8/10)* NEW
- **Demographics/Enrollment**
  - Student Demographics *(Updated 2/1/09)*
  - Enrollment *(Updated 9/24/09)*
  - Program Indicators *(Updated 7/1/09)*
  - Race Codes
  - Entry-Grade Level Codes
  - Language Codes
  - Lineage(Suffix) Codes *(Updated 8/13/08)*
  - Enrollment Type Codes *(Updated 7/1/09)*
- **Exit Enrollment**
  - Exit Enrollment *(Updated 7/1/09)*
  - Exit Type Codes *(Updated 11/25/09)*
- **Assessment**
  - Assessment *(Updated 11/17/09)*
  - Valid Grade at Time of Testing *(Updated 12/14/09)*
  - Yr in Approved TBE TPI Program
  - Yr Since Exited TBE TPI Program
  - Test To Be Taken
  - Reason for not Testing *(Updated 10/14/09)*
- **Student Data for English Language Learners**
  - ELL *(Updated 10/23/08)*
- **Student Data for Early Childhood**
  - Early Childhood *(Updated 7/1/09)*
  - Early Childhood Validations Reference
- **Pre-K Follow-Up**
  - Pre-K Follow-Up *(Updated 3/31/09)*
- **Student Data for Early Childhood Outcomes**
  - Special Education Early Childhood Outcomes *(Updated 9/24/09)*
  - Special Education Early Childhood Outcomes Decision Tree *(Updated 7/21/09)*
  - Special Education Early Childhood Outcomes Forms and Instructions
- **Student Discipline**
  - Student Discipline *(Updated 7/1/09)*
  - Disability Type Codes *(Updated 4/17/09)*
  - Incident Type Codes *(Updated 6/1/09)*
  - Disciplinary Action Codes *(Updated 4/9/09)*
  - Disciplinary Duration Codes *(Updated 9/10/08)*
- **Multiple SID**
  - Multiple SID *(Updated 7/1/09)*
- **Homeless**
  - Homeless Data *(1/8/10)* NEW
- **All Data Elements**
  - ALL in One Data Elements Document – all of above PDF Version *(Updated 1/8/10)* NEW

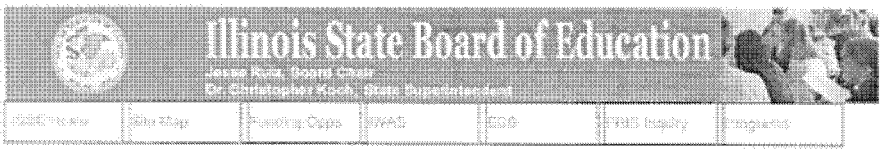
Resources

ISBE SIS:

- Data Elements
- Excel Templates
- File Format Layout
- User Manual
- Webinars

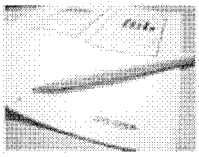
Additional Resources:

- Adobe Acrobat Reader - Download for Free
- Archived Meetings and Presentations
- Family Educational Rights and Privacy Act (FERPA)
- Frequently Asked Questions (FAQs)
- Helpful Links
- ILDS Data Advisory Committee (ILDSDAC)
- ILDS Project
- PCDTS Lookup (renamed from Education Entities Lookup)
- Student Assessment Division
- Transferring CPS and Non-CPS Students Within Illinois
- SIS Home Page



Search ISBE:

Student Assessment



The Assessment Division of the Illinois State Board of Education is responsible for developing and administering tests that measure the performance of students and schools against the Illinois Learning Standards. The state assessment scores are used to measure adequate yearly progress (AYP) for all public schools. All students' scores are part of the AYP measure, including students with disabilities and limited English proficiency.

▸ *Announcements*

- Illinois Longitudinal Data System Data Advisory Committee (ILDSDAC)
- 2009-10 Guidance – PSAE and the Receipt of a Regular High School Diploma *(Posted 09/30/09)*
- Request for a Change in the Two-Week Test Window – 2010 ISAT
- Request for Modified Testing Dates – 2010 ACCESS
- Memorandum: Elimination of the Fall Retake for the PSAE and Exemptions from the PSAE Diploma Requirement *(Posted 08/11/09)*
- 5 Year Work Plan for the Development/Implementation of English Language Learner Assessment for Title 1 Accountability
- Implementation Schedule of Assessment Strategies for ELL's
- Interactive ISAT Multiple-Choice Sample Questions

Note: If a test does not display, a pop-up blocker may be preventing it from opening and you may need to instruct the pop-up blocker to allow access to these tests. If you get "access denied," or "page not found" messages, it may mean that tight security at your school or district is preventing access. Contact your technical support and have them try to access these tests. Contact support@metalogic1.com as needed for assistance.

- EXPLORE/PLAN PROCEDURES AND PROTOCOL and Illinois ACT Online Prep
- Illinois Growth Model Task Force Report
- State Assessment Scale Score Cut Points
  - 2009
  - 2008
  - 2007
  - 2006
  - 2005

Resources

- ACCESS
- AYP
- IAA
- ICEPT
- ISAT
- NAEP
- PSAE
- TIMSS
- ELL Assessment
- ISAT Sample Books
- Join the Student Assessment Listserv
- Illinois Assessment Frameworks
- Illinois Learning Standards
- Illinois Accountability Workbook
- Student Assessment Committees

IL State Assessment

Quick Reference Charts

- 2010 *(Updated 10/16/09)*
- 2009 *(Updated 7/10/09)*
- 2008 *(Updated 11/24/08)*
- 2007 *(Updated 8/4/07)*
- 2006 *(Updated 3/15/06)*
- 2005

Areas to be Tested

- Mathematics
- Reading
- Science
- Writing

General Areas

- Fine Arts
- Physical Development and Health
- Social Science
- Staff
- Assessment Home

Appendix C2-1

Access to State Longitudinal Data

A. Robust Public Reporting of P-20 Data

B. Postsecondary Performance and Accountability Reporting

C. Legal Framework for Data Accessibility

Appendix C2-1

Access to State Longitudinal Data

Illinois will ensure data from the State's longitudinal data system is accessible to, and used to inform and engage key stakeholders, through:

- The enhancement and creation of robust public reporting systems for P-20 data;
- The creation of a legal framework for data accessibility; and
- Establishing the Illinois Collaborative for Education Policy Research (ICEPR) to build state and local capacity to undertake needed policy research and development activities, aligned to this Plan's priority areas.

A. Robust Public Reporting of P-20 Data

The Learning and Performance Management System, described in Section (C)(3), will significantly expand the State's ability to provide robust and relevant reporting tools that can be used to inform and engage key stakeholders and provide relevant data at the district, school, and classroom level. The standard reporting and data access functions of the Learning and Performance Management System will enhance and build off of a number of State reporting tools that are currently available or under development, including the following:

Illinois Interactive Report Card (IIRC): The IIRC, administered by Northern Illinois University through a partnership with ISBE, provides publicly available data on test results and accountability information on all Illinois public schools and students, includes the ISBE web-based school and district improvement planning templates, and provides school districts with access to student-level data for analysis and planning. The student-level reports allow schools to track student performance over time and across multiple assessments, and to connect performance measures to assessment frameworks and learning standards. IIRC has developed a number of evaluation tools permitting analysis of comparative student, school, and district performance. For example, IIRC has developed scatterplot arrays for every school and district allowing educators and parents to see how the school and district performs based on a variety of student or school characteristics, compared to all schools in the State arrayed by the same characteristics.

High School-to-College Success Reports: ISBE, IBHE, ICCB, the Illinois Shared Enrollment and Graduation File, and ACT are in the process of creating a High School-to-College Success report utilizing information from both public 4-year institutions and community colleges and from private institutions who wish to participate. The initial reports are scheduled to be released in Spring 2010. Questions addressed by the charts and tables in the report will include:

- How did fall semester college grade averages for our students compare to those of others statewide and by college?
- Did students who achieve ACT College Readiness Benchmark Scores earn higher freshmen grades?

- How important was rigorous preparation in high school math or high school science for success during the first year of college?
- How did student ACT Composite scores compare to those of enrolled freshman statewide and by college?
- Were students who took the recommended college preparatory coursework more successful during their first-year at college?
- How many students were assigned to developmental coursework, and what were their ACT scores and fall college GPAs?
- How many students persisted into year 2 and enrolled at the same campus as year 1?

Through the Statewide Longitudinal Data Systems (SLDS) Grant program administered by the U.S. Department of Education, Institute of Education Sciences, the state education agencies have requested funding to expand the High School-to-College Success report to include enrollment information for all institutions of higher education throughout the nation, and to disaggregate enrollment and course completion information by subgroup.

B. Postsecondary Performance and Accountability Reporting:

Community College Performance and Accountability Reporting. ICCB will enhance the data reporting provided through its web portal to include publicly accessible information from the community college system performance/accountability reports and data relating to Perkins IV and Tech Prep performance measures. ICCB collaborates with the community colleges in the Illinois Community College System to produce performance/accountability reports that document student and institutional advancement and outcomes. The performance report is an accountability initiative that tracks progress achieved over the past year, identifies emerging challenges, and describes strategies for building and sustaining positive change. The Illinois Community College System engages in an array of initiatives to enhance quality and be accountable to internal and external constituencies and stakeholders. The performance report is one substantial component in a multifaceted approach to accountability among community colleges. Measures have been organized in the following categories: Affordability, Attainment, High Expectations and Quality, Economic Growth, Access and Diversity, and Accountability and Productivity. Currently, Attainment measures are locally generated. Multiple statewide initiatives are under way to strengthen P-20 partnerships, including the College and Career Readiness Pilot Project, Dual Credit and Dual Enrollment, the American Diploma Project, and the High School to College Success/Feedback Report. Through these efforts, more standardized Attainment performance measures will be developed. Publicly accessible data from the performance/accountability reports will provide parents, students, and the general public with useful and transparent performance and accountability information for community college performance at the local level and statewide.

ICCB is also responsible for federal reporting under the postsecondary component of Perkins IV legislation (Core Measures and Tech Prep Measures), which reports to the U.S. Department of Education, Office of Vocational and Adult Education. The ILDS Expansion Project will assist ICCB to increase transparency of federally reported data through the development of complimentary web portals. ICCB will collaborate with ISBE to develop and implement a website for Perkins Tech Prep Consortia and populate it with multiple years of Tech

Prep performance measure results. During FY10 (July 1, 2009, through June 30, 2010), ICCB will develop, test, and launch a website with the new Perkins IV Core Measures by college and measure. In addition, ICCB, in collaboration with ISBE, will develop a similar website for the Tech Prep measures. Tech Prep follows Career and Technical Education students from the secondary level into postsecondary education. The Tech Prep website will have an additional level of complexity since data will be provided by consortia and individual educational entities that contribute to each consortium (secondary and postsecondary institutions).

Higher Education Performance and Accountability Reporting. The existing Illinois higher education student unit record databases were not designed to directly inform the public about higher education performance; they were built to supply data to the colleges and universities that supplied data to them in order to assist the colleges and universities with assessment and accreditation activities and to follow their students' progress if they chose to transfer to other participating institutions. External researchers and agencies have been granted access on a case-by-case basis that includes approval by colleges and universities that supply data to the databases. While valuable and necessary, this focus on serving participating institutions has limited the usefulness of the databases for researchers, practitioners at the K-12 and postsecondary levels, and the public.

IBHE has traditionally built its public information and accountability tools around Integrated Postsecondary Education Data System data and other aggregated, descriptive information collected from colleges and universities. These data are presented in a variety of ways on the IBHE website, but the unit of analysis is always an institution or sector. The tools are well-presented and allow for user customization to some extent (i.e., choice of year, sector, institution, degree program, enrollments or completions, race/ethnicity, and gender), but are still quite limited. For instance, it is not possible to generate a report identifying where Latino students from a specific county or LEA begin their postsecondary education studies and how successful they are at a given college or university. Nor is it possible for the public and policymakers to find information quickly on how students transferring from a given community college to a given university have fared in terms of graduation, or how successful students who receive Pell grants or state financial aid tend to be at a given institution.

The development of online reporting tools through the ILDS Expansion Project will complement existing data book, degree program inventory, institutional profile, discipline cost study, and revenue and expenditure reports available on the IBHE website and increase accountability and utility. To accomplish this, business intelligence software will need to be built on top of underlying, secured databases that do not house personally identifiable student information. When completed, users will be able to customize pre-defined reports or query the data on a numerous variables.

C. Legal Framework for Data Accessibility

Illinois has created the legal framework to ensure that data can be accessible to key stakeholders. The P-20 Longitudinal Education Data System Act provides a statutory framework for the State education agencies to enter into data sharing agreements in accordance with privacy

protection laws with other governmental entities, institutions of higher learning, and research organizations to support research and evaluation activities authorized by the Act. In addition, ISBE, ICCB, IBHE, and the Illinois Shared Enrollment & Graduation File (ISEG), housed at SIU Carbondale, recently executed an intergovernmental data sharing agreement that accomplishes a number of critical objectives for the State. This Agreement:

1. Establishes the data sharing mechanisms necessary to provide an enhanced high school feedback report that will better inform high school educators, education policymakers, and members of the public about students' performance during their first year of postsecondary education;
2. Establishes data sharing mechanisms to provide ISBE's Unique Student Identifier to postsecondary data systems. The data transfers established by this Agreement will supplement ISBE's 2008 rulemaking to add the Unique Student Identifier to high school transcripts, thereby providing multiple mechanisms to ensure this identifier can be used across the P-20 spectrum; and
3. Establishes a framework and streamlined process to allow P-20 data to be made available to outside researchers and organizations.

The intergovernmental data sharing agreement includes a form that any entity seeking to access data from the longitudinal data can submit for consideration by the State education agencies. If the data request is approved, the State education agencies have established a standard data sharing agreement that governs the use of longitudinal data from the system in a manner consistent with privacy protection laws.

Appendix C3-1

Learning and Performance Management Support System Supplemental Materials:

A. LPMS Engagement and Information Gathering

B. Cloud Computing Infrastructure

C. NCSA Overview

D. LPMS Diagram

E. LPMS Data Integration Requirements and Challenges

F. Student Vault

G. LPMS Governance Structure

H. LPMS Procurement and Development: Timelines, Key Activities, and Responsible Parties

A. LPMS Engagement and Information Gathering

As part of the development of the LPMS requirements, ISBE convened a working group of stakeholders from across the State (including district, state, and union representation) who helped to validate the need for a statewide platform and a transformative data solution as part of the RTTT plan. As shown below, this working group discussed the "now" status of local of State and local systems and the "future" vision that should result from the deployment of the LPMS:

Now	Future
▪ Difficult to integrate data across state and local systems.	▪ Integrated set of data elements, sourced from districts and the state.
▪ 870 district-specific software/hardware solutions due to wide local system variance.	▪ Common platform to launch a myriad of applications and innovations, easily customizable.
▪ Multitude of local systems expensive to maintain and update.	▪ Centrally hosted system with updates for all users. District resources can focus on customization and use of data.
▪ State applications and reporting are not integrated into district views.	▪ Districts receive advanced reporting and instructional tools, with integrated state/local data.
▪ Small districts cannot afford to develop and maintain robust systems.	▪ Standard applications and freely available (or low cost) third-party applications so that all districts have access to have high quality information management tools.
▪ Relevant state data accessible to only a limited number of users.	▪ Appropriate, role-based access to relevant data to a broad number of users. Frequent access to data by teachers/administrators provides a "self-cleansing" mechanism.

A key focus of the group was to ensure that teachers receive timely, structured, and relevant access to student data to inform instruction, including:

a. Access to detailed student reports, organized by classroom, on academic performance, attendance history, and services provided.
b. View of classroom data showing integrated views of current and historical high-stakes assessment data alongside interim assessment data.
c. Early warning system reports that provide information on whether individual students are at risk and in need of extra assistance.
d. Readiness reports to identify whether and to what extent each elementary, middle, and high school student is on track for success at the next transition point and prepared for college or the workforce by high school graduation.

The group established a series of guiding principles that were reflected in an earlier iteration of the design requirements provided to vendors for feedback through the Request for Information (RFI) processes:

1. **Meaningful Support for All Districts:** The LPMS must provide benefits and meaningful support for the full range of school districts in Illinois, ranging from large districts with sophisticated existing data systems to small districts with little to no data infrastructure. While districts may rely on the LPMS to varying degrees to address local data needs, all districts should benefit from participation.

2. **Flexible Hosting (Self hosted, vendor hosted, combination):** While the LPMS may be initially hosted by a vendor, ISBE should be able to takeover hosting if necessary or move hosting to another vendor. Some LPMS components may be hosted by a vendor, while other services may be hosted by the State.

3. **Highly Scalable:** The LPMS must be highly scalable. Eventually, the LPMS should be envisioned to be used by every student and teacher everyday, representing millions of users.

4. **"Packaged":** The LPMS must minimize the need to custom-build core system components--as much as possible should be packaged. Customization completed for the LPMS will become part of the core system components. [*Note: The vendor RFI responses recommended relaxing this guiding principle to achieve the proposed vision, and instead reinforce the scalability, low operational costs, and openness requirements.*]

5. **Low Technical Expertise for Districts:** The LPMS must not require extensive technical expertise to access and use the LPMS. However, the LPMS must also permit users with high levels of technical expertise to have access to the full range of functions.

6. **Standards-based**: All data integration, web building, and other LPMS components must be Standards-based, with transparent and open APIs.

7. **Vendor Neutral:** Where appropriate, the LPMS will be vendor neutral. In particular, ongoing development of the LPMS must be possible with multiple vendors regardless of the underlying platforms chosen. Use of a vendor's software platform must not preclude development by other vendors on the LPMS.

8. **Low Ongoing Costs:** The LPMS must have low ongoing costs, including no or minimal licensing costs for software platforms, low maintenance costs, low upgrade costs, and inexpensive development and customization costs.

9. **Product Longevity/Open Source:** All underlying software components will be considered for longevity. In addition, while it is understood that software requires upgrades, the chosen software platforms must impact users minimally (and

inexpensively) when upgrades are necessary. In keeping with the goal of software longevity, open source software will be given priority, with the idea that even if the platform company no longer exists or does not support the software, the open source nature of the platform will allow the State or some other entity to continue platform support. [*Note: The vendor RFI responses to the proposed guiding principles strongly cautioned against overreliance on open source vs. a vendor supported solution, as open source solutions may not result in lower overall costs due to the need for maintenance and enhancements. The State will look to incorporate open-source components whenever off-the-shelf building blocks can be cost-effectively maintained and upgraded. The vendor RFI responses recommended demanding that source code be placed in escrow to address business continuity concerns.*]

10. **Vendor Supported:** Despite the goal of using open source software, the State will also require vendor support. The balance between software that is in the free domain, but also provides for a known entity to provide support and ongoing LPMS development, must be maintained.

An existing Illinois model for a multi-district solution was examined. In Unit District 5 and Bloomington School District 87 [(two Participating LEAs)], the local superintendents worked to create a instructional improvement system (Illini Data) that ensures that all teachers have a clear picture of the students in their classrooms from test scores to special needs to involvement with athletics or clubs. Working with local corporate citizen State Farm, the LEAs built an accessible, user-friendly data interface that teachers are now using to plan and understand student needs and develop targeted lesson plans.

Working Group:

The LPMS Working Group includes the following members. It will continue to meet as necessary to inform the development of the LPMS.

Working Group Member	Organization
Alsop, Amy	Illinois Federation of Teachers
Beever, Scott	Illinois State Board of Education
Bianchini, Sharon	Community Unit School District 220
Boer, Ben	Advance Illinois
Cegelis, Christine	Illinois Century Network
Chamberlain, Terry	Illinois State Board of Education
Chumbley, Bryan	Peoria District 150
Cullen, Marica	Illinois State Board of Education

DeWitt, Vicki	Director, Area 5 Learning Technology Center
Drone, Mark	Regional Superintendent, Fayette, and Effingham Counties
Evans, John	University of Illinois
Frank, Larry	Illinois Education Association
Furr, Jonathan	Holland and Knight
Hopper, Gina	Illinois State Board of Education
Loveless, Abe	Belleville Township High School District 201
Montoya, Abel	Illinois Student Assistance Commission
Morrison, Daryl	Illinois Education Association
Nielson, Robert	Bloomington Public Schools District 87
Nowell, Amy	Chicago Public Schools
Parke, Scott	Illinois Community College Board
Peterson, Jim	Bloomington Public Schools District 87
Shake, John	Illinois State Board of Education
Sheets, Robert	Department of Commerce and Economic Opportunity
Summers, Warren	Illinois State Board of Education
Tyszko, Jason	Office of the Governor Pat Quinn
Wise, Connie	Illinois State Board of Education

The Working Group met on September 24, 2009 to discuss the RFI responses, consider the proposed requirements for the LPMS, and address a series of discussion questions relating to the LPMS. Feedback from the Working Group session was incorporated into the proposed design requirements. The Working Group met via webinar on November 24, 2009 to review and offer feedback on a draft version of the design requirements that were subsequently posted on the Illinois Procurement Bulletin to solicit vendor input and feedback.

Requests for Information

ISBE also worked with vendors through a process of responses to Requests for Information (RFIs) and a working session to better define scope, priorities, risks, critical success factors, phasing and budget. The RFI processes enabled the State to leverage vendor experiences with hundreds of districts that would otherwise have taken thousands of hours and dollars to collect, and validated that the State's strategy, while ambitious, is achievable.

In July 2010, ISBE issued a Request for Information (RFI) in order to ascertain the number of potential vendors and the various learning and performance management systems available in the marketplace. The RFI requested responses to a series of questions to generate

detailed information about the scope of the marketplace. The RFI also asked for four references, including cost and pricing structure for implementation. ISBE received 23 responses from international leaders in technology deployment and development, as well as from companies and universities with extensive experience working with Illinois school districts.

Informed by the responses to the initial RFI and the working group processes, a detailed description of proposed LPMS requirements was drafted and posted by ISBE to the Illinois Procurement Bulletin on December 2, 2009. ISBE received 21 responses to this second RFI with detailed recommendations for better defining the vision and sharpening the proposed requirements. The RFI also invited vendors to a working session on January 5, 2009 to further develop the proposed requirements in advance of this application. During this unique session, which included 35 attendees with leading expertise in this field, ISBE gained further input leading to the LPMS plan components set forth in this application.

B. Cloud Computing Infrastructure

"Cloud computing" generally refers to an approach to computing where hardware infrastructure management, software upgrades, and physical location are independent from users who can access the centrally hosted capabilities through a web-based interface. Some of the primary examples of cloud computing models are services offered by Amazon (EC2/S3) and Google (Apps). These commercial examples are commonly considered the public cloud where consumers are empowered to procure and manage various resource with little regard or concern about where the under laying hardware resources exists and how those are managed.

The "Amazon EC2/S3" model provides consumers the ability to acquire dedicated use of one-to-many virtual computer instances that they are able to manage and fully control in terms of the operating system, software resources, and how their resources are exposed (or not exposed) to the world. This type of cloud service can be described as Infrastructure as a Service, as consumers can develop and deploy an entire logical computational enterprise that is tailored to the specific requirements. The primary benefit for consumers is that the service provider, which determines their cost obligations, meters their use and workloads. This attribute is known as pay-as-you-go and allows consumers to dynamically scale their resource pool up or down based on their demands. There are obvious advantages and appeal in this type of arrangement but it also comes with some effective limitations. For example computational resources and interconnects are generally limited to the offerings of the service provider.

In contrast, the "Google Apps" model provides the consumer access and use of a collection of (potentially integrated) software services that they access using the Internet. This type of cloud computing concept is Software as a Service (SaaS) where consumers are complete devoid of any concerns related to hardware infrastructure or management of that category of resources. Consumers engage into a relationship with the vendor and simply utilize the software resources provided under the terms of agreement. Some well-known examples of this kind of cloud computing services from Google are Gmail, Docs, Calendar, and many others. Aside from the free to the public (individual) versions of these services Google also offers educational and business versions as hosted services, the educational versions are free to academic institutions. The appeal of this type of cloud concept is that the burden of information technology infrastructure is completely removed from the consumers that procure these services. One obvious concern for consumers with this type of service might be the reliability and security of their private data assets which are completely under the management of the service provider, however this is not different that entrusting those assets to an internal group of employees.

The examples briefly described are examples of "Public" cloud services that are completely managed and maintained by vendors. A "Private" cloud is also possible which allows an enterprise to employ the underlying technologies to build, manage, and maintain the ability to provide an Amazon like EC2 service for their exclusive use. In this private-cloud the organization could also develop, deploy, and maintain a collection of software services to support their operations, missions, and goals. A hybrid approach to using cloud computing concepts could include both a private cloud and use of service available in the public cloud. The inherit advantage of the hybrid approach lies in the fact that critical infrastructure can be

exclusively managed and maintained by the organization with the ability to dynamically utilize resources in the public cloud where applicable and for handling demand overflow.

The LPMS will build on the software foundations of "public", "private", and "hybrid' Cloud models to ensure effective use of the best of breed in software infrastructure and data analysis tools. As discussed in its Letter of Support attached in Appendix __, the National Center for Supercomputing Application at the University of Illinois (NCSA) has offered to partner with the State in the design and deployment of the cloud environment, which would allow the State to leverage NCSA's extensive, world-class expertise in cloud computing concepts and methods of implementation.

C. NCSA Overview

The faculty and staff at the National Center for Supercomputing Application at the University of Illinois (NCSA) have a long and proven track record of innovation and success that include foundational roles in development of the internet browser (Mosaic), significant contributions for high performance computing infrastructures (TeraGrid), and are actively engaged with many local, national, and international collaborators. As a partner, NCSA brings significant expertise in information technology security, engineering, design, and management.

Some on-going and recent background activities are briefly described below:

- The Blue Waters project is expected to be the most powerful supercomputer in the world for open scientific research when it comes online in 2011. It will be the first system of its kind to sustain one petaflop performance on a range of science and engineering applications. The project also includes intense collaboration with dozens of teams in the development of science and engineering applications, system software, interactions with business and industry, and educational programs. This comprehensive approach will ensure that scientists and engineers across the country will be able to use Blue Waters to its fullest potential.

- The Illinois Cloud Computing Testbed is the world's first cloud testbed aimed at supporting both systems innovation and applications research. The testbed, which is run by Illinois' computer science department, is configured with about 500 terabytes of shared storage and more than 1,000 shared cores.

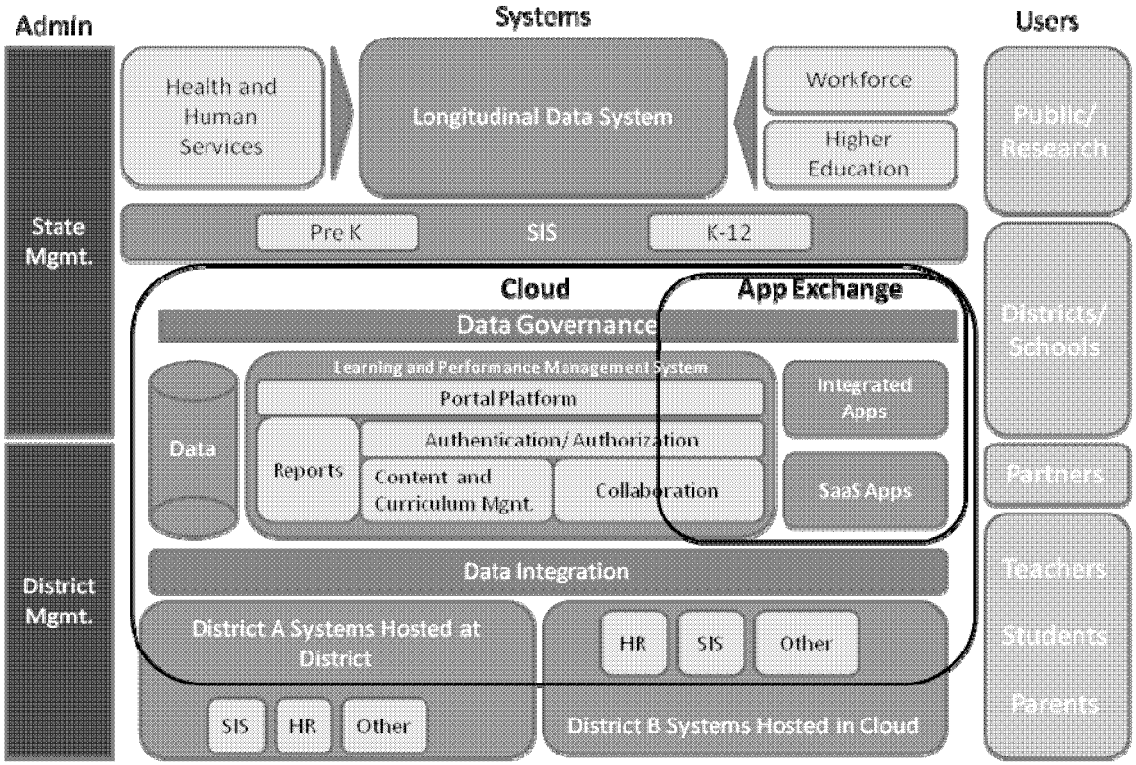
- Lincoln scholars worldwide have access to a life's worth of writings by America's 16th president via the Web, thanks to The Papers of Abraham Lincoln, a project of the Illinois Historic Preservation Agency, the Abraham Lincoln Presidential Library and Museum, and the University of Illinois at Springfield. NCSA provides a permanent storage archive for the project and created tools to make the storage process easier.

- The Institute for Chemistry Literacy through Computational Science (ICLCS) is a program of the University of Illinois' Department of Chemistry, College of Medicine, and NCSA. Partners include 103 school districts across Illinois representing 115 ICLCS Fellows. This program is a 5-year National Science Foundation funded Math Science Partnership program to increase the chemistry literacy and chemistry-related pedagogical skills of rural Illinois high school teachers. The vision for the program is to prepare rural Illinois chemistry teachers and their students for the 21st Century through content, computational tools, teaching methodology, and leadership development to meet the following goals:

    1. Strengthen high school teachers' and students' understanding of chemistry and the application of chemistry to the world around them;

2. Instill in teachers a sense of confidence and competence about their ability to teach chemistry, with a focus on using computational tools, modeling and visualization;
3. Build a strong learning community among research faculty and high school teachers to enable year-round professional development; and
4. Create a cadre of leaders who will become advocates for excellence in mathematics and science.

D. LPMS Diagram



Explanatory Notes:

1. SIS refers to the ISBE Student Information System, including data from PreK – grade 12 (and in the process of being expanded to Birth to grade 12). ISBE has data sharing agreements with other state education agencies necessary to obtain P-20 longitudinal data. ISBE will oversee integration of data from the State Longitudinal Data System and SIS with the LPMS. Data flow to and from State systems into the Cloud will be clearly defined through the LPMS Governance Structure.

2. The Applications Exchange envisions both "Integrated Apps" and "SaaS Apps." Integrated Apps will consist of core system features for which the State is willing to make the investment to deploy and maintain on the LPMS, including Common Core resources, STEM Learning Exchanges, and the Student Vault. "SaaS Apps" will be available to LEAs through a Software as a Service model (e.g., owned and remotely managed and paid for through a pay-for-use or subscription basis) and would include local Student Information Systems and vendor instructional improvement systems. Assessments for Learning may consist of both Integrated Apps and SaaS Apps.

3. Two district integration systems are depicted. In District A, key local systems such as Student Information Systems (SIS), Human Resource Management Systems (HR), and other administrative and instructional improvement systems are hosted locally. However, these systems are integrated with the LPMS to leverage the centrally hosted applications and functions. In District B, upon full deployment of the LPMS and the establishment of a mature App Exchanges, these systems can be hosted in the cloud and accessed as an SaaS App.

4. "Users" refer to individuals and organizations that will both contribute to the overall system and interact with the applications and information that the system will provide. In addition to actors such as the public and research community, this system will be particularly focused on delivering tools to teachers, parents, and students. It is important to highlight the inclusion of "Partners" that represent major contributors to the overall system. Only through partnerships can the state and system develop the capacity and build the tools for virtual learning communities, mentors, and curriculum far beyond simply accessing data or hosting software. Partners are seen as providing "SaaS apps", integrated apps, curriculum, and content. Critically, by building these on a common dataset the tools can be leveraged across the state.

E. Data Integration Requirements and Challenges

The Learning and Performance Management System (LPMS) will rely on a core dataset as clear and minimal as possible to control project scope and support the integration of multiple applications. Vendors providing systems for the cloud must find the data model easy to adopt, and the model must support migration from the wide variety of systems now in use. In most instances, the LPMS data integration platform will not be a system of record for its core elements. Instead, the LPMS will rely on good data validation and actionable error reporting so that data can be cleansed in the appropriate source systems. For a few user goals -- student grouping for reporting, collaboration, etc. -- the LPMS will provide add/edit/delete functionality. In addition, as local student information systems are migrated to the cloud environment, the LPMS will need to provide a data extension that includes add/edit/delete features to capture data not otherwise captured by the ISBE SIS.

While the next phase of design requirements will include further definition of the core dataset, several requirements and principles will guide its development. First, the LPMS will rely on the State unique identifier for students and staff utilized by all system components. Certain minimum data elements must be included, such as enrollment, student grouping, student outcomes, daily attendance, student formative data, postsecondary data, knowledge object metadata (linked to Common Core Standards), demographics, student biographical, teacher longitudinal identifiers, teacher core attributes (role, education, credentials), and class-level enrollment (teacher-student link). Many of these elements will be captured by the ISBE SIS system, particularly upon its expansion to include transcript data and teacher-student link. Illinois recognizes that other states that have implemented a teacher-student link and transcript data collection system have found that simply possessing the data at the state level does not translate to teachers to being able to access their students' past course enrollments, attendance, course grade and other assessment data. By creating a robust LPMS linked to the SLDS, Illinois will be able to support school and classroom level applications with frequent and timely data to assist teachers in tailoring curricular and instructional responses to the needs of their individual students.

The dataset must be defined to include both "State" domains and "district" domains. State domains will be those for which the State must have access for reporting, accountability, and longitudinal tracking. Within the State domain, data will be further defined based on frequency of upload to specify: (1) constantly refreshed data for core applications, and (2) other data pulled on a predefined schedule to permit prior local data validation. District data domains will include all other data that may be integrated into the LPMS by districts participating in the system. The State will only have access to data within the district domain in accordance with clear governance rules, for FERPA-compliant purposes, and after appropriate LEA authorizations.

A critical function of the Learning and Performance Management System will be to provide LEAs with immediate access to data on students who transfer to or are first entering school within the LEA (e.g, providing districts with data from early learning programs, or providing high school districts with student data from elementary grades). The integration of the LPMS with the longitudinal data system will permit access to this data.

The development of the State's longitudinal data system will also include combining P-12, postsecondary, and employment data to facilitate the evaluation and audit of federal and state programs and longitudinal research. The integration of P-12, postsecondary, and employment data for the longitudinal data system will also ensure this data is available for appropriate reporting and analysis within the LPMS.

F. Student Vault

The Learning and Performance Management System (LPMS) will provide districts with the infrastructure (both hardware and software) to consolidate their data and the tools to leverage this data on an ongoing basis. The value of an integrated data solution goes beyond its use by schools, teachers and districts. The LPMS can also provide a location to focus on the student. With 15% of Illinois students moving each school year (25% in Chicago), providing tools that track students within a district or school does not recognize the reality of the current mobile student. Particularly in Illinois, with its multitude of separate K-8 and 9-12 districts, students that do not change schools will also experience transitions from pre-school, to elementary, to middle school and high school, often with little information exchanged between different institutions.

This lack of a clear student picture impairs a teacher's ability to plan, a parent's ability to understand their student's growth and the student's ability to know where they should be going. Creating an open system that allows data to come from multiple sources to create a clear picture of student's history would alleviate these issues. Additionally, the increased focus on aligned standards from PK-12 should provide students and parents a clear picture of where they are going. This articulation of students' pathways allows participation from the community, business and education supporters beyond school. In addition, this provides students and their parents control over their information, addressing concerns about privacy, clearly delineating who has access to data and providing students and parents the ability to increase or decrease access where appropriate.

A "Student Vault" would be an open system which collects the education history of a student, including data from pre-school through post-secondary; in addition this system can collect student work done in traditional schools and beyond creating a portfolio that can be used for development and assessment. It would provide the protocols and framework to allow organizations to provide an integrated and clear student picture. This would enable functionality for students to:

- Access all of their data held by schools, colleges and related partners (e.g., workforce organizations) and use it for education and career planning.
- Develop career and education plans, develop and transmit college, job and loan applications, transcripts, and required data; receive information from colleges and other partners on career and educational opportunities, analyze alternative career and educational scenarios (e.g., credit transfers, time to degree, return on investment) and other applications that can be incorporated by schools, parents, and students (e.g., applications store).

This platform provides a framework to increase the breadth of education options for a student. Linking data from standardized tests to ongoing student work provides information which can be analyzed to understand their relationship. This platform can provide the basis for "authentic" assessment – allowing evaluation to be based on student work. This system focuses education on the student, not simply on a test score, providing a platform where education can be collaborative and relevant. This platform can deliver functionality such as:

- Access to e-learning resources including on-line courses, assessment and feedback systems, reference materials, software tools (e.g., engineering design software) and data bases (i.e., performance support systems) hosted throughout the world as well as connections to other students, teachers, and mentors and tutors (e.g., performance support systems.)
- Project management resources to work in open collaborative teams to address real-world interdisciplinary problems developed by teachers as well as outside partners and sponsors including businesses, government, non-profit organizations (e.g., Innocentive.com) as piloted in the Illinois Innovation Talent project. This would support the Illinois definition of STEM education.

Tools for teachers and instructional support staff to develop and share learning resources and participate in professional learning communities to support students within specific disciplines (e.g., English, math) and application areas (e.g., Health Sciences).

G. LPMS Governance Structure

As described in Section C.3 of the Plan, a governance structure supporting a State-district partnership will be critical to the success of the LPMS. The State will need to have access to necessary data from the LPMS for uploading into ISBE base systems to support a wide variety of reporting, program audit and evaluation, and support functions. However, the LPMS will need to be designed to have clear rules on when these uploads will occur and to ensure that districts can undertake necessary cleansing and validation processes beforehand (though these processes should be less necessary with frequent user access to data). Otherwise, districts will not have adequate trust in the State's use of data maintained within the LPMS, and therefore will not use it. The LPMS will also need to clearly define the decision rights, processes, and relationships between LPMS applications and accessibility to data.

In order to establish a functioning enterprise governance structure, ISBE will work with participating districts to create a formal Central Data Governance (CDG) organization structure. Typically, this is led by a steering committee (and associated sub committees) that will review and develop data appropriate data and system governance policies, identify enterprise-wide data sets, develop data standards and definitions, establish data quality benchmarks, ensure stakeholder recognition and inclusion, as well as determine the guiding principles and standards for the access, use and distribution of data. In addition, clearly defined authority and accountability, as well as roles and responsibilities must be established, published and communicated to appropriate stakeholders, data users and data owners. Some key governance positions are needed to develop, implement and enforce adoption of a formal governance structure that will leverage overall data management best practices and effectively utilize proven technology to promote the goals of the LPMS. At a minimum, a Governance structure would exist at three levels:

1. The Executive-level sets the overall vision and goals for the organization and defines direction for the ISBE Data Governance Program.
2. At the management-level is the Center for Data Governance (CDG), which runs the ISBE Data Governance Program, and teams with resources across ISBE and the LEAs to report on data quality and to conduct impact analysis and issue resolution processes.
3. The Stewardship Community addresses specific issues and concerns on a day-to-day basis and provides data quality information to the DDG and the CDG. Issues identified by the business community can be routed through the Data Stewards to the CDG and escalated as needed.

The governance structure will need to ensure that student data is maintained, shared, and accessed in strict accordance with the Family Educational Rights and Privacy Act (FERPA), the Illinois School Students Records Act (ISSRA), 105 ILCS 10/2 *et seq.*, and other privacy protection laws. All aspects of the LPMS must be developed and implemented with a continuing focus on both student and educator privacy protection. The LPMS must only allow access to student and educator data in accordance with clearly articulated standards, depending upon privacy protection requirements and the user's purpose in obtaining the data.

H. LPMS Procurement and Development: Timelines, Key Activities, and Responsible Parties

Section C.3 of the plan establishes Illinois' vision for a Learning and Performance Management system which provides the backbone for successful local instruction improvement applications, tools and resources. Over the last 6 months Illinois has determined the high-level projects and objectives it must achieve to make this vision a reality. However, this is only the start of the process. Illinois understands that in order to make this project a reality it must initiate a process of detailed needs analysis for each project, develop implementation plans, select vendors, develop detailed scope, fund development, plan testing, pilots, and overall roll-out.

While the timeline set forth below is aggressive, ISBE believes "quick wins" are essential and various components of the LPMS will be critical for supporting Participating LEA implementation of the RTTT reforms. As the environment matures, enhanced functions (such as the Student Vault) and the third-party Applications Exchange can be deployed. If Illinois does not receive a Race to the Top grant in Phase 1 of the competition, these timelines will be adjusted based upon the availability of funding.

The "LPMS developer" referenced below could include subcontractors for key system components, provided a lead entity must have responsibility for system implementation. Further, ISBE has legal authority to enter into an intergovernmental agreement with other public entities (including public universities) to develop and deploy system components without undertaking a procurement. ISBE intends to explore partnerships with the National Center for Supercomputing Applications at the University of Illinois (NCSA) and with the multi-LEA grassroots consortium for the deployment and operation of the cloud computing environment for the LPMS and other contributions to its design.

Timeline	**Activity/Responsible Parties**
January – April 2010	ISBE and LPMS Working Group undertake further stakeholder engagement and requirements development define requirements.
April 2010	Illinois receives notification on Phase 1 Race to the Top funding. **Subsequent timelines assume Phase 1 Race to the Top funding is received.*
May – June 2010	ISBE, with input from the working group, develops the RFSP
July 2010	ISBE issues the RFSP.
October 2010	The LPMS developer is selected by ISBE through a process ensuring input from stakeholders and necessary technical expertise.
November 2010 – August 2012	• LPMS developer designs and develops the System. • The LPMS developer oversees data integration pilots with 10-12 Participating LEAs (with preference for Super LEAs). • The LPMS developer deploys the "Priority Implementation" applications as broadly as feasible. • The LPMS developer and collaboration among

	Participating LEAs pilot a local SIS integration with the LPMS.
September 2012 – August 2013	• The LPMS developer deploys all but the "Secondary Implementation" applications. • The LPMS developer pilots the Secondary Implementation Applications.
September 2013	Full implementation

Appendix D1-1

Alternative Teacher Certification Programs in Illinois

Breakdown by Offering Institution

TEACHER PROGRAMS

Type of Program	Institution	# of teachers that completed program in SY 2008 - 2009
Alternative Teacher Certification Program (CPS) (5/21-5b)		
	Dominican University	50
	National – Louis University	312
	Northwestern University	59
	Quincy University	74
	University of Illinois at Chicago	5
	University of Illinois at Urbana (Discontinued)	0
Alternative Route to Teacher Certification (5/21-5c)		
	Benedictine University	101
	Eastern Illinois University	21
	Governors State University	32
	Illinois state University (Discontinued)	6
	McKendree University	0
	Rockford College	0
	Southern Illinois University Carbondale	12
Resident Teacher Certification (5/21-11.3)		
	Chicago State University	0
	Northern Illinois University (Discontinued)	0
	Total	672

Appendix D2-1

Performance Evaluation Policy Group

Member Name	Agency/Organization
Linda Tomlinson	ISBE
SusieMorrison	ISBE
Darren Reisberg	ISBE
Patrick Murphy	ISBE
Linda Jamali	ISBE
Dave Andel	ISBE
Joyce Zurkowski	ISBE
Gayle Johnson	ISBE
Rick Voltz	IASA
Diane Rutledge	LUDA
Audrey Soglin	IEA
Dick Spohr	IPA
John Luczak	Joyce Foundation
Robin Steans	Advance Illinois
Ben Boer	Advance Illinois
Joe Pacha	ISU
Steve Tozer	UIC
Robert Grimm	Township High School District 211
Steven Isoye	Maine East High School
Ray Pecheone	Stanford University
Hardy Murphy	Evanston/Skokie School District 65
Susan Schultzs	Evanston/Skokie School District 65
Jon Furr	Holland & Knight
Darlene Ruscitti	DuPage County ROE
Jennifer Mulhern	The New Teacher Project
Sue Walter	Illinois Federation of Teachers
Amy Alsop	Illinois Federation of Teachers
Rachel Resnick	Chicago Public Schools
Ellen Moir	The New Teacher Center
Mike Jacoby	Illinois Association of School Business Officials
Larry Stanton	LB Stanton Consulting, Inc.

Appendix D3-1

Index of Teacher Academic Capital (ITAC)

The Illinois Education Research Council (IERC) has been tracking data on all Illinois public school teachers since 2001 to measure changes in teacher qualifications and whether all students have equitable access to high quality teachers.

The IERC's Index of Teacher Academic Capital (ITAC), measures *only* those teacher attributes which have been shown by previous research to be related to student performance and for which statewide data are readily available. Alongside the ITAC, the IERC also tracks the distribution of inexperienced teachers (those with three or fewer years teaching) in each school throughout the state. The most recent ITAC study utilized the following five school-level measures of teacher attributes:

- The mean ACT composite score of teachers at the school;
- The mean ACT English score of teachers at the school;
- The percentage of teachers at the school who failed the Illinois Basic Skills test on their first attempt;
- The percentage of teachers at the school who were emergency/provisionally certified; and
- The mean Barron's competitiveness ranking of the undergraduate institutions attended by the school's teachers.

The ITAC statistically combines these measures to produce a composite index that maximizes the variation in the component indicators and can be used as an indicator of average teacher quality at each school. In order to measure change in ITAC over time, the IERC produced a measure that is comparable from year to year, and also based on an observed distribution of teacher attributes during a given year. To do this, they used a base year to establish an actual relationship between ITAC components at a set point in time, and then applied these constant, derived weights to the components observed for each subsequent year. By design, the ITAC has a mean of zero and a standard deviation of one during the base year. Thus, each school's ITAC reflects its standing relative to the distribution of schools during the base year. So, if a particular school had an ITAC of 1.0, this would mean that its teacher academic capital that year was one standard deviation higher than the average Illinois school during the base year.

While ITAC represents the collection of intellectual resources and assets that are available to schools through their teachers, we acknowledge that it is just one of many aspects of teacher quality—along with preparation for teaching, ongoing professional development, daily decisions about curriculum and instruction, and other factors—that influence student learning. However, the IERC's research has shown that the ITAC does influence student achievement and should be taken into consideration when developing policies and practices for strengthening teacher quality in schools.

REFERENCES:

White, Bradford R., Jennifer B. Presley, and Karen J. DeAngelis (2008). Leveling Up: Narrowing the Teacher Academic Capital Gap in Illinois. (Policy Research Report IERC 2008-1). Edwardsville, IL: Illinois Education Research Council.

Presley, Jennifer B., Bradford R. White, and Yuqin Gong (2006). ***Examining the Distribution and Impact of Teacher Quality in Illinois***. (Policy Research Report IERC 2005-2). Edwardsville, IL: Illinois Education Research Council.

DeAngelis, K. J., Presley, J. B., & White, B. R. (2005). The Distribution of Teacher Quality in Illinois. (Policy Research Report IERC 2005-1). Edwardsville, IL: Illinois Education Research Council.

Appendix D3-2

State Action to Strengthen Teacher and Principal Workforce

Over the past few months and continuing into the next year, Illinois is taking a number of steps to further strengthen teacher and principal qualifications which will result in a further "leveling up" of the caliber of the Statewide teacher and principal workforce with benefits for Illinois' most disadvantaged schools.

Raising the Cut Score: The State Board took action in December 2009 to raise the cut score on the basic skills test required for entrance into teacher preparation programs, and adopted rules to strengthen content knowledge for secondary teachers seeking certification endorsements. Just as the introduction of the basic skills test raised teacher standards, a higher cut score will further improve the quality of its workforce. At its October 2009 meeting, the State Board adopted administrative rules that:

- Limit the number of times an applicant can take the test—a rare step that few, if any, other states have taken; and
- Discontinue accepting grades below "C" for any course work counted towards an endorsement or an approved preparation program.

Improving Content Knowledge: At its October 2009 meeting, the State Board adopted rules for secondary teachers that require 24 credit hours and passage of content knowledge test for secondary endorsements (except science and social science, which require 32 credit hours and passing the content knowledge test). These rules will also require that 12 of the hours be in upper-level courses. Over the course of the next year, ISBE intends to take various steps to improve content knowledge for teachers in all grade levels:

- For middle school endorsements, ISBE will pursue an administrative rule change that moves from course-based to standards-based requirements and increases the number of required credit hours from 18 to 24.
- ISBE will also pursue administrative rule changes to add endorsements at the elementary level in reading, math, and science.

Revised Illinois Professional Teacher Standards: In 2010, the State Board of Education will be presented with a rulemaking for revised Illinois Professional Teacher Standards which focus on differentiated instruction and meeting the needs of each child in a classroom. The revised rules will place greater emphasis on instruction for students with disabilities and English language learners. As teacher preparation programs incorporate the new standards, general education teachers will be better prepared to address inclusion of all students.

Principal Leadership Efforts: Over the past two years, ISBE and IBHE have led the work of advisory groups composed of various stakeholders to restructure school leader preparation and certification. Recommendations resulting from the work of these groups will be presented to the State Board in the form of an administrative rulemaking this spring to overhaul the State's administrator preparation program requirements. The recommendations that will be presented to the State Board include: (1) programs must have a stronger focus on instruction and school improvement; (2) programs must meet the Interstate School Leader Licensure Consortium

Standards; (3) the strands of Distinguished Principal must be part of each program; (4) programs must strengthen content understanding for special education and English language learners; (5) every program must include a partnership with one or more school districts; (6) candidates must meet enhanced selection requirements; and (7) programs must include a comprehensive internship/residency requirement that includes a minimum of four weeks of full time residency and 200 additional hours of internship, with required assessments. The proposed administrative rules will require all programs to be resubmitted and approved under the new standards.

Appendix D3-3

The E3 Program: Supplemental Information

The E3 Program will provide funding to Participating LEAs that can be allocated over the four-year Race to the Top grant period for any of the following staffing incentives for an Illinois Priority School:

1. A bonus payment to highly effective teachers and principals that relocate to an Illinois Priority School;
2. A "salary equalization" payment for teachers that relocate to an Illinois Priority School from outside the district, to address a reduction in pay that may result from the district's salary schedule;
3. A stipend for teachers and principals to undertake a year-long residency or co-teaching preparing them for the challenges of working in an Illinois Priority School; or
4. Retention bonuses for existing staff in an Illinois Priority School that are determined to be highly effective.

Participating LEAs must structure their E3 program to address all of the following:

1. The E3 Plan for the Illinois Priority School must address the "school culture and climate" and "Developing Teacher and School Leader Effectivenss" elements of the "Transformation Criteria" established for schools within the Illinois Partnership Zone. (See Appendix E2-2). These criteria address the need for an effective principal serving as an instructional leader, as well as many of the working conditions issues that have been found to be critical for the success of incentive programs (including a safe and orderly environment, implementation of a distributed leadership model, and ongoing job-embedded professional development). The E3 Plan must also ensure adequate time for teachers to collaborate.

2. The Participating LEA must address the salary equalization payment for relocating teachers as long as the teacher remains employed in the Illinois Priority School.

3. The Participating LEA must ensure substantially equivalent incentive structures for highly effective teachers that relocate and highly effective teachers in the Illinois Priority School.
4. The Participating LEA must re-allocate and re-prioritize local funds to provide incentives above and beyond those paid for using Race to the Top funds, and to ensure the long-term sustainability of the incentives. Participating LEAs will be encouraged to develop an array of incentives that may include relocation payments, housing subsidies, paid sabbaticals, etc.

5. The Participating LEA must use a cohort model for attracting new staff to an Illinois Priority School. Generally, the Participating LEA should seek to bring in a minimum of 1/3 of staff to the building in order to bring about a dramatic shift in school culture.[1]

6. The Participating LEA must develop "pipeline" programs to ensure that highly effective teachers and leaders can continue to support Illinois Priority Schools. These programs may include:
   - Expanding alternative certification programs with a proven track record providing effective teachers prepared to teach in under-performing schools;
   - Establishing a residency site where teachers and administrators can participate in an intensive residency program preparing them for the challenges of a persistently lowest-achieving school; or
   - Establishing co-teaching or shadowing programs where a teacher or principal can be paired for a year with a highly effective teacher or principal in an Illinois Priority School to prepare the teacher or principal for the challenges of that learning environment.

7. Schools participating in the E3 Program will also be required to implement a school climate survey providing information on the quality of leadership, development, and district supports. ISBE will develop a model survey instrument that districts can adopt.

Appendix D5-1

Induction and Mentoring: ISBE Partnering Organizations and Teacher Induction Advisory Team

A. ISBE Partnering Organizations

Program	Partnering Organization
Academy for Urban School Leadership	Chicago Public Schools
Adams/Pike ROE #1	Northern Illinois University Induction for the 21st Century Educator (ICE 21)
Adams/Pike ROE #1	Northern Illinois University Induction for the 21st Century Educator (ICE 21)
Belvidere CUSD #100-Belvidere	Consortium for Educational Change
Berwyn South School Dist. #100-Berwyn	West40 Intermediate Service Center
Bond County CUSD #2	Bond-Fayette ROE 3
Bond/Fayette/Effingham ROE #3	Induction for the 21st Century Educator (ICE 21)
Boone/Winnebago Kishwaukee Intermediate Delivery System (KIDS)	Induction for the 21st Century Educator (ICE 21) Boone/Winnebago ROE
Boone/Winnebago Kishwaukee Intermediate Delivery System (KIDS)	Induction for the 21st Century Educator (ICE 21) Boone/Winnebago ROE
Bureau/Henry/Stark ROE #28-Atkinson	Induction for the 21st Century Educator (ICE 21)
Calhoun/Greene/Jersey/Macoupin ROE#40-Carlinville	Induction for the 21st Century Educator (ICE 21) Lewis & Clark Community College
Calhoun/Greene/Jersey/Macoupin ROE#40-Carlinville	Induction for the 21st Century Educator (ICE 21) Lewis & Clark Community College
Carroll/ JoDaviess/Stephenson ROE #8-Stockton	Induction for the 21st Century Educator (ICE 21)
Champaign Unit 4	Rantoul Regional Office of Education--Schoolworks Center for Cognitive Coaching Champaign Federation of Teachers
Champaign Unit 4	Rantoul Regional Office of Education--Schoolworks Center for Cognitive Coaching Champaign Federation of Teachers

Program	Partnering Organization
Champaign Unit 4	Rantoul Regional Office of Education--Schoolworks Center for Cognitive Coaching Champaign Federation of Teachers
Chicago PSD #299 (Areas 3, 7, 13, 14, and 17)	Illinois Federation of Teachers Chicago New Teacher Center New Teacher Center--Santa Cruz, CA Chicago Public Schools Board of Education Professional Development Unit
Chicago PSD #299 (Areas 3, 7, 13, 14, and 17)	Illinois Federation of Teachers Chicago New Teacher Center New Teacher Center--Santa Cruz, CA Chicago Public Schools Board of Education Professional Development Unit
Chicago PSD #299 (Areas 3, 7, 13, 14, and 17)	Illinois Federation of Teachers Chicago New Teacher Center New Teacher Center--Santa Cruz, CA Chicago Public Schools Board of Education Professional Development Unit
Chicago PSD #299 (Areas 3, 7, 13, 14, and 17)	Illinois Federation of Teachers Chicago New Teacher Center New Teacher Center--Santa Cruz, CA Chicago Public Schools Board of Education Professional Development Unit
Chicago PSD #299 - Office of New Schools	New Teacher Center--Santa Cruz, CA
Consortium for Educational Change-Marion	Marion IEA
Danville CCSD #118	Consortium for Educational Change Danville Education Association
Danville CCSD #118	Consortium for Educational Change Danville Education Association
Decatur Public School District #61-Decatur	Consortium for Educational Change
Des Plaines CCSD #62-DesPlaines	Consortium for Educational Change
DeWitt/Livingston/McLean ROE#17-Normal	Illinois State University
DuPage County ROE #19-Wheaton	Induction for the 21st Century Educator (ICE 21)
Elgin School District U-46	Consortium for Educational Change Northern Illinois University Elgin Teachers Association
Elgin School District U-46	Consortium for Educational Change Northern Illinois University Elgin Teachers Association
Elgin School District U-46	Consortium for Educational Change Northern Illinois University Elgin Teachers Association

Program	Partnering Organization
Evanston/Skokie SD #65	Consortium for Educational Change
Geneseo CUSD #228-Geneseo	Learning Point Assoc
Georgetown-Ridge Farm CVSD #4	Rantoul Regional Office of Education--Schoolworks
Glenview Public School Dist. #34-Glenview	Consortium for Educational Change
Hawthorn SD #73	Consortium for Educational Change
I-KAN (Iroquois/Kankakee) ROE #32-Kankakee	Induction for the 21st Century Educator (ICE 21)
J. Sterling Morton HSD #201	Morton Council Union Illinois Federation of Teachers
J. Sterling Morton HSD #201	Morton Council Union Illinois Federation of Teachers
LaSalle County ROE #35	Induction for the 21st Century Educator (ICE 21)
Madison County ROE #41	Induction for the 21st Century Educator (ICE 21)
Marquardt SD #15	Consortium for Educational Change Marquardt Education Association
Marquardt SD #15	Consortium for Educational Change Marquardt Education Association
McLean County CUSD #5-Normal	Consortium for Educational Change
Mid-Illini Educational Cooperative, Professional Development Provider for ROE's 22, 38 and 53	Induction for the 21st Century Educator (ICE 21)
Monroe/Randolph ROE #45-Waterloo	Induction for the 21st Century Educator (ICE 21)
Naperville CUSD #203-Naperville	Consortium for Educational Change
National-Louis University	Chicago Public Schools Office of School Turnaround
Oswego CUSD #308-Oswego	Learning Point Assoc New Teacher Center--Santa Cruz, CA
Oswego CUSD #308-Oswego	Learning Point Assoc New Teacher Center--Santa Cruz, CA
Peoria District #150	Induction for the 21st Century Educator (ICE 21)
Plainfield School District #202 - Plainfield	Learning Point Assoc
Quincy School District #172 - Quincy	Illinois Federation of Teachers
Rock Island County ROE #49-Moline	Augustana College
Rockford School District #205 - Rockford	Consortium for Educational Change
Round Lake Area Schools District #116	Northern Illinois University University Center of Lake County
Round Lake Area Schools District #116	Northern Illinois University University Center of Lake County
South Cook Intermediate Service Center #4	Induction for the 21st Century Educator (ICE 21)

Program	Partnering Organization
Springfield School District #186 - Springfield	Consortium for Educational Change
St. Clair ROE #50 - Belleville	Induction for the 21st Century Educator (ICE 21) Illinois Federation of Teachers
St. Clair ROE #50 - Belleville	Induction for the 21st Century Educator (ICE 21) Illinois Federation of Teachers
Township High School District #214	New Teacher Center--Santa Cruz, CA
West 40 Intermediate Service Center #2	Induction for the 21st Century Educator (ICE 21)
Will County ROE #56 - Professional Development Alliance	Induction for the 21st Century Educator (ICE 21)
Yorkville CUSD #115	Learning Point Assoc

B. Teacher Induction Advisory Team

Member	Organization
Angela Rudolph	Joyce Foundation
Chris Roegge	Illinois New Teacher Collaborative
Carlene Lutz	IFT
David Osta	The New Teacher Center
Dea Meyer	The Civic Committee of The Commercial Club of Chicago
Diane Rutledge	LUDA
Vicki Hensley	IKAN ROE
Jason Leahy	IPA
John Luczak	Joyce Foundation
Mimi Mappel	The New Teacher Center
Audrey Soglin	IEA
Linda Tomlinson	ISBE

Appendix D5-2

Using the State's National Board Certification Resources to Promote Common Planning and Collaboration: Supporting Information

The State's multi-year proposal to use the State's National Board Certification resources to promote common planning and collaboration will:

- Develop a comprehensive, sustained, and intensive professional development intervention that creates transformational change in instructional practices in science, technology, engineering, mathematics (STEM) and literacy to accelerate student achievement in these content areas;

- Provide specialized training to NBCTs to launch whole school reform efforts in collaboration with school-based administrators to create professional learning communities that are sustained over time, job-embedded, and that provide the kind of collaborative learning that leads to long-term improvements in effective classroom practice and increased student achievement gains in science, technology, engineering, mathematics (STEM) and literacy; and

- Provide a scalable model across districts and the state—and encompasses all levels of leadership, including the leadership and support of the offices of State education agencies, a state coordinator and lead NBCT who coordinates the program at the state level—as well as district- and school- level educators.

Data-driven Instructional Strategies:

Three years of previous student assessment data will be loaded from each school into a secure website. Previous data will be compared with student data collected the year school staff go through *Take One!* (described below) along with data that is collected the subsequent year. In addition, *School Data 4 All* will work with the participating schools to include teacher profile and school profile data, and identifiers of other personnel that follow students. On an ongoing basis, data collection and analysis will be used to evaluate and reflect on ongoing improvements in teaching and instructional practice and student learning, including structured teacher self-reflection, and examining and analyzing student performance on state academic achievement assignments, and other student work to strengthen effective teaching practice.

School Participation & Scale-Up:

Priority for participation will be given to schools within high-need Participating LEAs that are in the bottom quartile of achievement statewide. Each school must commit to 100% participation of teachers in science, technology, engineering & mathematics (STEM) and English language arts. At least 75% of the total faculty must agree to participate in *Take One!* to be

eligible for participation. All school faculty and the school principal will participate in school improvement planning and data analysis.

The rollout for this program will involve three pathways of school participation. Ten high schools will be selected from 4 – 5 Participating LEAs to begin the first year. An additional 10 middle schools (grades 6 – 8) that feed into those high schools will be selected in the second year to begin the NBPTS processes. Also in year two, 10 middle schools (teachers in grades 6 – 8) will be selected to participate in one year of school improvement preparation and then move into the NBPTS processes. Selected schools will be added each year based on their readiness for school improvement and the National Board Certification processes. It is expected that as the program expands, materials, reports, documents, and trainings will be established to build capacity and support at each school site.

Chart of Professional Development for Three Pathways of School Participation

Number of Schools	Year	NBPTS Participating Teachers	Teachers Not Participating in NBC	NBCTs	Principals
10 High Schools	1	60% of STEM teachers through *Take One!* Process	School Improvement Planning (SIP)	• *Take One!*/Candidate Mentor Training • Modified Leadership Institute	Leadership Institute
	2	• Additional 40% of STEM teachers through *Take One!* Process • Teachers from other subject areas through *Take One!* Process • National Board Certification (NBC)	SIP Work	Modified Leadership Institute	Leadership Institute
	3	• Additional teachers from other subject areas through *Take One!* Process (Total for three years to equal 75 % of teachers. • NBC Process • Retake Process	SIP Work		National Board Certification for Education Leaders Process (NBCEL)
	4	• NBC Process • Retake Process • SIP Work	SIP Work		
10 Middle Schools (grades 6-8)	1	Recruitment	Recruitment	Recruitment	Recruitment
	2	60% of STEM teachers through *Take One!* Process	SIP Work	Modified Leadership Institute	Leadership Institute
	3	• Additional 40% of STEM teachers through *Take One!*	SIP Work	• *Take One!*/Candid	Leadership Institute

		Process • Teachers from other subject areas through *Take One!* Process • NBC Process		ate Mentor Training • Modified Leadership Institute	
	4	• Additional teachers from other subject areas through *Take One!* Process (Total for three years to equal 75 % of teachers. • NBC Process • Retake Process	SIP Work		NBCEL Process
10 Middle Schools (grades: 6-8)	1	Recruitment		Recruitment	Recruitment
	2	Preparation and SIP Work	SIP Work	Modified Leadership Institute	Leadership Institute
	3	60% of STEM teachers through *Take One!* Process	SIP Work	• *Take One!*/Candidate Mentor Training • Modified Leadership Institute	Leadership Institute
	4	• Additional 40% of STEM teachers through *Take One!* Process • Teachers from other subject areas through *Take One!* Process • NBC Process	SIP Work		NBCEL Process

Overview of *Take One!*

1. **What is Take One!?**

Take One! is a professional development opportunity that is based on the National Board Certification assessment program. *Take One!* participants study the NBPTS standards, complete a video portfolio entry featuring a classroom of preK-12 students and submit the entry to NBPTS for scoring in accordance with the deadlines and policies of the current NBPTS assessment program.

2. **What is involved with the Take One! portfolio?**

The video portfolio entry requires some direct evidence of teaching or school counseling (e.g., video excerpts of teaching or counseling sessions) as well as a commentary describing, analyzing and reflecting on this evidence. All evidence of work with students must be gathered during the 12-month period immediately preceding the portfolio entry submission deadline.

3. **What are the benefits of Take One!?**

Take One! is high-quality professional development that provides a job-embedded and sustained staff development experience, helps build learning communities in schools, strengthen professional collaboration among educators and informs teachers who are thinking about pursuing National Board Certification.

4. **Who can participate in Take One!?**

Take One! is available to any educator that has access to a classroom of students for the purpose of demonstrating preK-12 teaching, including teachers, school counselors (regardless of their experience levels), educators in higher education, induction or pre-service teachers, principals, administrators, mentors and those who provide support for National Board Certification candidates. *Take One!* is classroom-based professional development and requires that educators have access to a preK-12 classroom to complete the portfolio entry. The class may be borrowed.

5. **Are principals eligible to be Take One! participants?**

Principals can participate with faculty members who are *Take One!* participants. By going through the process together, they can build a common language and community of practice around standards-based teaching. Because Take One! is classroom-based professional development, principals must have access to preK-12 classrooms.

NBCT Partnering Entities

National Board for Professional Teaching Standards (www.nbpts.org)

The National Board for Professional Teaching Standards (NBPTS) is the nation's premier organization focused on advancing quality teaching and learning by developing national teaching standards, creating a voluntary system to certify teachers who met those standards, and integrating NBCTs into school reform efforts. NBPTS supports this intervention as is ready to help the state identify partners to link with work already underway.

School Data 4 All (www.schooldata4all.org/index2.php)
Since its inception, School Data 4 All, Inc. has been working with National Board Certified Teachers to train participating school districts on the uses of the website. Drawing on the assessment data already at the school site, School Data 4 All will allow participating school sites to improve their data collection systems to collect and to better utilize data to inform classroom practice.

National Board Resource Center at Illinois State (http://www.coe.ilstu.edu/ilnbpts/)

Established in 1999 as one of five national centers by the National Board for Professional Teaching Standards (NBPTS), the National Board Resource Center (NBRC) at ISU has been pivotal in growing the number of NBCTs in all regions of Illinois, as well as providing research and information about the impact of NBCTs on student learning and aligning programs to the National Board's Standards for accomplished teaching. NBRC stands ready to support this intervention as well as help to identify potential school sites, with sufficient numbers of NBCTs.

Illinois Principals Association (http://www.ilprincipals.org/)

The mission of the Illinois Principals Association (IPA) is to improve student performance by expanding the leadership knowledge, skills and attitudes of principals. The association will work with schools participating in this grant to enhance the knowledgeable and skills of principal and NBCT teacher leaders through its Illinois Distinguished Principal Leadership Institute.

Illinois Math and Science Academy (https://www.imsa.edu/)

With 25% of its faculty holding National Board Certification (including two who recently renewed their certification), twenty-two years of proven success in STEM education, and a mission to become the world's leading teaching and learning laboratory for imagination and inquiry the Illinois Mathematics and Science Academy® (IMSA) is well positioned to facilitate transformational change in STEM instructional practices in the secondary schools. Through its established Problem Based Learning Network, Excellence 2000+ programs and recent addition of Field Offices in Chicago and the Metro East region, IMSA annually works with more than 300 middle and high school teachers annually, teaching them to use inquiry-based methods to teach for deep conceptual understanding. IMSA's math and science NBCTs will serve as lead faculty for this project.

Appendix E1-1

State Intervention Authority and Examples of Past Interventions

(105 ILCS 5/2-3.25f) (from Ch. 122, par. 2-3.25f)

Sec. 2-3.25f. State interventions.

(a) The State Board of Education shall provide technical assistance to assist with the development and implementation of School and District Improvement Plans.

Schools or school districts that fail to make reasonable efforts to implement an approved Improvement Plan may suffer loss of State funds by school district, attendance center, or program as the State Board of Education deems appropriate.

(b) In addition, if after 3 years following its placement on academic watch status a school district or school remains on academic watch status, the State Board of Education shall take one of the following actions for the district or school:

(1) The State Board of Education may authorize the State Superintendent of Education to direct the regional superintendent of schools to remove school board members pursuant to Section 3-14.28 of this Code. Prior to such direction the State Board of Education shall permit members of the local board of education to present written and oral comments to the State Board of Education. The State Board of Education may direct the State Superintendent of Education to appoint an Independent Authority that shall exercise such powers and duties as may be necessary to operate a school or school district for purposes of improving pupil performance and school improvement. The State Superintendent of Education shall designate one member of the Independent Authority to serve as chairman. The Independent Authority shall serve for a period of time specified by the State Board of Education upon the recommendation of the State Superintendent of Education.

(2) The State Board of Education may (A) change the recognition status of the school district or school to nonrecognized, or (B) authorize the State Superintendent of Education to direct the reassignment of pupils or direct the reassignment or replacement of school district personnel who are relevant to the failure to meet adequate yearly progress criteria. If a school district is nonrecognized in its entirety, it shall automatically be dissolved on July 1 following that nonrecognition and its territory realigned with another school district or districts by the regional board of school trustees in accordance with the procedures set forth in Section 7-11 of the School Code. The effective date of the nonrecognition of a school shall be July 1 following the nonrecognition.

(c) All federal requirements apply to schools and school districts utilizing federal funds under Title I, Part A of the federal Elementary and Secondary Education Act of 1965.

(Source: P.A. 93-470, eff. 8-8-03; 94-875, eff. 7-1-06.)

Examples of Past State Interventions in Low-Performing Districts

1. Calumet School District 132.

In Calumet School District 132, ISBE established an Oversight Panel in 2006 as the result of severe mismanagement and neglect of critical educational functions. This Oversight Panel continues in existence and has helped the district meet requirements for compliance, establish financial stability, address board training and responsibility, and undertake facility upgrades and planning. ISBE, working with the district and Oversight Panel, continues to focus on district human capital issues and instructional improvement.

2. Proviso District 209.

In Proviso District 209, ISBE and the local Regional System of Support Provider have worked closely with the district to improve student attendance, district leadership, and district finances. As a result, the district has established a transportation system for the first time in its history, hired a new superintendent and established new positions to provide leadership support and drive school improvement, and voluntarily agreed to a financial oversight panel that assisted the district in making significant reductions in its deficit.

3. East St. Louis District 189.

In East St. Louis District 189, ISBE and the local Regional System of Support Provider have worked closely with the district to develop a District Improvement Plan that addresses improvement activities in all schools, with a primary focus on the high school. The plan addresses the need to re-allocate internal resources and address the systemic low-performance of the high school. Work continues to ensure the plan's successful implementation.

ISBE will continue to lead and, as appropriate, expand and enhance these current efforts.

Appendix E2-1

Illinois Priority Schools

Illinois Priority Schools Designation

- **Both Title I and non-Title I Schools are included**
- **Lowest Achievement 5% of schools over the last 3 years (2007-2009)**
- **Schools need to have assessment data over the last 3 years**

Of the 181 Illinois Priority Schools listed below, 155 of those schools are within Participating LEAs. A list of Tier I and Tier II schools can be found on ISBE's website, under the State Fiscal Stabilization Fund section. See http://www.isbe.net/SFSF/default.htm.

District Name	School Name
Astoria CUSD 1	Astoria High School
Aurora East USD 131	East High School
Bloom Twp HSD 206	Bloom High School
Bloom Twp HSD 206	Bloom Trail High School
Bremen CHSD 228	Bremen High School
Bremen CHSD 228	Hillcrest High School
Brownstown CUSD 201	Brownstown High School
Cahokia CUSD 187	Cahokia High School
Cairo USD 1	Cairo Jr/Sr High School
Carrier Mills-Stonefort CUSD 2	Carrier Mills-Stonefort H S
Carrollton CUSD 1	Carrollton High School
Chicago Heights SD 170	Dr Charles E Gavin Elem School
Christopher USD 99	Christopher High
CHSD 218	DD Eisenhower High Sch (Campus)
CHSD 218	H L Richard High Sch (Campus)
City of Chicago SD 299	Ace Technical Charter High
City of Chicago SD 299	Amundsen High School
City of Chicago SD 299	Best Practice High School
City of Chicago SD 299	Bethune Elem School
City of Chicago SD 299	Bogan High School
City of Chicago SD 299	Bowen Environmental Studies HS
City of Chicago SD 299	Carver Military Academy HS
City of Chicago SD 299	Chalmers Elem Specialty School
City of Chicago SD 299	Chicago Academy High School
City of Chicago SD 299	Chicago Discovery Academy HS
City of Chicago SD 299	Chicago Military Academy HS
City of Chicago SD 299	Chicago Vocational Career Acad HS
City of Chicago SD 299	Clemente Community Academy HS
City of Chicago SD 299	Copernicus Elem School

District Name	School Name
City of Chicago SD 299	Corliss High School
City of Chicago SD 299	Crane Technical Prep High School
City of Chicago SD 299	Curie Metropolitan High School
City of Chicago SD 299	Curtis Elem School
City of Chicago SD 299	Doolittle Elem School
City of Chicago SD 299	Douglass Academy High School
City of Chicago SD 299	Dulles Elem School
City of Chicago SD 299	Dumas Elem School
City of Chicago SD 299	Dunbar Vocational Career Acad HS
City of Chicago SD 299	Dyett High School
City of Chicago SD 299	Earle Elem School
City of Chicago SD 299	Entrepreneurship High School
City of Chicago SD 299	Farragut Career Academy HS
City of Chicago SD 299	Fenger Academy High School
City of Chicago SD 299	Foreman High School
City of Chicago SD 299	Fuller Elem School
City of Chicago SD 299	Fulton Elem School
City of Chicago SD 299	Gage Park High School
City of Chicago SD 299	Gillespie Elem School
City of Chicago SD 299	Global Visions High School
City of Chicago SD 299	Hancock College Preparatory HS
City of Chicago SD 299	Harlan Community Academy HS
City of Chicago SD 299	Harper High School
City of Chicago SD 299	Harvard Elem School
City of Chicago SD 299	Henderson Elem School
City of Chicago SD 299	Hope College Prep High School
City of Chicago SD 299	Hubbard High School
City of Chicago SD 299	Hyde Park Academy High School
City of Chicago SD 299	Juarez Community Academy HS
City of Chicago SD 299	Julian High School
City of Chicago SD 299	Kelly High School
City of Chicago SD 299	Kelvyn Park High School
City of Chicago SD 299	Kennedy High School
City of Chicago SD 299	Kershaw Elem School
City of Chicago SD 299	Lake View High School
City of Chicago SD 299	Lavizzo Elem School
City of Chicago SD 299	Manley Career Academy High School
City of Chicago SD 299	Marshall Metropolitan High School
City of Chicago SD 299	Mather High School
City of Chicago SD 299	McKay Elem School
City of Chicago SD 299	Medill Elem School
City of Chicago SD 299	Morton Elem Career Academy
City of Chicago SD 299	New Millenium Health High School
City of Chicago SD 299	North Lawndale Charter HS
City of Chicago SD 299	North-Grand High School

District Name	School Name
City of Chicago SD 299	Parkman Elem School
City of Chicago SD 299	Parkside Elem Community Academy
City of Chicago SD 299	Phillips Academy High School
City of Chicago SD 299	Phoenix Military Academy HS
City of Chicago SD 299	Prosser Career Academy HS
City of Chicago SD 299	Raby High School
City of Chicago SD 299	Reed Elem School
City of Chicago SD 299	Richards Career Academy HS
City of Chicago SD 299	Robeson High School
City of Chicago SD 299	Roosevelt High School
City of Chicago SD 299	Ross Elem School
City of Chicago SD 299	Schiller Elem School
City of Chicago SD 299	School Of Leadership High School
City of Chicago SD 299	School Of Technology High School
City of Chicago SD 299	School Of The Arts High School
City of Chicago SD 299	Schurz High School
City of Chicago SD 299	Senn High School
City of Chicago SD 299	Sherman Elem School
City of Chicago SD 299	Simeon Career Academy High School
City of Chicago SD 299	Steinmetz Academic Centre HS
City of Chicago SD 299	Sullivan High School
City of Chicago SD 299	Tilden Career Community Academy HS
City of Chicago SD 299	Washington, G High School
City of Chicago SD 299	Wells Community Academy HS
City of Chicago SD 299	Yale Elem School
City of Chicago SD 299	Youth Connections Charter HS
Clay City CUSD 10	Clay City High School
Cobden SUD 17	Cobden High School
Crete Monee CUSD 201U	Crete-Monee High School
CUSD 300	Dundee-Crown High School
Decatur SD 61	Eisenhower High School
Decatur SD 61	MacArthur High School
DePue USD 103	DePue High School
Dongola USD 66	Dongola High School
Dupo CUSD 196	Dupo High School
East Alton-Wood River CHSD 14	East Alton-Wood River High Sch
East St Louis SD 189	East St Louis Senior High School
East St Louis SD 189	SIU Charter Sch of East St Louis
Egyptian CUSD 5	Egyptian Sr High School
Eldorado CUSD 4	Eldorado High School
Elverado CUSD 196	Elverado High School
Georgetown-Ridge Farm CUD 4	Georgetown-Ridge Farm High School
Granite City CUSD 9	Granite City High School
Griggsville-Perry CUSD 4	Griggsville-Perry High School
Harvard CUSD 50	Harvard High School

District Name	School Name
Hoopeston Area CUSD 11	Hoopeston Area High School
Iroquois West CUSD 10	Iroquois West High School
J S Morton HSD 201	J Sterling Morton East High Sch
J S Morton HSD 201	J Sterling Morton West High Sch
Joliet Twp HSD 204	Joliet Central High School
Kankakee SD 111	Kankakee High School
Lawrence County CUD 20	Lawrenceville High School
Madison CUSD 12	Madison Senior High School
Meredosia-Chambersburg CUSD 11	Meredosia-Chambersburg High Sch
Meridian CUSD 101	Meridian High School
Mt Vernon Twp HSD 201	Mount Vernon High School
Murphysboro CUSD 186	Murphysboro High School
Norris City-Omaha-Enfield CUSD 3	Norris City-Omaha-Enfield H S
North Chicago SD 187	North Chicago Community High Sch
North Chicago SD 187	North Elementary School
North Greene CUSD 3	North Greene High School
Odin CHSD 700	Odin High School
Ohio CHSD 505	Ohio Community High School
Patoka CUSD 100	Patoka Sr High School
Peoria Heights CUSD 325	Peoria Heights High School
Peoria SD 150	Manual High School
Peoria SD 150	Peoria High School
Peoria SD 150	Trewyn Middle School
Peoria SD 150	Tyng Primary School
Peoria SD 150	Woodruff High School
Piano CUSD 88	Piano High School
Proviso Twp HSD 209	Proviso East High School
Proviso Twp HSD 209	Proviso West High School
Rantoul Township HSD 193	Rantoul Twp High School
Rich Twp HSD 227	Rich Central Campus High School
Rich Twp HSD 227	Rich East Campus High School
Rich Twp HSD 227	Rich South Campus High School
Rockford SD 205	Auburn High School
Rockford SD 205	Guilford High School
Rockford SD 205	Jefferson High School
Rockford SD 205	Rockford East High School
Round Lake CUSD 116	Round Lake Senior High School
Sandoval CUSD 501	Sandoval Sr High School
Scott-Morgan CUSD 2	Bluffs High School
SD U-46	Elgin High School
SD U-46	Larkin High School
SD U-46	Streamwood High School
South Central CUD 401	South Central High School
Springfield SD 186	Lanphier High School
Springfield SD 186	Springfield Southeast High Sch

District Name	School Name
St Anne CHSD 302	St Anne Comm High School
Thornton Fractional Twp HSD 215	Thornton Fractnl No High School
Thornton Fractional Twp HSD 215	Thornton Fractnl So High School
Thornton Twp HSD 205	Thornridge High School
Thornton Twp HSD 205	Thornton Township High School
Thornton Twp HSD 205	Thornwood High School
Tri Point CUSD 6-J	Tri-Point High School
V I T CUSD 2	V I T Sr High School
Venice CUSD 3	Venice Elem School
Virginia CUSD 64	Virginia Sr High School
Waltonville CUSD 1	Waltonville High School
Waukegan CUSD 60	Waukegan High School
Webber Twp HSD 204	Webber Twp High School
West Central CUSD 235	West Central High School
West Richland CUSD 2	West Richland High School
Zeigler-Royalton CUSD 188	Zeigler-Royalton High School
Zion-Benton Twp HSD 126	Zion-Benton Twnshp High Sch

Appendix E2-2

Illinois Partnership Zone Supplemental Materials

I. Proposed Timeline for Implementation

FY 2010 activities would consist of planning for the intervention model; evaluation of existing principal and all other administrators and staff; selection and, as applicable, hiring of the leadership team, principal and other administrators and staff; and capacity building in preparation for implementation of the intervention model. Prior to the commencement of the first school year of intervention implementation, the Lead Partner would engage in intensive training for all staff (e.g., provide five weeks of training during the summer prior to implementation of the intervention model).

In FY 2011 and FY 2012, the chosen intervention model would be implemented. The model would focus on a phase-out of state support and services from the outset, beginning in FY 2013 and continuing through FY 2014. For example, intensive coaching support would be provided in the first two years, but would be phased out in subsequent years. Also, targeted professional development will be most intense in the first few years.

October -December 2009	• Convene various stakeholders to discuss initiative; raise interest and concerns. • Examine requirements for Section 1003(g) School Improvement funds. • ISBE issues RFSP for and prequalifies Lead and Supporting Partners.
January - March 2010	• Illinois Partnership Zone districts selected by ISBE. • Illinois Partnership Zone districts form team consisting of Lead and Supporting Partners; develop detailed plan for Illinois Partnership Zone implementation.
March - April 2010	• ISBE reviews and approves or requires revisions to Illinois Partnership Zone proposals received in response to the Section 1003(g) School Improvement RFP. Upon approval, full Section 1003(g) School Improvement grant funds provided to implement Illinois Partnership Zone activities.
April - August 2010	• Intervention planning, capacity building, evaluation of existing staff, professional development.
September 2010 - August 2011	• First school year of implementation of the intervention model.
September 2011 - August 2012	• Second school year of implementation of the intervention model.
September 2012 - August 2013	• Third school year of implementation of the intervention model: • Phase-out of Lead Partner services commences.
September 2013 - August 2014	• Fourth year of implementation of the intervention model (contingent upon available funding): • Phase-out of Lead Partner services accelerates.

II. Illinois Partnership Zone Overview of Lead and Supporting Partners

The Lead and Supporting Partners identified on this Appendix have been prequalified by the State Superintendent to support interventions in Illinois Priority Schools through the Illinois Partnership Zone initiative. These Partners have been prequalified to contract directly with a school district or with the State Board of Education. As of January 19, 2010, the Illinois State Board of Education has posted a notice of award in the Illinois Procurement Bulletin, and submitted the notice of award to the Illinois Procurement Board, all as required by the Illinois Procurement Code (see 30 ILCS 500/1 et seq.). Under the Illinois Procurement Code, the Procurement Policy Board has up to thirty days to review the award and request additional information from the agency. 30 ILCS 500/5-30.

ISBE intends to undertake additional Lead and Supporting Partner procurements to expand and update the list of pre-qualified entities in future years of the Partnership Zone initiative.

The regions referred to in the chart below refer to ISBE Support Regions in which the entity is prequalified to serve, as shown on the map at the end of these tables.

Lead Partners:

Lead Partner and Service Area	Overview of Implementation Model	Record of Effectiveness
Academy for Urban School Leadership (AUSL) Regions I-A, I-B-B, I-B-C, I-B-D, II, III, and IV	AUSL's mission is to improve student achievement in high-poverty, chronically failing schools through dramatic interventions to comprehensively reset failing schools. In AUSL's Turnaround school model, the district closes a failing school at the end of the school year and reopens it after the summer under AUSL's management. Admission is open to any former student who wishes to attend, as well as all students in the school's geographic boundary area. AUSL replaces the principal with an individual selected by and accountable to AUSL, as well as the district, and also brings in a cohort of specially trained new teachers from AUSL's teacher residency program. AUSL evaluates all incumbent teachers and staff before re-hiring any who are interested in remaining. Typically, more than half of the school's incumbent teachers and staff are replaced.	Since 2002 AUSL has launched eight Turnaround elementary schools and one Turnaround high school in Chicago. AUSL is still managing all of these schools, and all but one have made steady year-to-year gains in student achievement. AUSL has also developed many strong collaborative partnerships, including key partnerships with Chicago Public Schools, Serve Illinois (AmeriCorps), New Leaders for New Schools, City Year, and university partners (National Louis University, Erikson Institute, and the University of Illinois at Chicago).

Lead Partner and Service Area	Overview of Implementation Model	Record of Effectiveness
America's Choice, Inc., and its subcontractor ACT, Inc. All 10 ISBE Support Regions	America's Choice will provide two programs: (1) the America's Choice Comprehensive Intervention Model in elementary schools, designed to prepare all students to enter middle school core instructional programs without need for remediation, and (2) the Rigor & Readiness Comprehensive Intervention Model in middle and high schools, designed to support students' development of college and career readiness. These programs include: an examination system aligned with state standards, a rigorous core curriculum with end-of-course examinations aligned to college and career readiness standards, instructional materials aligned to the curriculum, systematic monitoring of student progress, and "safety net" programs designed to accelerate learning.	States and school districts have successfully implemented America's Choice programs throughout the country, including in Georgia, New York, Florida, Arkansas, and Maryland. A study of Rochester, New York schools found that students in America's Choice schools made significantly higher achievement gains than students in other schools, and the performance gap for minority students was narrowed significantly in both reading and math. Also, a study by outside reviewers found that students in America's Choice schools scored an average of 9 points higher on reading comprehension tests, and 7 points higher on language scales.
Consortium for Educational Change (CEC) Regions I-B-B, I-B-C, I-B-D, I-C, II, III, IV, V, and VI	CEC proposes to implement a School Transformation Model, which will focus on accelerating student learning by aligning resources of the school and district to: add time for student learning and teaching; share leadership through teams; support teacher practice; and establish clear and ambitious performance targets for everyone. This model would be implemented in a school or district using a work plan with the following four steps: -Set goals and standards; -Implement structures and plans; -Implement a learning environment; and -Become results focused.	CEC has more than 20 years of experience in working with Illinois school systems, helping them construct communities of learners and breaking down traditional hierarchies so that all members of the community contribute to the school system. CEC's work is supported by subcontractors and partners who are leaders in union/management collaboration, teacher and school leadership development, classroom instruction, curriculum, and standards assessment. In CEC's years of experience, it has helped schools improve students' grade-level proficiency, improve performance on state assessments, and work toward closing achievement gaps. For example, in CEC's past work with an ethnically diverse suburban Chicago school district, CEC helped increase the percentage of African American eighth-graders who met or exceeded ISAT standards in math from 40% in 2004 to 71% in 2009.
Diplomas Now, a program of Johns Hopkins University Region I-A	The Diplomas Now model integrates four key elements: -Effective whole school reform with instructional, organizational, student, teacher and administrative support components; -A teacher-friendly early warning data system tied to identify students in need of prevention, intervention and recovery strategies;	In the 2008-2009 school year, the Diplomas Now model was implemented in a large, high-poverty middle school in Philadelphia. Working in partnership with school leadership and teachers, this school successfully made Adequate Yearly Progress for the first time in four years and the Diplomas Now model resulted in a 50% decrease in the number

Lead Partner and Service Area	Overview of Implementation Model	Record of Effectiveness
	-A team that works closely with teachers and administrators to provide targeted and intensive supports; and -A team-based organizational structure and collaborative work environment.	of students in grades 6-8 who were off-track to graduate based on the following key indicators: -Attendance (52% decrease in students with less than 80% attendance); -Behavior (45% decrease in students with three or more negative behavior comments); and -Course failure in Math and English (83% decrease in the number of students receiving an F in Math and 80% decrease in the number of students receiving an F in English).
EdisonLearning Regions I-A, I-B-B, I-B-C, I-B-D, I-C, II, III, IV, and V.	EdisonLearning proposes to serve as a national and on-site team of specialists dedicated wholly to partnership schools' curriculum, instruction and academic achievement. EdisonLearning will develop programs customized to meet the needs of each partnership school, but comprehensive models include several general components, such as: leadership development, school organization and scheduling support; learning environment management tools to promote a school culture in which students learn effectively; curriculum management and support tools that align to Illinois standards; intensive on-site and national professional development; benchmark assessment systems to track student progress; quality monitoring and management; and support for families who may not have considered the possibility of higher education.	Since 1995, EdisonLearning has partnered with school districts across the country to assist them in meeting student achievement goals. Throughout its history, EdisonLearning has had the opportunity to partner with numerous clients having diverse student bodies, largely serving clients in high-minority, low-income settings (the average school in an EdisonLearning Partnership is 87% minority and 65% socioeconomically disadvantaged). Data and independent reports (including a notable RAND Corporation report released in 2005), confirm that schools partnering with EdisonLearning have improved their students' academic performance over time. The American Institute for Research stated in a 2006 report that EdisonLearning was the most thoroughly researched comprehensive school reform organization in the country.

Lead Partner and Service Area	Overview of Implementation Model	Record of Effectiveness
Illinois Association of Regional Superintendents of Schools (IARSS): representing a consortium of regional offices and intermediate service centers All 10 ISBE Support Regions	IARSS proposes to: -Administer a needs assessment of the district and school; -Coordinate with school and community "stakeholders" (i.e. parents, businesses, community organizations, and public officials) to develop a school intervention model; and -Direct resources and expertise toward intervention planning, capacity building, evaluation of existing staff, professional development, and implementation of the intervention model.	IARSS's Regional Offices of Education (ROE) and Intermediate Service Centers (ISC) have a proven track record of working with underperforming schools through delivering support, coaching and technical assistance to promote academic achievement. The ROE/ISCs specifically work with schools that are identified as not meeting Adequate Yearly Progress and are on the State/Federal Academic Early Warning and Academic Watch status lists. Schools that the ROE/ISCs have worked with have achieved gains in academic growth ranging from 7% to 42% in both reading and math on state and local assessments over a three year period and have been removed from warning or watch status, and/or made consistent incremental gains each year. These schools have a range of 200 to 2,300 students and represent a wide range of communities and subgroups.
Learning Point Associates and its subcontractor, Pivot Learning Partners All 10 ISBE Support Regions	Learning Point's plan focuses on collaborative development and implementation of turnaround strategies to improve student achievement and build the capacity of school leaders and staff to sustain improvement. The proposed turnaround design has six general components: a core school leadership team; a research-based diagnostic needs assessment; an instructional model to engage teachers in daily review of student data and weekly collaboration with other teachers; a parent and community engagement plan; a variety of support tools and expert coaching; and targeted intervention for special needs populations.	Learning Point has a long history of working with a broad range of districts, including chronically low-performing districts, to design, implement, evaluate, and monitor improvement and transformation efforts. In its past work with low-performing and high-need schools, Learning Point has helped schools achieve improved student test scores, improved national standing, and increased success in meeting academic standards.

Lead Partner and Service Area	Overview of Implementation Model	Record of Effectiveness
Success For All Foundation, Inc. (SFAF) All 10 ISBE Support Regions	SFAF will provide comprehensive turnaround models for target schools through a multi-dimensional set of strategies, focused on: -Leadership support and training for school administrators, staff and community to assist in improving student achievement and addressing school-specific issues; -Professional development and support in core learning areas (reading and math); -Development and implementation of a school-specific reform structure to address the needs of students showing lack of progress in academic, social, and behavioral realms; -Structured communication between schools and SFAF's Illinois Team Manager and consultants.	SFAF programs have been used in over 1,800 schools during the past 20 years, improving the achievement of more than 2 million students. Over 52 studies have assessed the effectiveness of SFAF's program, and independent reviews have consistently found that implementation of SFAF's programming resulted in significant increases in student achievement in various settings. A recent study of 22 comprehensive educational reform programs placed SFAF's program, and only one other, in the highest category awarded.
Talent Development, a program of Johns Hopkins University Regions I-A, I-B-B, I-B-C, I-C, II, III and V	Talent Development proposes to implement two separate but interrelated programs: the Talent Development Middle Grades (TDMG) program for middle schools and the Talent Development High Schools (TDHS) program for high schools. Both programs focus on organizing students into smaller learning communities headed by teaching teams to create a successful learning environment with high student expectations, and to develop and promote the effectiveness of teachers and school leaders. The organization also seeks to promote community and family involvement and engagement through parenting assistance; initiatives to enhance family participation in and support of students, schools, and school programs; and coordination of school and community services and resources.	For the past 15 years, Talent Development has helped schools across the country to reorganize in ways that promote strong relationships for students and adults; implement innovative, evidence-based curricula and instructional strategies; and build professional communities that support distributed leadership, shared decision-making, and increased capacity for continual improvement. Talent Development offers research-based strategies developed by Johns Hopkins University, paired with intense technical assistance from master educators, to facilitate improvement in struggling schools. Schools that implement Talent Development reforms have seen increases in student attendance, reductions in suspension rates, and increased scores on student achievement tests.

Supporting Partners:

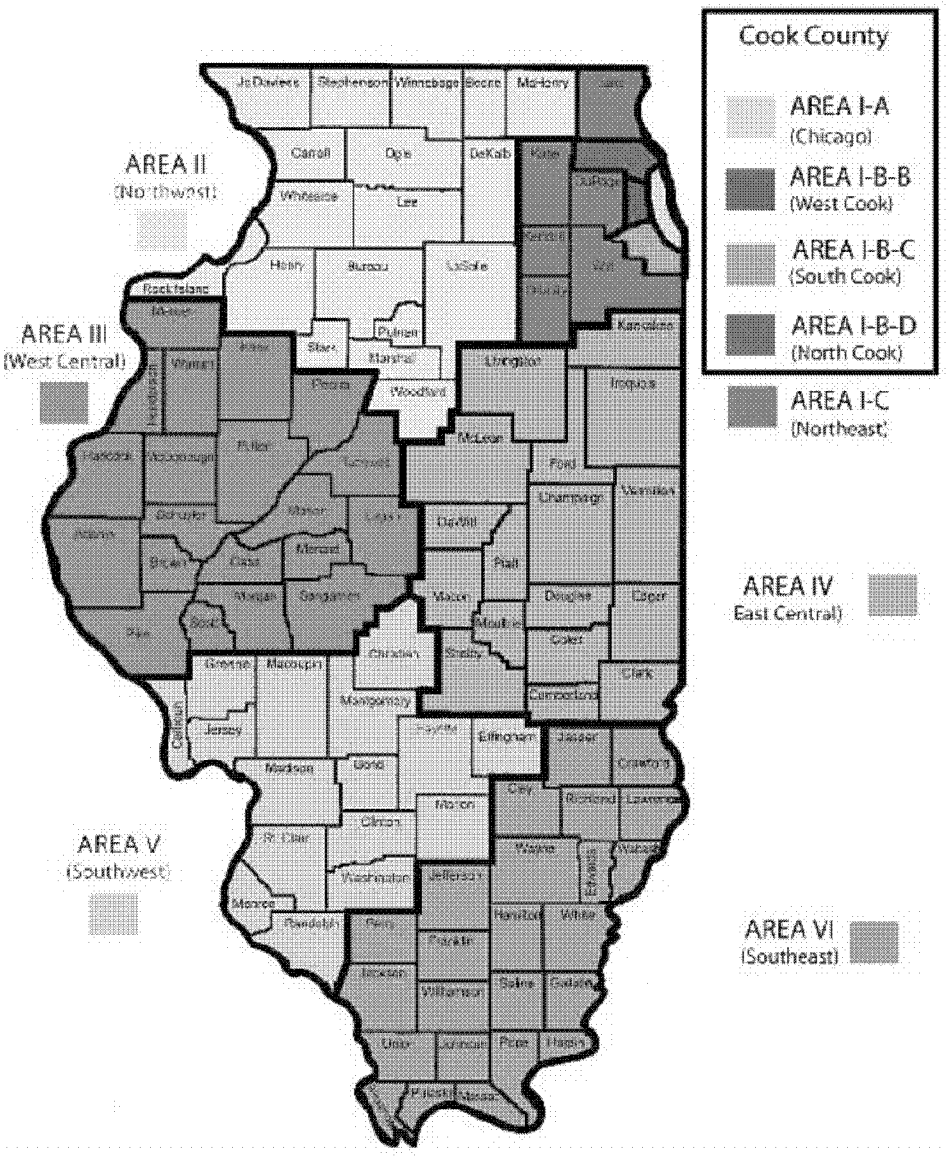
Supporting Partner	Human Capital or District Capacity Building Strategies	Record of Effectiveness
Academy for Urban School Leadership (AUSL) All 10 ISBE Support Regions	AUSL proposes to share its expertise and support the efforts of Lead Partners in the following areas: -Intervention and transformation of underperforming schools through AUSL's Transformation school model; -Operation of a teacher residency training program; -Focused projects related to school management and teacher development; and -Advice and assistance to districts and Lead Partners. AUSL would assist clients in decision-making and capacity building through providing opportunities to observe AUSL's models in action, assisting clients to design their own adaptations of the AUSL model, and providing coaching and training support.	Over the last 8 years, AUSL has built a track record of success in launching and managing turnaround schools in Chicago. AUSL's work has resulted in dramatic gains in student achievement in Turnaround schools, including increasing the percentage of students meeting state ISAT standards and improving school cultures and parent involvement. Through its teacher residency training program, AUSL has trained over 300 new teachers, with 85% still working in education. AUSL has also developed many strong collaborative partnerships, including key partnerships with Chicago Public Schools, Serve Illinois (AmeriCorps), New Leaders for New Schools, City Year, and university partners (National Louis University, Erikson Institute, and the University of Illinois at Chicago).
Consortium for Educational Change (CEC) All 10 ISBE Support Regions	CEC proposes to provide supporting services for human capital including: establishing an intensive induction and mentoring program for teachers and administrators; establishing meaningful performance evaluation and development systems that fairly and accurately differentiate teachers, based in part on student achievement; and establishing meaningful principal and administrator evaluation systems. CEC also proposes to build school board and district central office capacity with respect to: collaborative relationship-building among district anchors (i.e. school board, administration, and local teachers' union); and leadership development and training.	CEC has more than 20 years of experience in working with Illinois school systems, helping them construct communities of learners and breaking down traditional hierarchies so that all members of the community contribute to the school system. CEC's work is supported by subcontractors and partners who are leaders in union/management collaboration, teacher and school leadership development, classroom instruction, curriculum, and standards assessment. CEC has developed ongoing relationships with a number of districts and schools throughout Illinois, including those that have not made Yearly Academic Progress and others that are restructuring. CEC has helped districts and schools to implement comprehensive reforms and to develop and implement school improvement plans. Through its work, CEC has helped schools achieve significant improvements in district, school, and student performance on the ISAT.
Illinois Association of Regional	IARSS proposes to: -Implement human capital strategies, such as	IARSS's Regional Offices of Education (ROE) and Intermediate Service Centers

Supporting Partner	Human Capital or District Capacity Building Strategies	Record of Effectiveness
Superintendants of Schools (IARSS): representing a consortium of regional offices and intermediate service centers All 10 ISBE Support Regions	reforming district recruitment and hiring policies and establishing intensive induction and mentoring programs for teachers and administrators; -Establish meaningful performance evaluation and development systems that fairly and accurately differentiate teachers based on student achievement, and train administrators in their use; and -Establish meaningful principal and administrator evaluation systems that incorporate considerations of school climate and are based, in part, on student achievement.	(ISC) have a proven track record of working with underperforming schools through delivering support, coaching and technical assistance to promote academic achievement. The ROE/ISCs specifically work with schools that are identified as not meeting Adequate Yearly Progress and are on the State/Federal Academic Early Warning and Academic Watch status lists. Schools that the ROE/ISCs have worked with have achieved gains in academic growth ranging from 7% to 42% in both reading and math on state and local assessments over a three year period and have been removed from warning or watch status, and/or made consistent incremental gains each year. These schools have a range of 200 to 2,300 students and represent a wide range of communities and subgroups.
Illinois Association of School Boards (IASB), and its subcontractors Illinois Association of School Administrators, Illinois Association of School Business Officials, and Illinois Principals Association All 10 ISBE Support Regions	IASB will provide expertise and support to Lead Partners, schools, and school districts over a 5 year period. Support will focus on training for superintendents, principals, school business officials, and other administrators, including targeted professional development activities and intensive coaching.	IASB provides regional and in-district professional development activities for school board members. In 2009, more than 1,300 school board members attended one or more of IASB's sessions. During 2008, IASB staff worked with boards of education, superintendents, staff, and community members in 44 districts where either the district or one or more schools within the district where in state academic warning or watch status. Based on 2008 data, 20 past-participating schools were no longer in warning or watch status at the school or district level. In 2009, work was done in 35 similar districts.
Learning Point Associates and its subcontractor, Pivot Learning Partners All 10 ISBE Support Regions	Learning Point will work with turnaround school districts to guide them toward a systematic solution that is successful, both in building capacity and aligning capital management function in the short term, and in developing sustainable, long-term improvements in teaching and learning. Learning Point and its partner have expertise in developing school-specific strategies in: reforming district recruiting, hiring, and retention practices; establishing an alternative incentive and compensation system; creating an intensive induction and mentoring program; establishing a meaningful	Learning Point has a long history of working with a broad range of districts, including chronically low-performing districts, to design, implement, evaluate, and monitor improvement and transformation efforts. In its past work with low-performing and high-need schools, Learning Point has helped schools achieve improved student test scores, improved national standing, and increased success in meeting academic standards.

Supporting Partner	Human Capital or District Capacity Building Strategies	Record of Effectiveness
	performance evaluation system; and providing training and coaching for capacity building.	
New Leaders for New Schools Region I-A	Recruit, identify, and prepare up to 35 Partnership Zone principals over the course of a planning period and two implementation years. The organization's work will focus on an intensive residency model, which includes the field's leading curriculum and training program for aspiring principals and a year of hands-on skills development and practice. New principals are also intensively supported during their entry into a school and during their first school year by an experienced coach.	Over the past six years, New Leaders has partnered with the Academy for Urban School Leadership to train and provide principals to lead turnaround schools. Since 2001, New Leaders has trained and supported more than 550 aspiring principals in urban areas across the country. The programs have a rigorous selection process, accepting fewer than 7% of applicants. Principals who have completed the program are highly-qualified and greatly diverse (participants range in age from 25 to 58 and 55% are African American). New Leaders currently supports 123 principals in Chicago, serving more than 70,000 children. New Leaders principals have achieved dramatic improvement in their schools. Students in elementary and middle schools led by New Leaders principals for at least three years are making academic gains faster than comparable students in their districts. Also, the most improved or highest performing schools in 5 cities and 2 states have been led by New Leaders Principals.
Teach For America (TFA) Region I-A	TFA proposes to provide an entire staff of high-quality teachers for a turnaround school in Chicago. The teachers would come from TFA's corps of first and second year teachers and its base of veteran alumni teachers. TFA recruits and selects talented and diverse new teachers from among the nation's top graduating college seniors, and then trains them through an intensive residential summer institute. TFA also provides ongoing support and professional development to its teachers, and connection and leadership opportunities through its alumni network.	TFA has been recruiting, training, and supporting teachers in low-income classrooms since 1990 and has a track record of making a tremendous impact on student achievement. In Chicago, 500 TFA alumni currently work in education—350 as master teachers, 40 as assistant principals, 30 as school leaders, 22 as public schools administrators, and many as non-profit employees. In 2008, the Urban Institute found that TFA corps members improve student achievement at two to three times the rate of other teachers in the same schools, including veteran teachers with three or more years of experience.
The Associated Colleges of Illinois (ACI) Regions I-A, I-B-B, I-	ACI proposes to address human capital strategy by reforming district recruitment and hiring policies through a High-Need School Internship (HNSI) program. The HNSI program will develop a pool of highly	In pilot programs at six Illinois sites, HNSI programs have been shown to motivate pre-service teachers to seek jobs in high-need schools and to develop skills and dispositions that can make teachers

Supporting Partner	Human Capital or District Capacity Building Strategies	Record of Effectiveness
B-C, I-B-D, I-C, II, III, IV, and V	qualified teachers, prepared specifically for high-need districts. By partnering with its member colleges and universities, ACI will host LEAs to operate six-week intensive summer internship experiences that prepare and position pre-service teachers to maintain ongoing relationships with their host LEAs . Upon graduation, top candidates from the HNSI program will be offered positions in the host LEAs, as those positions become available.	more successful in high-poverty, hard-to-staff schools. Research has shown that internships that foster ongoing relationships with host LEAs can better prepare teachers to successfully assume jobs in those districts, and that those teachers may begin their first year jobs with skills and experience more commonly associated with second-year teachers. ACI has been addressing teacher shortage and quality issues since 2002, when it received a federal grant to fund an initiative to improve teaching and learning in high-poverty schools. ACI offers a portfolio of programs that address teacher recruitment, preparation, and retention.
The Federation for Community Schools, and its subcontractors: Dr. Barbara Radner, Depaul University Center for Urban Development; and David Flatley, Columbia College Center for Arts Programs Regions I-A, I-B-B, I-B-C, I-B-D, I-C, II, III, and IV	The organization will work with lead partners to develop a low-performing school into a "community school" by providing robust enrichment programs before and after school. These programs are an extension, not an add-on, to the regular school day and will address academics and curriculum, healthy minds and bodies, parent support, and community engagement. The programs are implemented in partnership with the in-school day staff to create programming that supports skills and issues being addressed during the regular school day and provides supplemental enrichment programs like arts, music, and physical fitness.	The Federation is the nation's only statewide coalition working on community schools, and is the most experienced and broad-reaching of such organizations in Illinois. Although the community school model is a newer concept, Chicago Public Schools have more than 150 community schools (out of its 600 public schools) and has already seen the benefit of the community school model through improvement in test scores, grades, student attitudes toward school, parent involvement and support, safety, and improved immunization rates, fitness levels, and overall well-being among students. Research shows that community schools have many positive impacts including statistically significant increases in ISAT math and reading scores, a reported 70% increase in students' completion of homework, fewer student behavioral incidences, and increased feelings of connectedness reported in parent surveys.

System of Support Regions



III. Illinois Partnership Zone: Transformation Criteria

1. School culture and climate.

   A. Establish a safe, orderly environment that is free from threat of physical harm and conducive to teaching, learning, and schoolwide programs and policies to help maintain this environment.

   B. Create a climate of high expectations for success.

   C. Clearly articulate the school's mission so that staff share an understanding of and commitment to the instructional goals, priorities, assessment procedures, and accountability.

   D. Provide ongoing mechanisms for family and community engagement. Ensure that parents understand and support the school's basic mission and are given the opportunity to play an important role in helping the school to achieve this mission.

   E. Provide wrap-around services for low-income students so educators can focus on teaching and learning while ensuring students' social, emotional, and physical needs are met.

2. Developing teacher and school leader effectiveness.

   A. Designate a principal or other school-level leader who will act as an instructional leader. Depending on the intervention model, the "school-level leader" may be a principal designated by the district, a leader working under the direction of a Lead Partner, or a person hired by the Lead Partner.
   The model must either:*
   - Replace the principal who led the school prior to commencement of the transformation model; or
   - Use a fair and consistent method to evaluate the effectiveness of the existing principal and determine whether the principal can serve as the instructional leader for the intervention.

   ** Note: Based on the U.S. Department of Education's requirements for the Section 1003(g) School Improvement Grant program, for interventions in "Tier I" or "Tier II" schools the principal must be replaced as part of the "Turnaround" or "Transformation" model. However, if the principal was replaced during the prior two years as part of a continuing intervention, that principal can remain at the school.*

   B. Over the course of the intervention, the school must make a transition to a distributed leadership model with a highly capable leadership team working to build a cohesive, professional teaching culture. The plan for a distributed leadership team must include the school-level leader and teachers with augmented school roles.

   C. In coordination with the Lead Partner, the district and school-level leader must use evaluations that are based in significant measure on student growth:
   - to improve teachers' and school leaders' performance;

- identify and reward effective performance; and
- identify and address ineffective performance.

D. Provide relevant, ongoing, high-quality job-embedded professional development.

E. Implement strategies designed to recruit, place, and retain high-quality staff, including intensive induction and mentoring support for teachers.

3. Comprehensive instructional reform strategies.

A. 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 the Illinois Learning Standards. The instructional programs must include:
- development and use of frequent formative assessments permitting rapid-time analysis, feedback, and targeted instruction;
- other data-driven instructional systems and strategies.

B. Differentiate instruction to meet students' needs, including personalized academic and non-academic support services.

C. Integrate all programs that have an impact on instruction:
- Identify all state, district, and school-level instructional and professional development programs;
- Determine whether each program will be eliminated or integrated with the intervention model; and
- Ensure all remaining and new programs directly align with the objectives and structure of the intervention model.

4. Extending learning time.

A. Provide more time for students to learn core academic content by:
- expanding the school day, the school week, or the school year;
- increasing instructional time for core academic subjects during the school day; and
- allocating a significant amount of classroom time to instruction in the essential skills.

B. Provide more time for teachers to collaborate.

C. Provide more time for enrichment activities for students.

5. Providing operating flexibility.

Give the school sufficient operating flexibility to implement fully a comprehensive approach to substantially improve student achievement outcomes. In particular, the school-level leader must have:
- Authority to select and assign staff to the school;
- Authority to control school calendar and scheduling; and
- Control over financial resources necessary to implement the intervention model.

IV. Illinois Partnership Zone: Human Capital Strategies

9. Reform district recruitment and hiring policies to support the work of the Illinois Partnership Zone.

10. Establish placement policies that support Illinois Partnership Zone schools:

    - Prioritize interview and hiring decisions for Illinois Partnership Zone schools,
    - Prohibit forced placements into Illinois Partnership Zone schools.

11. Establish incentives for administrators and teachers to work in Illinois Partnership Zone schools, and work with Lead and Supporting Partners to bring top talent to these schools.

12. Establish compensation systems in Illinois Partnership Zone schools that provide performance-based incentives (either individual or collective), particularly if state or federal resources are available to support such programs.

13. Establish an intensive induction and mentoring program for Illinois Partnership Zone teachers and administrators.

14. Establish meaningful performance evaluation and development systems that fairly and accurately differentiate teachers based in part on student achievement, and train administrators and other evaluators in its use.

15. Establish meaningful principal and other school administrator evaluation systems that incorporate considerations of school climate and are based, in part, on student achievement.

16. Establish one or more residency sites within the district where teachers and administrators can participate in an intensive residency program preparing them to serve in Illinois Partnership Zone schools.

    - ISBE may work with the districts and Lead and Supporting Partners to establish a statewide program to attract the "best of the best" from traditional undergraduate, alternative programs, and the existing educator workforce to work in low-performing schools.
    - Eventually, these residency sites will help provide a pipeline of educators to support both existing and new Illinois Partnership Zone schools.

Appendix E2-3

Prior LEA Interventions

The following chart contains information on turnaround efforts since SY2004-2005 as self-reported by Participating LEAs.

Illinois Historic Performance on Turnaround		
Schools and/or Districts Since SY2004-2005[10]	**Approach Used**	**Results and Lessons Learned**
Murphysboro CUSD 186	Transformation Model: -Principal replaced. -Began staff development on Professional Learning Communities. -Increase planning and use of data to monitor student progress and guide instruction.	School culture is beginning to change and consistency of leadership will be critical for future progress.
Rockford Public Schools	Transformation Model: -2 principals replaced in priority schools. -Curricular alignment and remedial lessons implemented. -Developed formative and summative assessments to ensure students learning required content. -Increased focus on parental involvement. -Implemented comprehensive professional development for teachers and principals. -Developed and implemented teacher/administrator accountability system based on student performance.	These changes were largely implemented during the 2009-10 school year. The district is committed to pursuing systematic change in teaching and learning. Transformation efforts will continue to focus on curriculum alignment to state standards, embedded professional development, robust teacher and leadership evaluations based on student performance, data systems to track student development, comprehensive student assessments, and effective turn-around strategies for low-performing schools.
Kankakee School District	Transformation Model: -Two principals replaced. -Implemented high-quality embedded professional development for staff. -Increased length of school day.	These changes have had little to no effect on student learning based on assessment data to date.
Decatur SD 61	Transformation Model: Two high schools implemented a variety of programs in the last five years: -Implemented a restructuring plan to change school governance, including hiring an assistant superintendant of secondary schools. -Regular observation of teachers in classrooms. -On-site professional development from an	Graduation rates have increased from 69.2% to 86.4% at one school, and from 79.1% to 89.4% at the second school. Although many efforts have been undertaken, data indicates that much more intensive efforts are needed to eliminate the achievement gap. The leadership and teachers are continuing efforts to improve student

[10] Table heading "# Schools Since SY 2004-05" changed to "Schools/Districts Since SY 2004-05" and chart structure altered to conform to data available.

Illinois Historic Performance on Turnaround		
Schools and/or Districts Since SY2004-2005[10]	**Approach Used**	**Results and Lessons Learned**
	instructional specialist in each school. -More rigorous curriculum and additional test preparation. -Compiled student data in centralized system; teachers trained to use data to guide instruction.	achievement.
Thornton Fractional Township High School, District 215	Transformation Model: -Completed year of restructuring including implementing a new "school-within-a-school" model for all 9th grade students. -Implemented rigorous research-based curriculum for all students in English and math.	Positive results have been seen after implementation of the new programs based on review of PSEA scores, student transcripts, and EPAS data.
Chicago Public Schools	Turnaround Model: -Used in 11 elementary schools and 2 high schools. Restart Model: -Closed and re-opened several schools employing different governance structures and school types (e.g. CPS contract school model and CPS performance school model). School Closure Model: -Closed several schools, primarily for enrollment and facility usage reasons. Transformation Model: -Replaced the principal and provided intensive professional development to staff and the principal in at least four schools.	Efforts to transform lowest performing schools have been most effective where students have not been displaced and the school staff is entirely replaced (the turnaround and restart models). These models enable school administrators to create a new school climate with staff members who are invested in turn-around efforts. Successful interventions require that improvements be made to the school's culture and climate and touch on every aspect of a school's operations, including facility, governance, curriculum, social/economic issues, safety and security, hiring, teacher and staff participation in decision making, and staff development. Research has shown that closing a school and sending students to another school (school closure method) did not, on average, impact student achievement. This is especially true where students move from one low-performing school to another. As a result, the school board has taken steps this year to ensure that students whose schools are closed are transferred to a higher-performing school, and to provide transition services at the receiving school.
West Central CUSD # 235	Transformation Model: -Replaced principal. -Developed 16-session Teacher Academy to provide weekly professional development on a range of	The new principal was not effective and will likely be replaced prior to the 2010-11 school year. Effectiveness of professional

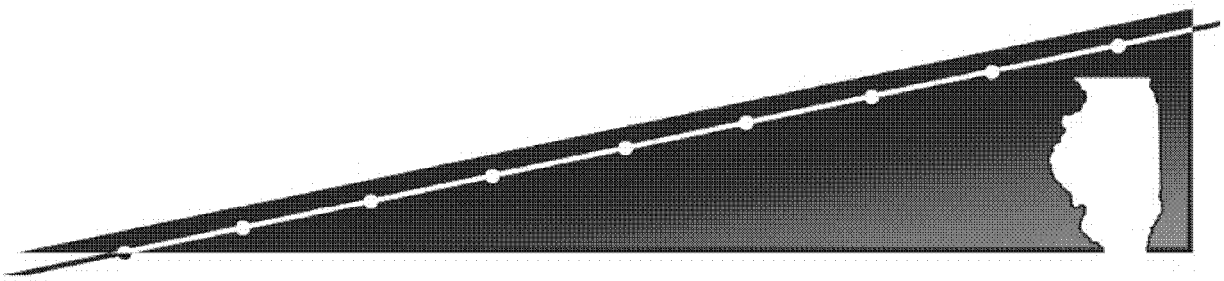
Illinois Historic Performance on Turnaround		
Schools and/or Districts Since SY2004-2005[10]	**Approach Used**	**Results and Lessons Learned**
	topics. -Implemented curriculum alignment process and exit outcome reporting strategies. Teachers are required to report on student performance at the end of each quarter and re-teach concepts not mastered by students in each quarter. -Used internal standardized testing programs to monitor student progress.	development has been mixed, with some, but not all, teachers beginning to incorporate new concepts into their daily activities. Changes to curriculum and exit outcome reporting strategies have been quite effective at the K-8 level, but not as effective at the high school level. Monitoring of progress on standardized tests and assessments is ongoing.
East St. Louis High School, District #189	Transformation Model: -Hired new principal, new administrative team, and Principal Coach. -Board members and teaching staff attended career academies; professional development survey and planned professional development in critical areas of concern. -Improved technological resources. -Increased emphasis for teachers on attendance, instruction, supervision, recordkeeping, schedule development, and student support. -Began monitoring teachers with regular observations.	Positive results have been observed in the school culture, attitude toward learning, and achievement of students in academic extracurriculars. The school has not yet made Adequate Yearly Progress, but there has been a significant increase in the number of students scoring over 18 on the ACT.
Country Club Hills School District 160	Transformation Model: -Implemented comprehensive school reform plan. -Secured School Improvement Grant.	During implementation of the Comprehensive School Reform plan, the school met Adequate Yearly Progress. Teacher and principal effectiveness has been observed as a critical element that directly impacts achievement levels.
Zion-Benton Township HSD 126	Transformation Method: -Aligned curriculum with Illinois Learning Standards and ACT College Readiness Standards. -Implemented comprehensive formative and summative assessments. -Improved use of data at institutional level. -Implemented intensive professional development for staff.	Last year, the schools experienced a 10.1% overall increase in reading proficiency and a 5.6% increase in math proficiency.
Champaign Unit 4	Transformation Model: -Implemented new teacher evaluation system with increased focus on student achievement, participation in activities related to student achievement, participation in campus programming,	New evaluation systems are being piloted in three schools this year. Restructuring efforts at a low-performing elementary school were successful. With that school being

Illinois Historic Performance on Turnaround		
Schools and/or Districts Since SY2004-2005[10]	**Approach Used**	**Results and Lessons Learned**
	and identifying needs of at-risk students. -Implemented principal evaluation system that is more directly linked to student achievement, including the school's test scores, graduation rates, enrollment in more rigorous courses, and attendance rates. -Restructured an elementary school that was on the State Academic Watch List and was chronically under-chosen by students and families.	named an Illinois Spotlight School for four consecutive years.
Hillcrest High School, Bremen District 228	Transformation Model: -Restructured students into small learning communities and cohorts. -Administered EXPLORE test to 8th grade students and used results to identify at-risk students. -Extended learning time in math and English. -Scheduled common teacher planning periods for discussion of student progress and best practices.	The school has observed improvement in math and reading remediation, helping keep at-risk students on track with their peers. The first cohort will take the PSEA this spring.
Proviso Township High School, District 209	Transformation Model: -Implemented reform model focused on curriculum, instruction, and assessment. -Implemented 9th grade academic initiative focused on accelerating students on the verge of meeting and exceeding state academic standards. -Administered new district-wide assessments for students in math and English, with incremental tests administered each quarter. -Developed an alternative program to support students in need of interventions in smaller groups. -Implemented a School Administrator Manager model to support principals in two high-priority schools.	The school has observed that a lack of consistent implementation and focus have been major barriers to progress in student achievement in the District. This problem is attributed to a combination of lack of leadership and capacity in the area of curriculum and instruction, lack of focus on student achievement in general, and financial constraints.
Carrollton CUSD 1	Transformation Model: -Provided comprehensive, continuous professional development. -Required schools to submit school improvement plans. -Implemented a standardized reading assessment program and audits of the math programs. -Aligned math curriculum to ILS and College Readiness standards. -Initiated centralized system to track student assessments, records, and demographics and make student data more accessible to parents. -Extended and improved summer school programs	A lack of financial resources and the school community's tendency to deny poor performance have contributed to a past pattern of decline. Recent grant funds have allowed this small, low-income, rural district to acquire some of the infrastructure necessary to implement changes. School improvement efforts have focused primarily on early grades and at-risk students. The high school has still failed to make Adequate Yearly Progress. This year, teachers were trained to

Illinois Historic Performance on Turnaround		
Schools and/or Districts Since SY2004-2005[10]	**Approach Used**	**Results and Lessons Learned**
	for at-risk students.	analyze, interpret, and apply student data. However, limited financial resources are a problem. For future success, the school will need a support system of mentors and consultants to establish a consistent and comprehensive message.
Rich Township High School, District 227	Transformation Model: -A plan for each of three campuses was submitted to the State in 2007.	In 2008, 2 of 3 campuses made safe harbor for all subgroups in reading and math. In 2009, 2 of 3 campuses made safe harbor for all subgroups in reading and math, and the 3rd campus made safe harbor for all subgroups in reading. Math scores continue to rise as a result of math intervention supports for students. Benchmark assessments in math and science have assisted with targeting skill areas in need of review. The extension of this system to all subject areas will likely increase student achievement. Also, teachers will require access to data and resources to target students for assistance.

9109957_v2

[1] Ready for the Next Challenge: Improving the Retention and Distribution of Excellent Teachers in Urban Schools. Teach Plus (Spring 2009), p. 3.



The State of Illinois
RACE TO THE TOP
APPLICATION FOR INITIAL FUNDING

APPENDICES

JANUARY 19, 2010

Volume II

APPENDIX VOLUME II

Appendix		Page #
A.	**State Success Factors**	
Appendix A2-8	Letters of Support	1
B.	**Standards and Assessments**	
Appendix B1-1	Common Core State Standards Initiative Consortium Participants	82
Appendix B1-2	Memorandum of Understanding	83
Appendix B1-3	Common Core Standards	86
Appendix B1-4	Outline of International Benchmarking of Common Core Standards	290
Appendix B2-1	Florida Consortium MOA	292
Appendix B2-2	Florida Consortium Participants	298
Appendix B2-3	MOSAIC MOU	299
Appendix B2-4	MOSAIC Consortium Participants	302
Appendix B2-5	Balanced Consortium MOU	303
Appendix B2-6	Balanced Consortium Participants	310
Appendix B2-7	SMARTER Consortium MOU	311
Appendix B2-8	SMARTER Consortium Participants	314
Appendix B2-9	Achieve Consortium Letter of Intent	315
Appendix B2-10	Achieve Consortium Participants	317

Appendix A2-8
Letters of Support

Teachers Unions

Organization	Overview of Organization	Actions of Support
Illinois Education Association (IEA)	IEA is an association of more than 133,000 Illinois elementary and secondary teachers, higher education faculty and staff, educational support professionals, retired educators, and college students preparing to become teachers. The IEA is committed to serving the interest of public education in Illinois and effecting excellence and equity in public education as an advocacy organization for all public education employees.	-Support the organization's local associations who have agreed to participate in Illinois' Race to the Top proposal. -Work collaboratively to develop and implement local education improvement plans.
Illinois Federation of Teachers	The Illinois Federation of Teachers represents 103,000 men and women who are teachers and paraprofessionals in school districts throughout Illinois, faculty and staff at Illinois' community colleges and universities, public employees under every statewide elected constitutional officer, and retirees.	-Participate in state-level work to implement Race to the Top activities in collaboration with ISBE and other education stakeholders. -Work with local unions to provide information and assistance on Race to the Top Initiatives at the district level.

Other Role-based Education Stakeholders

Organization	Overview of Organization	Actions of Support
Illinois Association of Regional Superintendents of Schools (IARSS)	IARSS is dedicated to supporting the role of regional superintendents, assistant superintendants, and offices of education in Illinois. IARSS supports the efforts of school administrators to promote quality education for the students and citizens of Illinois, to provide educational leadership, to impact public policy, and to deliver educational services effectively for the benefit of Illinois school districts, other educational entities, and educational system clients.	-Work as a Lead Partner or Supporting Partner in the Illinois Partnership Zone, assisting low-performing schools. -Partner with the Illinois State Board of Education (ISBE) on the development and implementation of the state's proposed reforms and programs.
Illinois Association of School Business Officials (Illinois ASBO)	Illinois ASBO is devoted to the school business management profession and strives to promote the standards of school business administration through benefits to members including: job placement assistance, student scholarships, publications, professional development, and legislative involvement.	-Collaborate with ISBE and other stakeholders and legislators to develop and communicate educational policies. -Work with ISBE and other committees and task forces such as the Education Stakeholders, Illinois Education Roundtable, P-20 Council, and Performance Evaluation Advisory Council in recommending educational legislation, regulations, procedures, and practices. -Work to maintain the focus of policymakers and legislators on the need for ongoing funding for education.

Organization	Overview of Organization	Actions of Support
Illinois Alliance of Administrators for Special Education (IAASE)	The IAASE is a non-profit corporation organized to promote quality education for all students and provide an organizational structure through which students with disabilities are represented at a local, state and national level.	-Provide effective support to teachers and principals. -Provide intensive educator support focused on students' critical transition points.
Illinois Association of School Administrators (IASA)	State-wide association representing school and district administrators.	-Work collectively and collaboratively with ISBE and all education stakeholders on behalf of Illinois school communities. -Continue to lead and participate in meetings, committees and task forces, such as the Education Stakeholders Meeting, IASA/ISBE Advisory Committee, P-20 Council and Performance Evaluation Advisory Council.
Illinois Association of School Business Officials (Illinois ASBO)	Illinois ASBO is devoted to the school business management profession and strives to promote the standards of school business administration through benefits to members including: job placement assistance, student scholarships, publications, professional development, and legislative involvement.	-Collaborate with ISBE and other stakeholders and legislators to develop and communicate educational policies. -Work with ISBE and other committees and task forces such as the Education Stakeholders, Illinois Education Roundtable, P-20 Council, and Performance Evaluation Advisory Council in recommending educational legislation, regulations, procedures, and practices. -Work to maintain the focus of policymakers and legislators on the need for ongoing funding for education.

Funders

Organization	Overview of Organization	Actions of Support
The Chicago Community Trust—Race to the Top Collaborative Fund	The Chicago Community Trust is a community foundation, built by generations of Chicagoans to support a safe, health, and productive future for every resident. In 2008, the Trust and its donors granted more than $100 million to sustain effective, innovative programs throughout metropolitan Chicago. The fund is directed at supporting education, as well as arts and culture, basic human needs, community development, and health.	-The 18 foundation members of The Race to the Top Initiative—a short-term collaborative fund of the Chicago Community Foundation—are providing a grant to develop Illinois' Race to the Top application and are committed to continued collaboration with the state for the long-term improvement of education in Illinois.

Advocacy and Education Partner Organizations

Organization	Overview of Organization	Actions of Support
Advance Illinois	Advance Illinois is an advocacy group with bipartisan political leadership and a board of business and community leaders, policy experts, and educators. The group seeks to act as an objective voice to promote a public education system in Illinois that prepares all students for college, work, and democratic citizenship.	-Play a continuing role in the state's plan to overhaul the teacher evaluation system. -Continue supporting the state's efforts to use data to inform instruction and school improvement and play a central role in developing the Learning and Performance Management System for data management. -Work to develop the Kindergarten Readiness standard in partnership with leaders such as An Ounce of Prevention and the Erikson Institute.
Board of Education of the City of Chicago	The Chicago Board of Education is responsible for the governance, organizational and financial oversight of Chicago Public Schools (CPS), the third largest school district in the United States of America. It establishes policies, standards, goals and initiatives to ensure accountability and provide a high quality, world-class education for the 21st century that prepares students for success in college, work and life.	-Continue to partner with the State to pursue reform initiatives in CPS, including closing or turning around underperforming schools. -Work with CPS teachers and administrators and private sector partners to open new schools, create more choice for families in historically underserved neighborhoods, and use student growth data to measure teacher and principal performance.
ED-RED	ED-RED is an advocacy organization committed to service as "the voice of suburban schools" in Illinois. ED-RED monitors and actively influences education policy at the state level, with a focus on issues that affect its member school districts.	-Support the development of a statewide longitudinal data system. -Support and pursue the Common Core standards.
Illinois Leadership Council for Agricultural Education (ILCAE)	ILCAE is a state-wide organization of individuals representing all segments of the agricultural industry to provide statewide leadership to improve education in and about agriculture. The council serves as an advocate for agricultural educators at the local and state levels and seeks to involve the agricultural industry in the assessment of agricultural education and in developing quality instructional programs and processes to meet current and future needs.	-Continue to work with the State in supporting STEM-related Programs of Study in agriculture and natural resources. -Work cooperatively with other STEM Learning Exchanges in supporting the growth of STEM-related Programs of Study throughout Illinois.
Illinois Science and Technology Coalition (ISTC)	ISTC cultivates economic development in Illinois by increasing resources for research and development (R&D) initiatives at Illinois-based institutions and businesses. ISTC is active in the industries of advanced manufacturing, agriculture, energy, information technology, life sciences, and	-Serve as a partner in implementing the National Career Readiness Certificate (NCRC) program and STEM-related Programs of Study throughout Illinois.

Organization	Overview of Organization	Actions of Support
	supercomputing.	
Illinois Transportation, Distribution, and Logistics (TDL) Task Force	The Illinois TDL Task Force is devoted to developing recommendations for addressing the causes of worker shortages in transportation and logistics. The task force focuses on the workforce challenges that threaten Illinois' transportation and logistics industry and require state level action.	-Serve as a partner in planning and implementation of the NCRC and STEM-related programs of study throughout the state. -Serve as a partner in planning and implementation of STEM Learning Exchanges for transportation, distribution, and logistics. -Support the development of STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and internship and career development opportunities for students.
Interactive Illinois Report Card	Interactive Illinois Report Card is a program of Northern Illinois University that publishes test results and other school improvement information for Illinois schools online, so that the information is available and accessible to the public.	-Assist with developing and hosting the array of improved school performance benchmarks, assessments, and performance measures on the organization's existing user-friendly website. -Provide necessary technical assistance in the implementation of the student data system with classroom applications for teachers and administrators. -Assist in developing workshops, professional development programs, and on-line resources to support Race to the Top initiatives.
Large Urban District Association (LUDA)	Represents the interests of the 55 largest districts in the state; 44 are participating LEAs for the RTTT proposal.	-Coordinate RTTT participation of member districts -Communicate about RTTT with member districts
Ounce of Prevention Fund	The Ounce of Prevention Fund strives to give children who were born into poverty a chance for success in school and in life by investing in children in the earliest weeks, months, and years of their lives. The Ounce is committed to four key goals: providing direct services to at-risk children and their families from birth to age 5, training early childhood professionals across the state, conducting research and incorporating it into programs, and advocating for sound public policies and sustained funding streams.	-Support the development and implementation of the Kindergarten Readiness Measure to promote instructional alignment from Pre-K through third grade. -Actively participate as a partner in planning Kindergarten Readiness Assessments. -Serve as an active resource for professional training and development and an ex-officio member of the P-20 Council.

Organization	Overview of Organization	Actions of Support
Parents & Residents Invested in School and Education Reform Coalition (PRISE)	PRISE is a community-based organization of parents and residents invested in promoting education reforms in low-performing Illinois schools and increasing family and community involvement in local school systems.	-Support programs to increase parent and community engagement and social support for the most challenged low-performing schools.
The Alternative Schools Network of Chicago (ASN)	ASN is an association of 52 community-based education agencies in Chicago. Since 1973, ASN has been an advocate for community-based services with an emphasis on involving community members as active participants in developing and running programs. ASN is committed to working to promote quality education, with a specific emphasis on inner-city children, youth, and adults.	-Support the Dropout-Prevention and Re-Enrollment Support components of the State's proposal, with a focus on increasing graduation rates and helping youth who are now on the streets return to school.
Voices for Illinois Children	Voices for Illinois Children champions the full development of every child in Illinois to assure the future well-being of everyone in the state. The organization works with families, communities, and policymakers to help children grow up healthy, happy, safe, loved, and well-educated.	-Serve on Illinois' P-20 Council. -Advocate for the full development, best use, and proper monitoring of Kindergarten-readiness measures and longitudinal, data-sharing processes. -Advocate for additional local, state, and federal funding to support educational priorities. -Build public awareness of and support for the State's Race to the Top initiatives and goals.

Higher Education Institutions

Organization	Overview of Organization	Actions of Support
Associated Colleges of Illinois (ACI)	ACI is a group of 23 private colleges and universities, rooted in the liberal arts tradition, that leverages the expertise of a statewide network to provide underserved students with new educational opportunities. ACI is committed to engaging college, business, and community leaders to address three key areas: enhancing teaching and learning in K-12 schools serving at-risk children, raising graduation and college entrance rates among at-risk students, and improving the chances of college success for first-generation, low-income, and minority students.	-Host LEAs to operate six-week High-Need Schools Internships—intensive summer experiences that prepare and position pre-service teachers to maintain ongoing relationships with host LEAs. Internship participants will also be encouraged to complete student teaching and assume permanent teaching positions in the LEAs in which they serve as interns.
Consortium on Chicago School Research (CCSR) at the University of Chicago, Urban	The CCSR at the University of Chicago conducts research of high technical quality that can inform and assess policy and practice in the Chicago Public Schools. CCSR seeks to expand	-Work as an active partner on the proposed Illinois Collaborative for Education Policy Research (ICEPR), an innovative state research and development partnership modeled directly after CCSR's work and

Organization	Overview of Organization	Actions of Support
Education Institute	communication among researchers, policy makers, and practitioners, and to support the search for solutions to the problems of school reform.	experience in Chicago.
Erikson Institute	The Erikson Institute is a premier graduate school in child development. It also focuses on applied research, providing clinical services to families, participating in a wide range of community engagement initiatives, and collaborating to improve and expand services from school districts and public agencies.	-Support the implementation of the Kindergarten Readiness Assessment. -Support the implementation of the K – Grade 3 professional development program.
Forum on the Future of Public Education and **The College of Education at the University of Illinois Urbana-Champaign**	The University of Illinois at Urbana-Champaign is a premier public university in Illinois, and its College of Education is a hub of educational research, scholarship, and training. The Forum on the Future of Public Education draws on a network of scholars at the University of Illinois and beyond to create, interpret, and disseminate credible information on key questions in educational policy.	-Assist in establishing and participate as a partner in the ICEPR. -Combine ICEPR with Illinois' integrated data management system to identify leaks in educational pipelines and determine the most effective interventions. -Assist in developing an aggressive agenda, including drafting a state educational research agenda and assessing the data analysis capacity of Illinois school districts.
Illinois Education Research Council (IERC) at Southern Illinois University	IERC was established at Southern Illinois University to provide Illinois with educational research and support education policy-making and program development. The IERC conducts independent research and policy analysis and brings objective and reliable evidence to the work of state policymakers and practitioners.	-Update and refine the IERC Index of Teacher Academic Capital to analyze the equitable distribution of highly effective teachers and principals throughout the state. -Participate in the Educational Research Collaborative Steering Committee and Board. -Continue to serve on the Technical Advisory Group for the Illinois Longitudinal Data System.
National Center for Supercomputing Applications (NCSA) at the University of Illinois Urbana-Champaign	The NCSA provides powerful computers and expert support to help thousands of scientists across the country conduct research and gather and process data. For more than 20 years, NCSA has been a leader in deploying robust high-performance computing resources and in working with research and education communities to develop new computing and software technologies. The NCSA considers education to be a top priority and is committed to bringing computing and computation in the classroom to help students understand scientific concepts and bridge the gap between research and education.	-Acquire, deploy, and operate an internet-based ("cloud computing") system for the Learning and Performance Management System (LPMS), and develop and re-tool existing software applications needed to analyze educational data. -Contribute to the design of the LPMS. -Partner with Illinois high schools to create the "Blue Wave in Science Education in Illinois" teaching program, modeled after a previous concept used in teaching chemistry and extended to all areas of science. The model will be implemented as part of the STEM Learning Exchange and includes a robust professional development component for teachers.

Organization	Overview of Organization	Actions of Support
		-Develop a platform for a competition where students of all achievement levels compete and collaborate virtually on computational projects across STEM disciplines in partnership with researchers and industry.
School of Education, Loyola University Chicago	Loyola University Chicago is the nation's largest Jesuit, Catholic university. The School of Education is dedicated to continuing the Jesuit tradition of uplifting people through education, regardless of race or religion. Loyola's community of educators is committed to serving as role models of scholarship and promoting social justice in education.	-Support the implementation of the Improving Effectiveness of Teacher and Principal Preparation program. -Support the implementation of the statewide Longitudinal Data System. -Support the implementation of enhanced standards and high quality assessments of teachers and administrators.
School of Education, Southern Illinois University Edwardsville (SIUE)	The School of Education at SIUE is committed to pursing key goals including offering high quality programs for its students, exceptional service to the community, and cutting-edge research that informs policy and practice. The School is also committed to forming partnerships with a variety of educational, service, and business entities in order to advance research and innovative practices across a broad spectrum of professions and community organizations.	-Reform and redesign administrator preparation. -Develop successful pathways for teacher certification to non-traditional students in critical needs areas such as early childhood education and secondary education. -Collect and disseminate data related to graduate satisfaction and success in the classroom. -Support the revision of Illinois teaching standards. -Serve on the State's Leadership to Integrate the Learning Continuum Advisory Committee, Illinois New Teacher Collaborative Partnership Board, Associate of Arts in Teaching Steering Committee, and Charter School Authorizer Task Force. -Operate a STEM Center on campus and participate in STEM Learning Exchanges.

State Agencies

Organization	Overview of Organization	Actions of Support
Illinois Board of Higher Education	Plans and coordinates Illinois' system of colleges and universities.	- Pledge to continue developing with you and the education community the culture of evidence that is required to measure progress toward the goals of RTTT.
Illinois Community College Board	The Illinois Community College Board is the state coordinating board for community colleges. The Board works with all groups within the community college system to establish policies necessary to implement state statutes.	-Support the implementation of college and career-ready standards, high quality evaluation and assessment of teachers and administrators, and college and career data systems.
Illinois Department of Commerce and	DCEO administers a wide array of programs and services for Illinois	-Serve as a partner in the planning and implementation of STEM Learning

Organization	Overview of Organization	Actions of Support
Economic Opportunity (DCEO)	businesses including services in business development, community development, energy and recycling, technology, tourism, trade, workforce development, and entrepreneurship.	Exchanges for all STEM areas. -Work with public and private partners to plan and implement the Energy Learning Exchange.

Business/Civic Organizations

Organization	Overview of Organization	Actions of Support
Chicagoland Chamber of Commerce	The Chicagoland Chamber of Commerce is a private, non-profit business assistance and economic development organization dedicated to enhancing its members' success through aggressive programs in advocacy, member benefits, services, and information. The Chicagoland Chamber if Commerce has operated educational programs such as Future Founders, College Access Network, and School-to-Work.	-Engage industry sector committees in STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanded internship and career development opportunities for students. -Host an employer discussion of the NCRC. -Help establish a statewide program for students to obtain the NCRC to increase numbers of job-ready students and make NCRC an important credential for a wide range of careers.
Illinois Biotechnology Industry Organization (iBio)	iBio is a life sciences industry association composed of a wide range of companies and business leaders. iBIO's mission is to make Illinois and the surrounding Midwest one of the world's top life sciences centers. iBIO advocates for sound public policy, delivers education and training programs, and improves Illinois' ability to create, attract, and retain businesses.	-Partner with the State on the Illinois Innovation Talent program, a STEM-focused, industry-led pilot program. -Serve as a partner in planning and implementation of STEM Learning Exchanges for health sciences and agriculture and natural resources. -Grow and leverage existing programs such as SCI: Science Career Investigation and TalentSparks! teacher professional development in biotechnology. -Support the development of STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and internship and career development opportunities for students.
Metropolitan Chicago Healthcare Council (MCHC)	MCHC is a membership and service association comprising more than 140 hospitals and health care organizations working together to improve the delivery of health care services in the Chicago area. The Council's membership consists of hospitals, physician groups, nursing homes, outpatient treatment centers, insurers, medical schools, and other health care organizations.	-Assist in implementation of the NCRC program and STEM-related Programs of Study throughout Illinois. -Partner with the State in implementation of the STEM Learning Exchanges in health sciences. -Support the development of STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development

Organization	Overview of Organization	Actions of Support
		programs for teachers, and internship and career development opportunities for students.
The Illinois Business Roundtable	Illinois Business Roundtable is a voluntary association of 63 chief executive officers of Illinois' leading businesses, formed to make recommendations and take action on critical public policy issues facing Illinois.	-Partner with the State to implement the NCRC program. -Participate in NCRC-related career development for students. -Work to promote NCRC as a tool for verification of workplace skills. -Support STEM Learning Exchange activities by contributing to professional development programs and developing opportunities for students to transmit job applications and receive information through STEM Learning Exchanges. -Provide staff for statewide implementation and support of STEM Learning Exchanges.

Business and Industry Leaders

Organization	Overview of Organization	Actions of Support
Astellas Pharma US, Inc.	Astellas Pharma US, Inc., is the U.S. affiliate of Japan's second-largest pharmaceutical company. The company's North American headquarters is located in Deerfield, Illinois. In the U.S., Astellas is intensely focused on cardiology, dermatology, immunology, infectious disease, and urology. Astellas is also committed to advancements within the field of oncology and other emerging therapeutic areas.	-Serve as a partner to implement the NCRC Program and STEM-related Programs of Study. -Serve as a partner in the planning and implementation of STEM Learning Exchanges for health sciences.
AT&T	AT&T is one of the world's leading producers of entertainment and communications products and services. The company's mission is to connect people and businesses to their world, everywhere they live and work.	-Work with the State and other stakeholders to implement Race to the Top initiatives, particularly STEM-related programs and the NCRC program.
Baxter International, Inc.	Baxter is a global healthcare company that assists healthcare professionals and their patients with treatment of complex medical conditions including hemophilia, immune disorders, kidney disease, trauma and other conditions. Baxter applies its expertise in medical devices, pharmaceuticals and biotechnology to make a meaningful difference in patients' lives	-Continue the *Science @ Work: Expanding Minds with Real-World Science* program launched in 2008 in partnership with Chicago Public Schools (CPS), Renaissance Schools Fund, and the Illinois Institute of Technology. The program aims at providing enhanced biotechnology science education opportunities to CPS students and teachers. -Assist in implementation of the NCRC and STEM-related Programs of Study. -Help plan and implement STEM Learning Exchanges for Health Science.

Organization	Overview of Organization	Actions of Support
		-Support the development of STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and internship and career development opportunities for students.
BNSF Railway	BNSF Railway ships coal, agricultural products, consumer goods, and industrial products. BNSF Railway focuses on using speed, agility, and resourcefulness to help expand the global marketplace for goods and services.	-Serve as a partner in planning and implementing STEM Learning Exchanges in transportation, distribution, and logistics.
IBM	IBM is a global leader in the information technology industry. IBM's corporate citizenship activities focus on developing initiatives to address specific societal issues, such as the environment, community economic development, education, health, literacy, language, and culture. IBM is committed to creating innovative programs in these areas to assist communities around the world.	-Collaborate to foster STEM-related Programs of Study throughout the State.
Microsoft Corporation	Microsoft is a global leader in the information technology industry. The corporation is dedicated to using technology to effect societal change, including improving education, particularly in math and science. Microsoft works with partners around the world to invest in education IT infrastructure and personalized learning experiences for students.	-Serve as a partner to implement the NCRC Program and STEM-related Programs of Study. -Serve as a partner in the planning and implementation of STEM Learning Exchanges for information technology. -Support the development of STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and internship and career development opportunities for students.
Northrop Grumman	Northrop Grumman Corporation is a leading global security company whose 120,000 employees provide innovative systems, products, and solutions in aerospace, electronics, information systems, shipbuilding, and technical services to government and commercial customers worldwide.	-Contribute to professional development programs. -Collaborate to develop real-world interdisciplinary problems for students. -Develop opportunities for students to transmit job applications and receive information about career opportunities through STEM Learning Exchanges.
Rico Enterprises, Inc.	Rico Enterprises provides technology solutions for government, businesses, educational institutions, and community organizations. The company's core services are technology sales, service, and	-Continue to serve on the Illinois P-20 Council and Illinois Workforce Investment Board's IT Workforce Task Force. Work to guide state efforts to build an education and workforce development system and

Organization	Overview of Organization	Actions of Support
	consulting.	longitudinal data system. -Support the development of STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and internship and career development opportunities for students.
Takeda Pharmaceuticals	Takeda is a research-based global pharmaceutical company. Takeda is committed to striving toward better health for individuals and progress in medicine by developing superior pharmaceutical products.	-Support the NCRC and STEM-related Programs of Study.

Professional and Trade Associations and Other Unions

Organization	Overview of Organization	Actions of Support
Council of Supply Chain Management Professionals (CSCMP)	CSCMP is a worldwide professional organization of supply chain management professionals. CSCMP provides leadership, education, networking, research, communication, and other services to enhance the supply chain management profession.	-Support implementation of the NCRC Program. -Assist efforts to plan and implement STEM Learning Exchanges for transportation, distribution, and logistics. -Support STEM Learning Exchange activities including development of e-learning curriculum resources, professional development programs for teachers, and internship and career development opportunities for students.
Illinois AFL-CIO	The Illinois AFL-CIO represents one million union members, including three teachers' unions and a school administrator's union. The Illinois AFL-CIO helps improve the lives of working men and women by promoting the rights of workers to join a union and making sure their voices are heard at the state capitol. In addition to a full-time presence in Springfield fighting for strong labor laws, the Illinois AFL-CIO also helps shape political dialog around issues that affect workers.	-Serve as a partner with the State in the planning and implementation of the STEM Learning Exchange for Architecture and Construction. -Support the development of STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and internship and career development opportunities for students.
Illinois Trucking Association (ITA)	ITA is a trade organization dedicated to enhancing the effectiveness of its member companies by advocating sound public policies, and providing excellence in education, training and information while promoting a safe, dependable and cost effective transportation system. ITA is committed to articulating the concerns of the trucking industry to	-Serve as a partner to implement STEM Learning Exchanges for transportation, distribution, and logistics. -Support STEM Learning Exchange activities including development of e-learning curriculum resources, professional development programs for teachers, and internship and career development

Organization	Overview of Organization	Actions of Support
	government, regulatory bodies and the general public.	opportunities for students.
TechAmerica	TechAmerica is an advocacy organization for the U.S. technology industry. Representing approximately 1,500 member companies of all sizes from the public and commercial sectors of the economy, it is the industry's largest advocacy organization and is dedicated to helping members' top and bottom lines.	-Serve as a partner to implement STEM-related Programs of Study throughout the state. -Serve as a partner in planning and implementation of STEM Learning Exchanges in research & development and information technology. -Support STEM Learning Exchange activities including development of e-learning curriculum resources, professional development programs for teachers, and internship and career development opportunities for students.
Tooling & Manufacturing Association (TMA)	TMA supports industry by providing educational opportunities, industry representation, and services to foster member company global competitiveness. TMA helps member companies train and educate personnel, provides information and assistance, pools the purchasing power of member companies, represents and promotes the interests of member companies, serves as a forum for the exchange of ideas and information, and fosters a sense of mutual support and unity among the members.	-Serve as a partner to implement the NCRC and STEM-related Programs of Study throughout the state. -Serve as a partner to planning and implementation of STEM Learning Exchanges in manufacturing and transportation, distribution, and logistics. -Support STEM Learning Exchange activities including development of e-learning curriculum resources, professional development programs for teachers, and internship and career development opportunities for students.

ACT

FIFTY YEARS 1959|2009

Jon L. Erickson
Senior Vice President
Educational Services

January 15, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. I, on behalf of ACT, am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms. The available funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools.

ACT's research agenda over the last decade has been focused on the issues of college and career readiness and success. Our findings reinforce the need to raise expectations and achievement for all students. Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world.

In particular, ACT intends to support the implementation of the following components of the State's RTTT plan:

- Developing and Adopting Common Standards
- Establishing new capacities to assist LEAs with the adoption an implementation of Assessments for Learning
- Building off the strengths of the current State high school assessment to promote alignment of middle and high school instruction with college- and work-ready expectation
- Establishing a Statewide career readiness certificate program validating student readiness for the workplace
- Implementing a statewide longitudinal data system
- Supporting research initiatives such as the Index of Teacher Academic Capital
- Conducting workshops and providing resources to support professional development initiatives for teachers and principals
- Implementing the Illinois Partnership Zone initiative, one of the four proposed school intervention models

We look forward to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

(b)(6)

Jon L. Erickson
Senior Vice President
Educational Services
ACT, Inc.

500 ACT Drive P.O. Box 168 Iowa City, Iowa 52243-0168 319/337-1055
jon.erickson@act.org www.act.org

January 13, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

Advance Illinois would like to express strong support for the comprehensive education reforms outlined in the State of Illinois' Race to the Top ("RTTT") application.

As you know, our advocacy group represents a broad range of Illinoisans, with bipartisan political leadership (co-chaired by former Gov. Jim Edgar and former Secretary of Commerce Bill Daley) and a board of business leaders, community leaders, policy experts and educators. We have recommended Illinois enact many of the reforms called for in RTTT and endorse the state's efforts wholeheartedly.

These reforms will transform the state's schools, replacing an input-driven, compliance-focused system that is failing with an outcome-based, results-oriented system that helps prepare every child in the state to be world-ready.

We offer our continued support in many of the areas of the application. In particular, we offer to continue playing a role in your plan to overhaul the teacher evaluation system in the state. Your plan, as embodied in Senate Bill 315 passed in January, sets Illinois on a path to where teachers are no longer treated like widgets, but given the kind of professional feedback and development they deserve. And, by linking student achievement data to their teachers, we can make the best decisions about instruction and staffing. The State Board's work to redesign principal evaluation is also well-judged, as strong leadership is at the heart of every great school.
Advance Illinois has commissioned a study by the National Council on Teacher Quality to assess the caliber of our teacher evaluation programs. This process has been in collaboration with the State Board.

We hope to continue supporting the state's efforts to use data to inform instruction and school improvement. In particular, we hope to keep playing a central role on the working group that is developing the Learning and Performance Management System, founded on a cutting-edge, user-friendly data system to drive instruction across the state. If RTTT reforms are enacted and successful, our educators will not only have the data they've been craving on their student's

achievement, but the support, from quality instructional tools and connections to their colleagues facing the same challenges, to use the data. In addition, improved data quality through-out the state will enable us to track progress and indicators to ensure the state is on track to achieve its education goals from Birth through Career.

Indeed, it's important that the state focus on developing standards for kindergarten readiness and college readiness. Advance Illinois is proud to work together on the team developing the kindergarten readiness standard, along with Illinois-based industry leaders such as Ounce of Prevention and the Erikson Institute. Also, we've called for formative assessments to improve instruction and are heartened to see that captured in the Assessments for Learning section of your RTTT application. In addition, a smart, rigorous model for growth is at the heart of a sound accountability system, allowing us to answer the fundamental question of whether our students are improving over the course of a school year, and from year to year.

We are eager to help you and the State Board with the challenging work of turning around our lowest-achieving schools. As the state's strategic partner in the MassInsight pilot project for turnaround schools, we are hopeful that Illinois will be awarded the chance to focus much-needed outside expertise and resources on this issue.

Finally, we congratulate you on the process of the application. By embracing the challenge from the U.S. Department of Education to fully engage our state stakeholders, you have built a robust plan that will endure changes in leadership, be they at the state, district or school level. This process has brought together all of us who have been working so long to rebuild our state's education system. By working as a team, we believe a new day has dawned, and that Illinois can fulfill its promise to educate all of its children, and prepare them well for the challenges they'll face as adults.

We stand ready to continue working with your office and your strong, progressive team at the State Board. We are eager to keep up the constructive dialogue that has driven this process from the start, and to assist in the implementation of a plan that promises to bring so much good to the citizens of our great state.

Sincerely,

(b)(6)

Robin Steans
Executive Director
Advance Illinois

Alternative Schools Network
1807 W. Sunnyside Suite 1D
Chicago, IL 60640

Phone: 773-728-4030
Fax : 773-728-3335

Creating Futures Every Day

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Thursday, January 14, 2010

Dear Dr. Koch:

The Alternative Schools Network of Chicago (an association of 52 community based education agencies in Chicago) and I, as its representative, are very excited about the Illinois Race to the Top Application for Initial Funding ("RTTT").

We strongly support the Illinois Application and are excited about the opportunity that federal RTTT grant funds will provide to move Illinois forward on very substantive and significant education reforms.

This application will allow Illinois to continue to develop and accelerate its education system to prepare every child in Illinois to enter post-secondary education and eventually the workplace. Particularly, the Illinois RTTT application will help Illinois to address the problems that continue to challenge school districts and schools that are low achieving.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world.

In particular, the Alternative Schools Network intends to support the implementation of the Dropout-Prevention and Re-Enrollment Support component of the Illinois RTTT proposal. With the passage of the Illinois Hope and Opportunities Pathways through Education (IHOPE) and five multi-site high school charters for dropouts in Chicago, Illinois is a strong leader in the country to address the growing crisis of youth who leave school before they earn a high school diploma. The commitment of the Illinois RTTT proposal to allocate $25 million to this component will significantly help thousands of youth who are now on our streets with no hope to return to school and earn a diploma. Also, this will help the graduation rate in the state and many school districts across the state.

For many youth, returning to school is not just an economic necessity, it has also become a matter of life and death in terms of their needing to leave the streets and find refuge from the violence in their neighborhoods. The Illinois RTTT proposal's commitment to IHOPE is a significant commitment to making a real bridge for thousands of young people to reach a healthy and prosperous adulthood.

Alternative Schools Network
1807 W. Sunnyside Suite 1D
Chicago, IL 60640

Phone: 773-728-4030
Fax : 773-728-3335

I have known President Barack Obama since 1986 when we worked together on developing truancy and dropout re-enrollment programs in Chicago. He and Secretary of Education Arne Duncan have a deep commitment to developing and reaching youth who are out of school that came from their working with youth on the streets of Chicago.

We look forward to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

Jack Wuest
Executive Director
Alternative Schools Network

The Associated
Colleges of Illinois
Established 1952

27 North Wacker Drive
Suite 521
Chicago, Illinois 60606

www.acifund.org

January 14, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

The Associated Colleges of Illinois (ACI) supports the Illinois State Board of Education's goal of turning around low-performing schools through its Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. On behalf of The Associated Colleges of Illinois, I am excited about the opportunity to address a key Human Capital Strategy: reform district recruitment and hiring policies to support the work of the Illinois State Board of Education by providing participating school districts (LEAs) with a *High-Need Schools Internship* (HNSI) program that develops a pool of highly qualified teachers prepared specifically for those districts.

Immediate benefits to the participating LEA districts include: reducing recruitment costs, relieving teacher shortages, and shrinking attrition rates (and costs) arising from engaging teachers who may not be well prepared or well suited to low performing schools. In addition, *HNSI* advances transformation of teaching to a clinical practice profession, which can result in long-term benefits in the form of a more qualified teacher corps for under performing schools.

ACI will accomplish these goal by partnering its member colleges and universities (IHEs) with host LEAs to operate six-week *High-Need Schools Internships* (HNSIs) -- intensive summer experiences that prepare and position preservice teachers to maintain ongoing relationships with host LEAs, and to complete student teaching and assume teaching positions in the LEAs in which they have served as interns. Designed to advance teaching as a professional practice profession, these internships will 1) actualize the characteristics of clinical practice in the context of Carnegie Corporation's *Teachers for a New Era* (TNE) model for a clinical practice profession (Hinds, 2002); 2) conform to Charlotte Danielson's Framework for Teaching (Danielson, 2007); and 3) combine instruction that addresses in content, pedagogy, and socioeconomic and social-emotional factors with hands-on teaching experience -- to build a new pipeline of preservice teachers prepared both for the challenges of teaching in low performing schools, *and* for the specific cultural, socioeconomic, and intellectual challenges posed by the partner LEAs.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turn around our most challenged schools.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world.

ACI member colleges and universities are committed to the *High-Need Schools Internship* strategy. In addition to the six IHEs with established *HNSI*s, many others are literally clamoring for funding to help launch new *HNSI* sites. The institutional commitment of ACI IHEs to *HNSI* represents a significant resource in support of the program.

(b)(6)

Executive Director

January 14, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

On behalf of Astellas I am writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. At Astellas science is not only the foundation of our business, it's our passion. We are committed to playing an active role in science education and strongly believe that by doing so we can help drive medical innovation in the future. Through RTTT, Illinois can dramatically improve student performance in science, technology, engineering, and mathematics (STEM) disciplines and prepare them to tackle the challenges of the 21st century.

Our commitment to the Illinois RTTT application expands upon our long standing commitment to foster science educators' needs and help improve science education within Chicago and the surrounding communities. Astellas strongly supports an emphasis on high school reform and the focus on improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy.

We believe the State has identified important and effective high school reform initiatives in its RTTT application including establishing a statewide program for the National Career Readiness Certificate, developing and scaling STEM-related Programs of Study, and building STEM Learning Exchanges. STEM Learning Exchanges, in particular, are important to the success of

Astellas Pharma US, Inc.
Three Parkway North, Deerfield, IL 60015-2537

students because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

We are committed to partnering with the State to implement the NCRC program and STEM-related Programs of Study throughout the state. Astellas is also willing to serve as a partner with the State in the planning and implementation of STEM Learning Exchanges for health sciences.

We understand that the future of scientific innovation lies in our children and that a child's interest in science is sparked in the classroom. We look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application.

Sincerely,

(b)(6)

Seigo Kashii
President and CEO
Astellas Pharma US, Inc.

at&t

Paul V. La Schiazza
President
AT&T Illinois

225 West Randolph
Floor 27 B
Chicago, IL 60606

T: 312.727.2621
F: 312.558.1210
pl2576@att.com

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. I believe that RTTT presents an unparalleled opportunity to position Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

I support the strong emphasis on high school reform and the focus on improving transitions into both college and careers which will ensure the development of a well-educated workforce ready for a modern global economy. I believe the State has identified important and effective high school reform initiatives in its RTTT application, including: establishing clear college-ready expectations with standardized placement scores, establishing a statewide program for the National Career Readiness Certificate (NCRC), increasing student preparation and rigor in math, and developing and scaling STEM-related Programs of Study.

The NCRC will be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

I look forward to working with the State of Illinois and other stakeholders to help implement the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,

Paul La Schiazza

Paul La Schiazza
President – AT&T Illinois

Cc: Eileen Mitchell

USA Proud Sponsor of the U.S. Olympic Team

Baxter

Norbert Riedel
Corporate Vice President / Chief Scientific Officer

January 15, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. We believe that RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

As a global corporation that manufactures and markets products that save and sustain lives, Baxter International is committed to helping students become inspired and excited by science. We believe students deserve every opportunity to experience science first hand. And, in connection with talented Baxter professionals, we hope to enable them to advance medicine, technology and engineering for generations to come.

To that end, in 2008 Baxter launched *Science @ Work: Expanding Minds with Real-World Science* in partnership with Chicago Public Schools (CPS), Renaissance Schools Fund (RSF) and Illinois Institute of Technology, as a five year, three-part program aimed at providing enhanced biotechnology science education opportunities for CPS students and teachers. In its first year, the program has reached hundreds of teachers and thousands of students with biotechnology curricula.

We support the strong emphasis on high school reform and the focus on improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy. We believe the State has identified important and effective high school reform initiatives in its RTTT application including establishing a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

The NCRC will be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

Baxter Healthcare Corporation
One Baxter Parkway / Deerfield, Illinois 60015
T 847 948 2000

Norbert Riedel
Corporate Vice President / Chief Scientific Officer

Through existing partnerships Baxter has with the iBIO Institute, we are committed helping implement the NCRC program and STEM-related Programs of Study.

We are also willing to help plan and implement STEM Learning Exchanges for Health Sciences where applicable. We are committed to supporting STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers. In our first year working with CPS, we have provided biotechnology education support to more than 24,000 Chicago Public School students and 352 teachers in 109 schools. We look forward to furthering involvement in science education initiatives where Baxter's support can play a role in developing young minds.

We have seen the critical role our corporation plays in furthering educational opportunities, and we look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

S(b)(6)

Norbert G. Riedel, Ph.D.
Corporate Vice President
Chief Scientific Officer

Cc: David Miller, iBIO Institute
Valery Gallagher, Baxter Government Affairs and Public Policy

NGR:er

cc: R. Parkinson
D. Scharf

Baxter Healthcare Corporation
One Baxter Parkway / Deerfield, Illinois 60015
T 847 948 2000

Paul E. Nowicki
Assistant Vice President
Government & Public Policy

BNSF Railway Company
547 West Jackson Blvd., Ste. 1509
Chicago, IL 60661-5717
tel 312-850-5678
fax 312-850-5677
email paul.nowicki@bnsf.com

January 11, 2010

Hon. Pat Quinn
Governor
State of Illinois
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Dear Governor Quinn,

I am writing to express the strong support of BNSF Railway for the reforms outlined in the State of Illinois' Race to the Top (RTTT) application. RTTT appears to be an outstanding opportunity for Illinois to improve student performance, especially in science, technology, engineering, and mathematics (STEM).

BNSF especially supports high school reform and improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy. The State has clearly identified crucial high school reform initiatives in its RTTT application, including establishing a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

The NCRC will be an important career readiness credential, helpful to people seeking careers and to employers. The STEM-related programs of study offer promising approaches for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

BNSF is willing to serve as a partner with the State in the planning and implementing STEM Learning Exchanges in the transportation, distribution and logistics area.

I look forward to working with the State to implement RTTT. Please keep me informed of progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,

Paul Nowicki

Paul E. Nowicki

Board of Education

CITY OF CHICAGO

125 SOUTH CLARK STREET • 6TH FLOOR
CHICAGO, ILLINOIS 60603

TELEPHONE (773) 553-1600
FAX (773) 553-1601

OFFICE OF THE BOARD

MICHAEL W. SCOTT
PRESIDENT

CLARE M. MUÑANA
VICE PRESIDENT

MEMBERS
NORMAN R. BOBINS
DR. TARIQ BUTT
ALBERTO A. CARRERO, JR.
PEGGY A. DAVIS
ROXANNE WARD

January 11, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. As Vice-President of the Board of Education of the City of Chicago, I am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms. The available funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools.

In particular, I am pleased to see the extent to which the RTTT proposal supports and aligns with current reform initiatives in the Chicago Public Schools. This includes closing or turning around underperforming schools, working with CPS teachers and administrators and private sector partners to open new schools, creating more choice for parents and guardians in neighborhoods that historically have been served by underperforming schools, and using student growth data to measure teacher and principal performance. Much of our work has been done with local funds. We view the Illinois RTTT proposal as an important source of additional funding that will allow us to improve and expand these programs.

At the same time that we look forward to the continued development of these programs in Chicago, we also believe that the knowledge and experience we have gained over the past several years will be of significant value to Illinois as it implements similar strategies at the state level. We look forward to partnering with ISBE in the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

Clare Muñana

Clare Muñana
Vice President

Cc: Jesse Ruiz
Ron Huberman

EXECUTIVE
COMMITTEE

John A. Canning, Jr.
Chair
Maria C. Bechily
John H. Catlin
Adela Cepeda
Frank M. Clark
Paula H. Crown
Judy Erwin
Michael W. Ferro, Jr.
Denise B. Gardner
Jack M. Greenberg
King W. Harris
Audrey R. Peoples
Quintin E. Primo III
Jesse H. Ruiz
Michael Tang

Terry Mazany
President and CEO

January 15, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

We are writing to applaud you for your efforts to secure funding from the U.S. Department of Education's "Race to the Top" ("RTTT") Fund. We are excited about the opportunity the federal RTTT grant would provide to help the State of Illinois make some needed reforms to improve education. The sorely needed resources will allow Illinois to continue to develop an educational system, from preschool to high school, which will prepare each and every child in Illinois for success in postsecondary education and the workforce and to lead a productive life.

The RTTT proposal supports the Illinois education reform agenda by assuring that we adopt world class standards and assessments for students, teachers and school leaders; by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes; by supporting the development of effective principals and teachers; and, by providing supports to turn around our most challenged schools.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes will succeed in postsecondary education and careers and will become a productive citizen.

The 18 members of The Race to the Top Initiative – a short-term collaborative fund of The Chicago Community Foundation—have already demonstrated our financial support to the Illinois State Board of Education (ISBE) for this important endeavor by providing a grant to develop this application. The foundations remain committed to continued conversations with the state to share ideas and strategies for the long-term improvement of education in Illinois.

On behalf of The Race to the Top Initiative collaborative fund, we look forward to continuing this partnership with the Illinois State Board of Education to improve education for all children.

Sincerely,

(b)(6)

Nora Moreno Cargie
Director of Global Citizenship
The Boeing Company Charitable Trust
Co-chair, Illinois Race to the Top Initiative

(b)(6)

Gudelia López
Senior Program Officer
Chicago Community Trust
Co-chair, Illinois Race to the Top Initiative

111 East Wacker Drive, Suite 1400, Chicago, IL 60601 | 312.616.8000 | Fax 312.616.7955 | www.cct.org

January 8, 2010

CHICAGOLAND
CHAMBER OF COMMERCE

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application on behalf of the 2,600 members of the Chicagoland Chamber of Commerce. Many of our members have served on advisory groups and participated in discussions that have shaped this application.

We believe that RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

We support the strong emphasis on high school reform and the focus on improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy. The Chicagoland Chamber has operated Future Founders, College Access Network and School-To-Work along with our members participating in many other in-school and out-of-school support programs. The Chamber has industry sector committees that are willing to become active in STEM Learning Exchanges activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students. We are definitely ready to participate in TDL, IT, and Energy. All of these efforts would be greatly enhanced with the implementation of the high school reform initiatives in the Illinois RTTT application.

On February 3, the Chamber is hosting an employer discussion of the National Career Readiness Certificate (NCRC). We expect that establishing a statewide program for students to obtain the NCRC will increase the numbers ready for a modern global economy and the NCRC will become an important career readiness credential relevant to a wide range of careers.

We look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application.

Sincerely,

(b)(6)

Gerald J. Roper
President & CEO

200 E. Randolph Street, Suite 2200, Chicago, IL 60601 www.chicagolandchamber.org 312.494.6700 fax: 312.861.0660

CONSORTIUM ON
CHICAGO SCHOOL RESEARCH
AT THE UNIVERSITY OF CHICAGO
URBAN EDUCATION INSTITUTE
CCSR
[illegible]

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Chris:

I am writing to express our enthusiastic support for Illinois's Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. On behalf of the Consortium on Chicago School Research (CCSR) at the University of Chicago, I am excited about the opportunity the federal RTTT grant provides for the State of Illinois to move forward on a set of ground-breaking education reforms. The available funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

CCSR will work to support the implementation of a number of components of the state's plan including its efforts to develop data systems to support instruction, produce and support great teachers and leaders, and turn around the state's lowest achieving schools. Specifically, CCSR will work as an active partner on the proposed Illinois Collaborative for Education Policy Research (ICEPR), an innovative state research and development partnership modeled directly on the experience of CCSR in Chicago. We believe the ICEPR will play a crucial role in shaping the state's learning about the implementation of RTTT priorities, help communicate these findings widely to key stakeholders in the state and assist practitioners in developing their own research capacity for data collection and analysis.

Our work in Chicago teaches us that careful, rigorous research on key policy priorities—research that is grounded in the problems practitioners face—can effectively build the capacity of education systems to improve over time. We are confident such a model can work equally well in a state committed to the kinds of far reaching reforms described in the Illinois plan.

We look forward to enthusiastically partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms.

Sincerely,

(b)(6)

Penny Bender Sebring
Interim Co-Executive Director and Founding Director
Consortium on Chicago School Research (CCSR)
University of Chicago Urban Education Initiative

T 773-702-3364 F 773-702-2010 ccsr.uchicago.edu

Council of Supply Chain Management Professionals
333 East Butterfield Road, Suite 140 Lombard, IL 60148-5617
phone 630.574.0985 fax 630.574.0989

CSCMP

January 14, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

This letters comes to you to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. I believe that RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

The strong emphasis on high school reform and the focus on improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy is of great need. I believe the State has identified important and effective high school reform initiatives in its RTTT application including establishing a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

The NCRC will be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

I am committed to support efforts with the State to implement the NCRC program and STEM-related Programs of Study throughout the state.

I am willing to assist efforts the State enacts in the planning and implementation of STEM Learning Exchanges for transportation, distribution and logistics. Where possible and where we can offer resources, I plan to support STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students.

I look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,

(b)(6)

Mr. Burt Blanchard
Director, Business Relations and Solutions
Council of Supply Chain Management Professionals

ED-RED
EDUCATION • RESEARCH • DEVELOPMENT

Erika N. Lindley
Executive Director

"The voice of suburban schools"

1131 South Dee Road
Park Ridge, Illinois 60068
Voice: 847-692-8048
Fax: 847-696-3254
http://www.ed-red.org

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

January 17, 2010

Dr. Koch:

I am writing to express support for the Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. ED-RED is excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms.

Illinois' financial situation will make it difficult to increase funding and necessary support to our districts over the next few years. The RTTT funding is especially important this year. The Illinois State Board of Education and education stakeholders have created a true reform agenda for the State with the support of the Illinois General Assembly and Governor Pat Quinn. The RTTT funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools. Thanks to the agency's leadership, the Illinois General Assembly passed two related pieces of legislation: strengthening the significance of teacher and principal evaluations and expanding the number of entities that can offer alternative certification programs. Both bills were signed into law by Governor Pat Quinn with his strong support. You and your staff successfully negotiated with education stakeholders and legislators and achieved a rare outcome – a collaborative legislative effort. I believe this illustrates the agency's interest in working with stakeholders during the implementation process to ensure our districts have the necessary tools to comply with the agency's vision. ED-RED strongly supports the legislation and will continue to support the agency's reform efforts.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world. In addition to RTTT, ED-RED will continue to support the agency's work to develop a statewide longitudinal data system and pursue the Common Core standards. We are excited about the potential of a data system networking local districts, higher education, and the state agency. This system will provide valuable information to our schools and assist our policy makers in determining priorities. As far as standards, there is much that Illinois can share and learn from other states, and this nationwide effort at has tremendous possibilities. Thank you, Dr. Koch, for your leadership in this national effort.

We look forward to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

Erika Lindley
Executive Director

Samuel J. Meisels, President
Irving and Neison Harris President's Chair
420 North Wabash Avenue
Chicago, Illinois 60611-5627
312-755-2250 t 312-755-0928 f
www.erikson.edu

Founded by Irving B. Harris

January 14, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. I, on behalf of Erikson Institute am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms. The available funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world.

In particular, Erikson Institute intends to support the implementation of the following components of the State's RTTT plan: Kindergarten Readiness Assessment and the K- Grade 3 professional development.

We look forward to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

Samuel J. Meisels
President

graduate school in child development
erikson institute

ILLINOIS COLLEGE OF EDUCATION

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for Illinois' Race to the Top (RTTT) Application for Initial Funding which you are submitting to the U.S. Department of Education. I, on behalf of the Forum on the Future of Public Education and our associates in the College of Education at the University of Illinois at Urbana-Champaign, am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward to a new level of collaboration among educational researchers, policymakers, and practitioners.

Illinois' public and private universities are blessed with a wealth of talent in educational research, and the Illinois Collaborative for Education Policy Research (ICEPR) will capitalize on these resources and focus them on the most important policy questions facing state and local leaders. The partners in ICEPR not only bring considerable expertise in policy research to the table, but they have extensive experience working with districts and practitioner organizations in the state. ICEPR's network and its commitment to capacity building will ensure that educational research in Illinois is targeted at high priority issues, expertly designed and led, efficiently implemented, broadly disseminated, and oriented toward improving programs and practice in Illinois schools.

When combined with the power of Illinois' integrated P-20 longitudinal database, ICEPR will substantially enhance the ability of Illinois' educational leaders to identify leaks in our educational pipeline and determine what interventions will best address those problems. The Forum on the Future of Public Education is excited to provide leadership to the creation of ICEPR and working with other partners to develop an aggressive agenda, including drafting a state educational research agenda and assessing the data analysis capacity of Illinois school districts. We look forward to partnering with the Illinois State Board of Education and other state agencies on the development and implementation of these RTTT proposed reforms and programs.

Sincerely,

Debra Bragg

Debra Bragg, Ph.D.
Professor, Educational Organization and Leadership
Director, Forum on the Future of Public Education
Director, Office of Community College Research and Leadership
University of Illinois at Urbana-Champaign

ILLINOIS

January 15, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. I believe that RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

I support the strong emphasis on high school reform and the focus on improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy. I believe the State has identified important and effective high school reform initiatives in its RTTT application including establishing a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

The NCRC will be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will help enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

I am committed to collaborating with the State to foster STEM-related Programs of Study throughout the state. IBM has a long history of fostering STEM education in the State of Illinois. As an IT company, we want to encourage the education community in training a workforce that is capable of using computing effectively. Facilitating STEM careers is the foremost societal concern of the IBM Corporation.

I look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,

Robert D. Reid, III

IBM Corporate Citizenship and Corporate Affairs
71 South Wacker Drive
20th Floor
Chicago, IL 60606

IAASE Illinois Alliance of Administrators of Special Education
A subdivision of the Council of Administrators of Special Education http://www.iaase.org
1324 Lantern Lights Circle, Lebanon, IL 62254

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

January 13, 2010

Dear Dr. Koch:

This letter is written to express support for the Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. On behalf of Illinois Alliance of Administrators of Special Education (IAASE) I am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms. The available funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world.

In particular, Illinois Alliance of Administrators of Special Education intends to support the implementation of the following components of the State's RTTT plan: providing effective support to teachers and principals, and intensive educator support for critical transition points as outlined in MOU support documentation.

We look forward to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,
(b)(6)

Susanne Carrescia
President, IAASE

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. I, on behalf of the Illinois Association of Regional Superintendents of Schools (IARSS), am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms. The available funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world.

In particular, the Illinois Association of Regional Superintendents of Schools intends to support the implementation of the following components of the State's RTTT plan: We are looking forward to working as a Lead Partner or Supporting Partner in the Illinois Partnership Zone, assisting low-performing schools.

We look forward to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

Gilbert E Morrison, Jr.
President, IARSS

☆ ILLINOIS
IASA
ASSOCIATION OF SCHOOL ADMINISTRATORS

BRENT CLARK, Ph.D.
Executive Director

January 15, 2010

Via Electronic Transmission and First Class Mail

Dr. Christopher A. Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street
Springfield, Illinois 62777

Re: Illinois Association of School Administration/Race to the Top Application

Dear Dr. Koch:

The purpose of this letter is to assist in Illinois' Race to the Top Application for Initial Funding ("RttT") as developed by the Illinois State Board of Education and submitted to the U.S. Department of Education on behalf of all Illinois children.

First, the IASA commends the Board, Administration and Staff of ISBE for all of its time, dedication and tireless effort in the development of Illinois' RttT Application for Initial Funding. The IASA recognizes and appreciates the work product given ever-decreasing funding and resources. It is our honor to work together in our collective quest to better public education in Illinois.

Furthermore, the IASA commits to work collectively and collaboratively with ISBE and all education stakeholders on behalf of Illinois school communities. The IASA will continue to lead and participate in meetings, committees and task forces, such as the Education Stakeholders Meeting, IASA/ISBE Advisory Committee, P-20 Council and Performance Evaluation Advisory Council, once established. It is the intent of the IASA to continue to work together with all education stakeholders to develop the best educational environment for all Illinois administrators, staff and children.

Last, the IASA will strive to facilitate development and implementation of laws, regulations, policies, protocols and procedures for the betterment of public education, given adequate supports, sustainable funding and all committed responsibilities of ISBE and the State and Federal government are provided. However, the IASA will not support legislation, regulations and/or policies which will negatively impact the employment of educational employees without justifiable cause or due process under the law. To this end, the IASA will make every effort to commit its time, talents and resources to ISBE and other education stakeholders for the sustained improvement of education in Illinois.

Yours for better schools.

(b)(6)

Dr. Brent Clark
Executive Director
Illinois Association of School Administrators

2648 Beechler Court ★ Springfield, Illinois 62703-7305 ★ 217/753-2213 ★ FAX 217/753-2240
Email: iasa@iasaedu.org World Wide Web: http://www.iasaedu.org

ILLINOIS
ASSOCIATION OF SCHOOL BUSINESS OFFICIALS

Northern Illinois University (IA-103)
108 Carroll Avenue, DeKalb, IL 60115

January 9, 2010

Via Electronic Transmission and First Class Mail

Dr. Christopher A. Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to provide support for the Race to the Top Application for Initial Funding ("RTTT"), which you are submitting to the U.S. Department of Education.

On behalf of the Illinois Association of School Business Officials ("Illinois ASBO") I pledge our continuing commitment to assist you and the Illinois State Board of Education ("ISBE") in the implementation of the RTTT grant. In addition, we will be pleased to collaborate with ISBE and other stakeholders and legislators to provide additional guidance toward the development and communication of related policies. We also pledge to work together with ISBE and other committees or task forces such as the Education Stakeholders, Illinois Education Roundtable, P-20 Council, and the Performance Evaluation Advisory Council as each has a role in recommending legislation, regulations, procedures and practices to support RTTT.

As you know, we share the concerns of all school districts and policy makers regarding the need for sufficient, reliable and sustainable funding to support the current and future system of public schools in Illinois. This includes both the initiation and maintenance of any new or continuing practices. RTTT is surely intended to make a difference for the children of Illinois and the receipt of this grant will assist all of us in making that a reality. That said, we are doubly committed to collectively maintaining the focus of policymakers and legislators on the need for ongoing funding. It has been our privilege to partner with ISBE in that objective and we will not diminish our support to that end.

Finally, as particular legislation, regulations, procedures and practices emerge, we will be dedicated to support those elements that do not unjustly impact the employment of teachers and school leaders. This is an excellent opportunity in Illinois to encourage sound policy and reform that will positively impact the future of children and we look forward to being an ongoing partner in RTTT.

Sincerely,

(b)(6)

Michael Jacoby
Executive Director

ph: 815.753.1276 | fax: 815.753.9367 | online: www.iasbo.org

534 S. Second Street, Suite 200
Springfield, Illinois 62701-1705
217/544-4014 • Fax: 217/544-0225

999 McClintock Drive, Suite 100
Burr Ridge, Illinois 60527-0844
312/251-1414 • Fax: 312/251-1420

OFFICERS
Michael T. Carrigan, President
Timothy E. Drea, Secretary Treasurer

www.ilafl-cio.org

January 15, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

As the president of the Illinois AFL-CIO, I am writing to express support for the State of Illinois' Race to the Top (RTTT) application. The Illinois AFL-CIO represents one million union members and is the voice of all working families in the state, and we welcome the opportunity to be a key partner in building a stronger workforce for Illinois.

I believe that the State's RTTT application will position Illinois as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines including careers in the construction industry.

STEM-related Programs of Study offer a promising approach for helping students build strong math and science skills by making real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of industry, government, education and the labor community to be partners in this effort.

The Illinois AFL-CIO is willing to serve as a partner with the State in the planning and implementation of the STEM Learning Exchange for Architecture and Construction. We are committed to supporting STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students.

Sincerely,

(b)(6)

Michael T. Carrigan
President

MTC/br
LIUNA362aflcio

ILLINOIS BIOTECHNOLOGY
INDUSTRY ORGANIZATION

Kris Lutt
CHAIRMAN, BOARD OF DIRECTORS

January 14, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express the iBIO Institute's strong support for—and pledge our assistance to—the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application.

World-class education is necessary for Illinois to develop a workforce able to meet the challenges of the global economy. At iBIO, as at Archer Daniels Midland Company (ADM), we believe that RTTT presents an unparalleled opportunity for Illinois to serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

I also support the application's strong emphasis on high school reform and the focus on improving transitions into both college and careers. I believe the State has identified important high school initiatives in its RTTT application including establishment of a statewide program for the National Career Readiness Certificate (NCRC) as well as development and scaling of STEM-related Programs.

iBIO Institute and its corporate partners successfully partnered with the State of Illinois' Department of Commerce and Economic Opportunity and State Board of Education on Illinois Innovation Talent, a STEM-focused, industry-led, problem-based learning pilot program. This novel program demonstrated the transformation possible when students connect academic learning with real-world careers and professionals.

65 East Wacker Place
Suite 1600
Chicago IL 60601

Phone 312-422-1111

Fax 312-422-1145

Each day, the employees of ADM transform crops such as corn, oilseeds, wheat and cocoa into food ingredients, animal feeds, and agriculturally derived fuels and chemicals that serve vital needs of the global marketplace. The NCRC will be an important career readiness credential relevant to a wide range of careers. And STEM Learning Exchanges are important to the success of STEM-related programs of study, because they bring together the resources and expertise of a wide range of business and industry, education and government partners.

The iBIO Institute is willing to serve as a partner with the State in the planning and implementation of STEM Learning Exchanges for Health Sciences and Agriculture and Natural Resources. Specifically, we are committed to growing and leveraging our existing Institute programs—such as SCI: Science Career Investigation®, and TalentSparks!® teacher professional development in biotechnology to support the RTTT plan. We will continue to assist STEM Learning Exchange activities promoting the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students.

Governor Quinn, I look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and let me know if there is anything further I and the iBIO Institute can do to support this important work.

Sincerely,

(b)(6)

Kris Lutt
Advisor-Office of the Chairman
Archer Daniels Midland Company
Chairman, board of directors, iBIO

ILLINOIS BOARD OF HIGHER EDUCATION

431 EAST ADAMS STREET, 2ND FLOOR
SPRINGFIELD, ILLINOIS 62701-1404

Pat Quinn
Governor

Carrie J. Hightman
Chicago
Chairwoman

Lucy A. Sloan
Carbondale
Vice Chair

Members
Guy Alongi
DuQuoin

Jay D. Bergman
Joliet

Frances G. Carroll
Chicago

Alice B. Hayes
Chicago

Donald J. McNeil
Chicago

John P. Minogue
Chicago

Proshanta K. Nandi
Springfield

Robert J. Ruiz
Oak Lawn

Elmer L. Washington
Park Forest

Addison E. Woodward, Jr.
Palos Park

Student Members
Dimitri Kametas
Oak Lawn

William Obuchowski
Oak Lawn

Executive Director
Judy Erwin

January 16, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top ("RTTT") grant proposal that you are submitting to the U.S. Department of Education. We are excited about the opportunities for constructive change across the broad range of education policies and practices that are presented in Illinois' RTTT application. The resources RTTT will bring to Illinois schools will give those changes positive practical effect in the educational attainment of Illinois students.

The Illinois Board of Higher Education looks forward to working with you, other policymakers, our school districts, and our colleges and universities as the state moves forward with the changes in policy and practice promised in the RTTT application. We also pledge to continue developing with you and the education community the culture of evidence that is required to measure progress toward the goals of RTTT.

Sincerely,

Judy Erwin
Executive Director

Phone: (217) 782-2551 • Fax: (217) 782-8548 • TTY: (888) 261-2881 • www.ibhe.org

Printed on Recycled Paper

IBRT
The Illinois Business RoundTable

200 East Randolph Street
Suite 2200
Chicago, IL 60601
Ph: 312-228-0731 | Fx: 312-228-0732
www.IllinoisBusinessRoundtable.com

January 11, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express strong support for the comprehensive education reforms outlined in the State of Illinois' Race to the Top ("RTTT") application.

Having been involved in education improvement efforts in Illinois for the last two decades, this application represents both a stretch and a road map for meaningful improvement strategies. This is completely in keeping with the intent of the RTTT challenge. It is my expectation that local districts choosing to participate in the state application will be equally stretched.

Illinois' application builds rationally upon some of the great things we've been able to accomplish recently in Illinois. Just last spring we put in place a longitudinal data system. This application will enhance it and move it forward faster. With better data, a statewide performance management system is proposed that will link student performance to teacher evaluations and program effectiveness. Illinois' newly constituted P-20 Council will guide future state efforts to build the seamless education and workforce development system, using these enhanced tools.

This application will also offer students multiple rigorous and valid pathways to college and careers. Toward this end, it establishes clear college and work-ready expectations with both the ACT standardized assessment and the ACT's National Career Readiness Certificate ("NCRC"), built into our Prairie State Achievement Exam taken by all Juniors in high school. I am committed to partnering with the State to implement the NCRC program, and look forward to participating in NCRC-related career development programs for students and working to promote the NCRC as a tool for verification of workplace skills.

This application also uniquely positions STEM-related Programs of Study with Learning Exchanges in eight targeted industry clusters to offer a useful structural approach for high school reform that will enable students to make real-world connections with their academic and career interests. Given Illinois' pre-immanence regionally and nationally as a financial and insurance services hub, I would suggest Illinois add the financial services cluster to the learning exchange section.

Chairman
RICHARD D. STEPHENS
The Boeing Company

Vice Chairman
EDWARD B. RUST JR.
State Farm Insurance Co.

Secretary - Treasurer
RUSS M. STROBEL
Nicor, Inc.

President
JEFFREY D. MAYS
Illinois Business Roundtable

Chairman Emeritus
THOMAS M. PATRICK
Peoples Energy Corp.

I am committed to support STEM Learning Exchange activities by contributing to professional development programs, collaborating to develop real-world interdisciplinary problems for students, and developing opportunities for students to transmit job applications and receive information about career opportunities through STEM Learning Exchanges.

I look forward to working with the State of Illinois and other stakeholders to implement the programs outlined in *Illinois' Race to the Top application*. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely

(b)(6)

Jeff Mays, President
Illinois Business Roundtable

Illinois Community College Board

Guy H. Alongi
Chairman

Geoffrey S. Obrzut
President/CEO

proudly serving the
Illinois Community College System

January 13, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. I, on behalf of the Illinois Community College Board, am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms. The available funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world.

In particular, the Illinois Community College Board intends to support the implementation of the following components of the State's RTTT plan: College and career-ready standards and high-quality assessment and Pre-K through college and career data systems.

We look forward to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

Geoffrey S. Obrzut

401 East Capitol Avenue • Springfield, Illinois 62701-1711 • (217) 785-0123 • www.iccb.state.il.us
Fax: (217) 524-4981 TDD: (217) 782-5645
Printed on Recycled Paper

dceo Illinois Department of Commerce and Economic Opportunity

Pat Quinn
Governor

Warren Ribley
Director

January 13, 2010

The Honorable Pat Quinn
Governor, State of Illinois
James R. Thompson Center
100 West Randolph Street, Suite 16-100
Chicago, Illinois 60601

RE: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn:

I am writing to express strong support for the State of Illinois' Race to the Top (RTTT) application.

I believe the RTTT application will position Illinois as a leader in preparing students in science, technology, engineering, and mathematics (STEM) careers that are critical to growth and development of all major critical sectors in Illinois including agriculture, construction, information technology, manufacturing, transportation and logistics, and healthcare, as well as the emerging energy sector.

The Illinois Department of Commerce and Economic Opportunity is committed to serve as a partner in the planning and implementation of STEM Learning Exchanges for all STEM areas.

In addition, as co-chair of the Illinois Workforce Investment Board (IWIB) and chair of the IWIB State Energy Sector Partnership, I will work with other public and private partners to plan and implement the Energy Learning Exchange.

Sincerely,

Warren Ribley

Warren Ribley
Director

Internet Address http://www.commerce.state.il.us

620 East Adams Street
Springfield, Illinois 62701-1615
217/782-7500
TDD: 800/785-6055

James R. Thompson Center
100 West Randolph Street, Suite 3-400
Chicago, Illinois 60601-3219
312/814-7179
TDD: 800/785-6055

2309 West Main, Suite 118
Marion, Illinois 62959-1180
618/997-4394
TDD: 800/785-6055

Printed on Recycled and Recyclable Paper

www.ieanea.org

Illinois Education Association-NEA

Ken Swanson, President
Robert Blade, Vice President
Cinda Klickna, Secretary-Treasurer
Audrey Soglin, Executive Director

100 East Edwards Street
Springfield, IL 62704-1999
(217) 544-0706 Fax 217.544.7383

January 15, 2010

Dr. Christopher Koch, State Superintendent
Illinois State Board of Education
100 North First Street
Springfield, IL 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top Application for Initial Funding (RTTT), which you are submitting on the state's behalf to the U.S. Department of Education.

The RTTT grant has the potential to move our state forward through the implementation of ground-breaking, transformative education reforms. This federal funding would allow Illinois to continue to develop an educational system that will prepare every child in Illinois for postsecondary education and the workforce.

On behalf of the more than 133,000 Illinois Education Association (IEA) members, I want to express my appreciation to you and the Illinois State Board of Education (ISBE) for your willingness to work closely with IEA in the development of the RTTT grant proposal. Because you and the board considered the expertise of our classroom educators, Illinois was able to submit a high-quality proposal that gives the students in our state the best opportunity to benefit from this grant program.

Should the Illinois proposal be selected for funding, we will be prepared to continue the collaboration between ISBE and the educators who have agreed to participate in RTTT.

The mission of the IEA is "to effect excellence and equity in public education." The RTTT application, because it was developed collaboratively, aligns very well with the IEA mission.

In addition, IEA believes it is important to recognize that our public schools, the dedicated staff who work in them and the school boards who oversee them, cannot be exclusively held accountable for student achievement. Students themselves, parents, communities and those at the state and federal level who are responsible for providing the resources necessary for EVERY school and EVERY child to succeed, must also be held accountable. Only when every stakeholder fully participates and lives up to his/her obligations will we truly provide an opportunity for every child to attain success.

We are committed to supporting our local associations who have agreed to participate in Illinois' grant application. We will encourage all involved in the grant to work collaboratively to develop and implement their local plans. As always, we will wholeheartedly support our members in their efforts to continue to improve Illinois' public schools and the teaching profession.

Sincerely,

Ken Swanson

Ken Swanson, President

KS/mjb

Illinois Education Research Council

SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE, EDWARDSVILLE, ILLINOIS 62026-1064
Telephone: 866-799-IERC (4372) or 618.650.2840. E-mail: *ierc@siue.edu* Web site: ierc.siue.edu

2010 ADVISORY BOARD

INSTITUTIONAL MEMBERS

CONSORTIUM ON CHICAGO SCHOOL RESEARCH
Sue Sporte

ILLINOIS ASSOCIATION OF INSTITUTIONAL RESEARCH
Marilyn Marshall

ILLINOIS BOARD OF HIGHER EDUCATION
Judy Erwin
Deborah Meisner-Bertauski

ILLINOIS COMMUNITY COLLEGE BOARD
Karen Hunter Anderson
Elaine Johnson
Scott Parke

ILLINOIS STATE BOARD OF EDUCATION
Christopher Koch
Linda Tomlinson

ILLINOIS STUDENT ASSISTANCE COMMISSION
Susan Kleemann

OFFICE OF THE GOVERNOR
Julie Smith

PUBLIC EDUCATION DEANS
Lemual Watson

SOUTHERN ILLINOIS UNIVERSITY
Paul Sarvela

INDIVIDUAL MEMBERS

Bette Bergeron
Southern Illinois University Edwardsville

Linda Chapman
Lewis and Clark Community College

Charles Evans
University of Illinois

Erika Hunt
Illinois SAELP Project

Mary McDonald
Consortium for Educational Change

Cordelia Meyer
Civic Committee of the Commercial Club of Chicago

James Pellegrino
University of Illinois at Chicago

Diane Rutledge
Large Unit District Association

Nancy Slavin
Chicago Public Schools

William Trent
University of Illinois at Urbana-Champaign

January 13, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top Application for Initial Funding (RTTT) which you are submitting to the U.S. Department of Education. I, on behalf of the Illinois Education Research Council, am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms. The available funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world.

In particular, the Illinois Education Research Council intends to support the implementation of the following components of the State's RTTT plan: *updating and refining the IERC Index of Teacher Academic Capital (ITAC) to analyze the equitable distribution of highly effective teachers and principals throughout the state. The IERC will also participate in the Educational Research Collaborative Steering Committee and Board, and will continue to serve on the Technical Advisory Group for the Illinois Longitudinal Data System.*

We look forward to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

Kathleen S. Brown

Kathleen Sullivan Brown, Ph.D.
Executive Director

A Union of Professionals

Illinois Federation of Teachers

500 Oakmont Lane
P.O. Box 390
Westmont, IL 60559
T: 630/468-4080
F: 630/468-4089
www.ift-aft.org

Ed Geppert, Jr.
PRESIDENT

Marilyn Stewart
SECRETARY-TREASURER

An affiliate of the AFT, AFL-CIO

January 15, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

On behalf of the 103,000 members of the Illinois Federation of Teachers, I am writing to express support for Illinois' Race to the Top (RttT) Application for Initial Funding which you are submitting to the U.S. Department of Education. Thanks to the work of the Illinois State Board of Education (ISBE), the Illinois General Assembly, and Gov. Pat Quinn's office, Illinois has in place many innovative projects to satisfy the assurance areas of the Race to the Top grant.

The IFT recognizes that ISBE and Illinois' 870-plus school districts are in dire need of funding to support the state's many current, strong education reform initiatives and that there is a need for federal funds to fill the gaps until an equitable, sustainable source of state funding is available. RttT funds can begin to fill these gaps for ISBE and participating RttT districts. These initiatives include:

- a fully-functioning longitudinal data system and learning and performance management system that every classroom teacher is able to access throughout the school day;
- induction-mentoring programs for all new teachers;
- an effective, research-based Response to Intervention process implemented in every school; and
- continued work to align the Illinois Learning Standards to the Common Core initiative, to revise K-12 standards, and to implement updated Learning Standards in every classroom, as well as develop new state and local assessments aligned to updated standards.

While the IFT supports the state's application for RttT grant funds, we are concerned that the conditions placed on states to access these funds are driven by a reform agenda that does not necessarily include a strong foundation in all of the critical supports for educators and school systems. The IFT believes that sustained, effective initiatives can have a long-term impact on students' education and post-secondary success, but that impact will not occur without addressing the following concerns:

- Illinois' state education agency itself must have the necessary capacity and staffing levels built within the system to allow for supports to school districts and educators as reforms are implemented.
- Sustained funding sources at the state level must be in place to support education initiatives beyond RttT.

- Research-based improvement strategies beyond RttT grant guidelines must be included as well, with an emphasis on the necessary supports and collaboration time required to implement.
- Student growth being included as a significant factor in teacher evaluation without strong, research-based evidence to show positive impacts on student achievement must not be allowed to divert local resources and focus from vital education initiatives.

In particular, the IFT intends to support the implementation of Illinois' RttT plan by working at both a state and local level. The IFT commits to participate in state-level work to implement RttT activities in a collaborative way with ISBE and other education stakeholders. Moreover, the IFT will work with our local unions to provide information and assistance in their efforts on RttT initiatives with their school districts. The IFT recognizes that effective state and district leadership in collaboration with union leaders and school staff will bring about real and positive changes that will have a lasting impact on both educator professional growth and student outcomes.

The Illinois Federation of Teachers looks forward to partnering with the Illinois State Board of Education on the development and implementation of the state's Race to the Top proposal.

Sincerely,

(b)(6)

Ed Geppert, Jr.
President

ILCAE *Illinois Leadership Council for Agricultural Education* **ICAE** *Illinois Committee for Agricultural Education*

January 11, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

The Illinois Committee for Agricultural Education (ICAE) and the Illinois Leadership Committee for Agricultural Education (ILCAE) are writing to express strong support for the State of Illinois' Race to the Top (RTTT) application.

We believe that RTTT application will position Illinois as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines which includes careers in the agriculture sector.

STEM-related Programs of Study offer a promising approach for helping students build strong math and science skills by making real-world connections with their academic and career interests. This approach is already being used successfully in agricultural education.

STEM Learning Exchanges, based on a long-standing successful model from Illinois Agricultural Education, are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of industry, government and education partners.

Both ICAE and ILCAE are committed to continue working with the State in supporting STEM-related Programs of Study in Agriculture and Natural Resources. We also will work cooperatively through consultation with other STEM Learning Exchanges in supporting the growth of STEM-related Programs of Study throughout Illinois.

Sincerely,

(b)(6)

David Mouser
ICAE Chair

(b)(6)

Michael Massie
ILCAE Chair

200 South Fredrick • Rantoul, IL 61866
Where Education and Industry Meet

ILLINOIS SCIENCE &
TECHNOLOGY COALITION

200 East Randolph, Suite 2200
Chicago, IL 60601
T 312 494 6747
F 312 861 0660
istcoalition.org

January 15, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

On behalf of the Illinois Science & Technology Coalition, I am writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. I believe that RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

The Illinois Science & Technology Coalition (ISTC) cultivates economic development in Illinois by advocating for increased resources for Research & Development initiatives at Illinois-based institutions and businesses and is active in the industries of advanced manufacturing, agriculture, energy, information technology, life sciences, and supercomputing. Improvement in student performance in STEM disciplines will help build a workforce educated to meet the demands to ensure a bright economic future for Illinois.

The ISTC also offers our services as a planning and implementation partner to the State in the planning and implementation of STEM Learning Exchanges for Research & Development. In particular, the ISTC is committed to supporting STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students.

The ISTC supports the strong emphasis on high school reform and the focus on improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy. The important and effective high school reform initiatives identified are consistent with the interests of the ISTC, including establishing a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

The NCRC promises to be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-

ILLINOIS SCIENCE & TECHNOLOGY COALITION

related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

The ISTC is committed to partnering with the State to implement the NCRC program and STEM-related programs of study throughout Illinois.

We look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application.

Sincerely,

(b)(6)

Matthew Summy
President & CEO

January 15, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Dear Governor Quinn,

I am writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. I believe that RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

I support the strong emphasis on high school reform and the focus on improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy. I believe the State has identified important and effective high school reform initiatives in its RTTT application including establishing a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

The NCRC will be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

I am committed to partnering with the State to implement the NCRC program and STEM-related Programs of Study throughout the state.

I am willing to serve as a partner with the State in the planning and implementation of STEM Learning Exchanges for transportation, distribution and logistics. I am committed to supporting STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students.

I look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,

Michael A. Johl

Chairman
Illinois TDL Task Force

Michael A. Johl, LLC Consulting 3038 N. 76th Avenue Elmwood Park, Illinois 60707 Phone 312-316-6070 Fax 708-452-7026

ILLINOIS TRUCKING ASSOCIATION

Good stuff. TRUCKS BRING IT

7000 S. Adams St., Suite 130, Willowbrook, IL 60527
(630) 654-0884 (630) 654-0899 – fax www.iltrucking.org

January 15, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. I believe that RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

I support the strong emphasis on high school reform and the focus on improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy. I believe the State has identified important and effective high school reform initiatives in its RTTT application including establishing a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

The NCRC will be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

I am committed to partnering with the State to implement the NCRC program and STEM-related Programs of Study throughout the state.

I am willing to serve as a partner with the State in the planning and implementation of STEM Learning Exchanges for transportation, distribution and logistics. I am committed to supporting STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students.

I look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,

George A. Billows

George A. Billows
Executive Director
Illinois Trucking Association

TRUCKS BRING

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. I, on behalf of the Interactive Illinois Report Card project, am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms. The available funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world.

In particular, the Interactive Illinois Report Card (http://iirc.niu.edu) intends to support the implementation of the following components of the State's RTTT plan:

1. Standards & Assessments: IIRC is committed to assisting with developing and hosting the array of improved school performance benchmarks, assessments for learning, and performance measures in the RTTT plan including interactive access to the Common Core standards and STEM learning exchanges, much as we currently post the full portfolio of assessment and instructional resources on the user-friendly web site on behalf of your agency;
2. Data Systems to Support Instruction: IIRC will provide all necessary technical assistance with the roll-out of the student data system with classroom applications for teachers and administrators; we will build on our current proven experience hosting in a web environment individual student assessment reports and other learning metrics (under secured access) available to educators in all districts in Illinois, through our partnership with your agency. This current system provides a fully tested preliminary data program that can be scaled up quickly to support the ambitious but achievable goals of your agency's RTTT.
3. Intensive Educator Support for Critical P-20 Transitions: as a university-based project, IIRC is positioned to assist in developing workshops, professional development programs, and on-line resources to support the laudable RTTT initiatives for intensive educator support, particularly with respect to the middle-to-high school transition and career and college readiness.

We look forward to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

[signed]
Harvey Smith, Ph.D.
Director, Interactive Illinois Report Card

Northern Illinois University is an Equal Opportunity/Affirmative Action Institution.

January 15, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street
Springfield, IL 62777

Dear Dr. Koch:

This letter serves as support for the Race to the Top Application for Initial Funding (RTTT), which you are submitting to the U.S. Department of Education on behalf of the Large Unit District Association (LUDA). It is with great sincerity and earnestness that this support is offered.

Our member districts, who make up over half of the children of the state of Illinois, will be the recipients of the broad transformation that will occur due to our state's involvement in Race to the Top. This application reflects the education reform agenda that can become reality with the support of federal resources.

The receipt of this grant will ensure the development and implementation of standards and assessment systems, data systems, recognition systems, and support systems. It will ensure new certification, preparation, and evaluation programs. It will address the needs of our highest priority schools, while providing ongoing induction, mentoring, and professional development for our teachers and leaders. It will serve as the lever for making transformation and continuous improvement a reality in the state of Illinois.

It is with confidence that I believe this enormous undertaking will succeed having watched the collaboration among the education stakeholders of our state grow during the tenure of Dr. Koch as our state superintendent. Additionally, the alignment of our P-20 system is guaranteed through the growing relationship among our Illinois State Board of Education, Illinois Community College Board, and the Illinois Board of Higher Education. The increasingly strong relationship among key legislators, the governor's office, and our state board of education will ensure the authentic implementation of this plan.

LUDA members make up a large percentage of participating districts in Race to the Top. As the largest unit districts in our state, these districts reflect some of the greatest need, while recognizing the need to take the boldest steps for reform. They will be revising their performance evaluations, they will be developing new data systems, implementing new assessment, and finding means to get the most effective educators to their most needy schools, among other reforms.

In closing, I want to stress my personal respect and admiration for those individuals who worked tirelessly in developing this application. Through their leadership and hard work, educators from all over our state have communicated and built stronger relationships that will endure this implementation to make education in Illinois enhanced for all of our students.

Most sincerely,

Diane Rutledge, Ph.D.
Executive Director, LUDA

LOYOLA
UNIVERSITY CHICAGO
1870
AD · MAJOREM · DEI · GLORIAM

David P. Prasse, Ph.D.
Dean, School of Education
820 N. Michigan| Chicago, Illinois 60611
p (312) 915-6992
dprasse@luc.edu

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. I, on behalf of the School of Education, Loyola University Chicago am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms. The available funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world.

In particular, the School of Education at Loyola University Chicago intends to support the implementation of the following components of the State's RTTT plan: Improving the Effectiveness of Teacher and Principal Preparation, Implementing a Statewide Longitudinal Data System, and Supporting Enhanced Standards and High Quality Assessments.

We look forward to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

David P. Prasse, Ph.D.
Dean, School of Education
Loyola University Chicago

MCHC

January 15, 2010

Officers and Directors

Chairman
Bruce C. Campbell
Senior Consultant
Advocate Health Care

Chairman-Elect
Dennis A. Reilly
President/Chief Executive Officer
Little Company of Mary Hospital and Health Care Centers

Past Chairmen
James T. Frankenbach

Treasurer
Barry C. Finn
President/Chief Executive Officer
Rush-Copley Medical Center

President/Chief Executive Officer
Kevin Scanlan

Alan H. Channing
President/Chief Executive Officer
Sinai Health System

James A. Cobick, Jr., MBA, FACHE
Hospital Administrator
Shriners Hospitals for Children-Chicago

David L. Crane
President/Chief Executive Officer
Adventist Midwest Health

John J. DeNardo, MPH, FACHE
Chief Executive Officer
University of Illinois Healthcare System

Phillip Kambic
President/Chief Executive Officer
Riverside Medical Center

Brian Lemon
Chief Executive Officer
MacNeal Hospital

Thomas J. McAfee
President/Chief Executive Officer
Lake Forest Hospital

Jesus M. Ong
President/Chief Executive Officer
South Shore Hospital

Paul Pawlak
President/Chief Executive Officer
Silver Cross Hospital

Patricia Shehorn
Executive Vice President and
Chief Executive Officer
Westlake Hospital

Joanne Smith, M.D.
President/Chief Executive Officer
Rehabilitation Institute of Chicago

Sister Elizabeth Van Straten
President/Chief Executive Officer
Saint Bernard Hospital and Health Care Center

Thomas L. Wright
President/Chief Executive Officer
Delnor-Community Hospital

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

The Metropolitan Chicago Healthcare Council (MCHC) is writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. I believe that RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

As a membership association representing 95 hospitals in the Chicago that employ more than 158,720 full-time job equivalent employees, making health care the number one employer in the region, MCHC supports the strong emphasis on high school reform and the focus on improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy. We believe the State has identified important and effective high school reform initiatives in its RTTT application including establishing a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

The NCRC will be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

MCHC is committed to partnering with the State to implement the NCRC program and STEM-related Programs of Study throughout the state. We are happy to serve as a partner with the State in the planning and implementation of STEM Learning Exchanges the Health Sciences. We commit to supporting STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students.

We look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,

(b)(6)

Mary Anne Kelly
Vice President, Metropolitan Chicago Healthcare Council

January 14, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. I believe that RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

I support the strong emphasis on high school reform and the focus on improving transitions into both college and careers– ensuring the development of a well-educated workforce ready for a modern global economy. I believe the State has identified important and effective high school reform initiatives in its RTTT application including establishing a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

The NCRC will be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

I am committed to partnering with the State to implement the NCRC program and STEM-related Programs of Study throughout the state.

I am willing to serve as a partner with the State in the planning and implementation of STEM Learning Exchanges for **(SELECT ONE OR MORE AREAS FROM 8 INITIAL AREAS LISTED ON THE SUMMARY).** I am committed to supporting STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students.

I look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,

(b)(6)

Shelley Metzgrach
Central Region Citizenship Director,
Microsoft Corporation
200 E. Randolph, Suite 200
Chicago IL 60610

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

National Center for Supercomputing Applications

1008 NCSA Building
1205 West Clark Street
Urbana, IL 61801

January 11, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

The National Center for Supercomputing Applications at the University of Illinois Urbana-Champaign strongly supports the educational reforms outlined in the State of Illinois' Race to the Top (RTTT) application. It is well aligned with our own goals and vision to improve student understanding and performance, particularly in science, technology, engineering and mathematics (STEM). Given the tremendous assets possessed by the state, we believe that Illinois can be a leader in preparing students for the 21st Century workforce.

For more than 20 years, NCSA has been a leader in deploying robust high-performance computing resources and in working with research and education communities to develop new computing and software technologies. Building on this history of leadership, NCSA and its partners are currently at work on the Blue Waters project, which will provide the national research community with a sustained-petaflop supercomputer—called Blue Waters—that is an order of magnitude more powerful than the current computing resources available for non-classified scientific research. This dramatic increase in computing capability has the potential to create breakthrough advances in all fields of science and engineering, including predicting the behavior of complex biological systems, understanding the production of heavy elements in supernovae, designing catalysts and other materials at the atomic level, predicting changes in the earth's climate and ecosystems, and designing complex engineered systems from chemical plants to airplanes.

Since its inception, the Center has considered education to be a top priority. Few benefits of the national cyberinfrastructure, including its top-end supercomputers, will be realized without scientists and engineers who understand the new capabilities that it provides, and can use these capabilities to address the nation's most pressing problems. Toward that end, we are focused on bringing *computing and computation into the classroom* to help students understand basic scientific concepts and to bridge the gap between research and education. Many of our activities and programs include disseminating advanced technologies to new and established communities (including the educational community),

ensuring that the benefits of the national cyberinfrastructure are made available to educators and students throughout the country. Access to Blue Waters places NCSA, the University of Illinois and the state of Illinois in a unique position in regard to STEM education.

The NCSA strongly supports the RTTT emphasis on high school educational reform and the focus on improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy. The Institute for Chemistry Literacy through Computational Science (ICLCS) project, which is a partnership of NCSA, the Department of Chemistry and the College of Medicine, has shown that the use of computational tools to teach basic chemical concepts has the potential to revolutionize the teaching of chemistry in high school. Working with teachers from Illinois' rural high schools, this project has shown that teachers and students enthusiastically embrace the use of computational tools in the classroom. Measurable results show clear, improved performance of students on standardized chemistry tests, and an increased student interest in chemistry.

The National Career Readiness Certificate (NCRC), and scaling STEM-related Programs of Study will be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they bring together the resources and expertise of a wide range of business and industry, education and government partners.

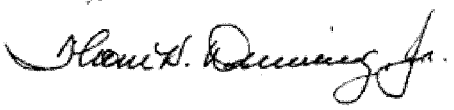
The NCSA would be pleased to partner with the State to implement the NCRC program and STEM-related Programs of Study throughout the state in the following ways:

1. *Cloud Computing Infrastructure for Education*: Acquire, deploy and operate a cloud computing environment for the Learning and Performance Management System delivered by a team of world-renowned computer scientists and educators. Develop/re-tool existing software applications needed to analyze the data, as well as contributing to the design of the LPMS.
2. *Blue Wave in Science Education in Illinois*: Partner with IMSA and other Illinois high schools to create a "Blue Wave in Science Education in Illinois" modeled after the ICLCS project, but extended to all areas of science and to all Illinois high schools, using the cloud computing environment above. This model will be implemented as part of each STEM Learning Exchange and includes a robust professional development component for teachers in STEM disciplines and the development and maintenance of a Virtual Professional Learning Community.
3. *SuperQuest Program for Exceptional Students*: Develop a SuperQuest program that provides a platform for a competition where students of all achievement levels compete and collaborate virtually on computational projects across STEM disciplines in partnership with researchers and industry.

All of these activities would be undertaken by the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign at cost.

We are proud to be working with the state of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,



Thom H. Dunning, Jr.

Director, National Center for Supercomputing Applications
Director, Institute for Advanced Computing Applications and Technologies
Distinguished Chair for Research Excellence in Chemistry
University of Illinois at Urbana-Champaign

xc: Danny Powell, Executive Director, National Center for Supercomputing Applications
Edee Wiziecki, Educational Division, National Center for Supercomputing Applications

NORTHROP GRUMMAN

Dr. Robert L. Del Boca
Sector Vice President & General Manager
Defensive Systems Division

December 23, 2009

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express strong support for the comprehensive education reforms outlined in the State of Illinois' Race to the Top ("RTTT") application.

Having been involved in education improvement efforts in Illinois for the last two decades, this application represents both a stretch and a road map for meaningful improvement strategies. This is completely in keeping with the intent of the RTTT challenge. It is my expectation that local districts choosing to participate in the state application will be equally stretched.

Illinois' application builds rationally upon some of the great things we've been able to accomplish recently in Illinois. Just last spring we put in place a longitudinal data system. This application will enhance it and move it forward faster. With better data, a statewide performance management system is proposed that will link student performance to teacher evaluations and program effectiveness. Illinois' newly constituted P-20 Council will guide future state efforts to build the seamless education and workforce development system, using these enhanced tools.

This application will also offer students multiple rigorous and valid pathways to college and careers. Toward this end, it establishes clear college and work-ready expectations with both the ACT standardized assessment and the ACT's National Career Readiness Certificate ("NCRC"), built into our Prairie State Achievement Exam taken by all Juniors in high school. I am committed to partnering with the State to implement the NCRC program, and look forward to participating in NCRC-related career development programs for students and working to promote the NCRC as a tool for verification of workplace skills.

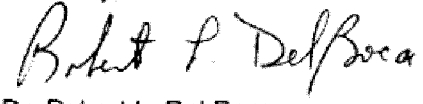
This application also uniquely positions STEM-related Programs of Study with Learning Exchanges in eight targeted industry clusters to offer a useful structural approach for high school reform that will enable students to make real-world connections with their academic and career interests. I would suggest Illinois add two additional clusters: financial services and the arts.

Northrop Grumman Corporation 600 Hicks Road, Rolling Meadows, Illinois 60008
Telephone 847-590-3100 Fax 847-818-5788 robert.delboca@ngc.com

I am committed to support STEM Learning Exchange activities by contributing to professional development programs, collaborating to develop real-world interdisciplinary problems for students, and developing opportunities for students to transmit job applications and receive information about career opportunities through STEM Learning Exchanges.

I look forward to working with the State of Illinois and other stakeholders to implement the programs outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,



Dr. Robert L. Del Boca
Sector Vice President and General Manager
Defensive Systems Division
Electronic Systems

RLD:es

Northrop Grumman Corporation 600 Hicks Road, Rolling Meadows, Illinois 60008
Telephone 847-590-3100 Fax 847-818-5788 robert.delboca@ngc.com

the Ounce

OUNCE OF PREVENTION FUND
33 WEST MONROE STREET
SUITE 2400
CHICAGO, IL 60603

P: 312.922.3863
F: 312.922.3337

SPRINGFIELD OFFICE
1 WEST OLD STATE CAPITOL PLAZA
MYERS BUILDING SUITE 716
SPRINGFIELD, IL 62701

P: 217.522.5510
F: 217.522.5545

ounceofprevention.org

Irving B. Harris
FOUNDER

Dick Rothkopf
CHAIRMAN

Harriet Meyer
PRESIDENT

Diana Mendley Rauner, Ph.D.
EXECUTIVE DIRECTOR

BOARD OF DIRECTORS
Billie Wright Adams, M.D.
Curt R. Bailey
Susan Baird
Francis Beidler, III
Jacalyn Bucksbaum
Susan Buffett
Mawiyah Coates
Michael P. Cole
Eloise H. Cornelius
Pastor Thomas Cross, Sr.
Deborah Daro, Ph.D.
Kelly King Dibble
Yvette Evans
Marilyn Fields
Marquna Fields
Lula M. Ford
Bill Friend
Keith Kiley Goldstein
Marcia (Busy) Hellman
Alan King
Timothy J. Landon
Charles Polsky, M.D.
J.B. Pritzker
Raul I. Raymundo
Dick Rothkopf
Jean Schdeumer
Catherine M. Siegel
Joyce Skoog
Harrison I. Steans
Anne L. Tuohy
Angela Walker
Kelvin White
Helen Zell

HONORARY
FOUNDING DIRECTORS
Gregory L. Coler
Paul Metzger
Bernice Weissbourd

January 15, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

On behalf of the Ounce of Prevention Fund, I am pleased to submit this letter of support for the Race to the Top (RTTT) application for initial funding which you are submitting to the U.S. Department of Education. This is an exciting time for education in the country and the state. Illinois truly believes that in order to prepare children for success in school and in life, education needs to begin at birth. Recently the governor convened a P-20 Council to ensure that the education continuum is coordinated at every level. And, just this week, Governor Quinn reminded us in his State of the State address of his commitment to investing in "accountable education programs."

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders, by providing them with access to the necessary data and tools to improve student outcomes and to turn around our most challenged schools.

We are particularly excited about the state's plans to develop and implement a Kindergarten Readiness Measure to promote instructional alignment from PreK through third grade. This measure will provide a snapshot of where students are developmentally as they begin kindergarten, allowing parents and educators to address student deficiencies at an early stage in a child's development. Additionally, it will provide statewide comparable data to help us better assess our programs and implement necessary improvements.

The Ounce intends to support the implementation of the state's RTTT plan by actively participating as a partner in planning around Kindergarten Readiness Assessments, remaining an active training resource, and through my role as an Ex-Officio member of the P-20 Council.

We look forward to continuing our longstanding partnership with the Illinois State Board of Education on the development and implementation of the RTTT

proposed reforms and programs and to the ongoing efforts to ensure the future success of Illinois' children and schools.

Sincerely

(b)(6)

Diana Mendley Rauner, Ph.D.
Executive Director

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top Application for Initial Funding ("RTTT") which you are submitting to the U.S. Department of Education. I, on behalf of the Parents & Residents Invested in School and Education (PRISE) Reform Coalition am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms. The available funds will allow Illinois to continue to develop an educational system that will prepare each and every child in Illinois for postsecondary education and the workforce. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt world class standards and assessments for students, teachers and school leaders by providing teachers and school leaders with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools.

Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers will become a productive citizen in our ever-changing world.

In particular, PRISE Reform Coalition intends to support the implementation of the following components of the State's RTTT plan: increasing parent and community engagement and social support for the most challenged low-performing schools.

We look forward to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

Patricia Watkins

Patricia Watkins, Ph.D.
Convener

161 N. Clark Street, Suite 4700, Chicago, IL 60601
Ph: 312.587.7426 Fax: 877.594.7426
www.ricoenterprises.com

January 8, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express strong support for the comprehensive education reforms outlined in the State of Illinois' Race to the Top ("RTTT") application.

As president of Rico Enterprises I have served in many volunteer roles involving education improvement efforts in Illinois for more than two decades. Most recently, you appointed me to the new Illinois P-20 Council. I am currently serving as Chair of the Illinois Workforce Investment Board's IT Workforce Task Force. I chair the Chicagoland Chamber of Commerce's Technology 2020 Committee.

From the findings and recommendations of the IT Workforce Task Force and interests of the Technology 2020 Committee members, I can definitely assure that we have companies ready to be active in STEM Learning Exchange IT activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students.

Illinois' newly constituted P-20 Council will guide future state efforts to build the seamless education and workforce development system, using enhanced tools such as the longitudinal data system. Funding of the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application is essential for meaningful improvement to occur swiftly.

I look forward to working with the State of Illinois and other stakeholders to implement the programs outlined in Illinois' Race to the Top application.

Sincerely

(b)(6)

John Rico, Sr.
President & CEO
Rico Computers Enterprises, Inc.

SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE
SCHOOL OF EDUCATION

January 15, 2009

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I am writing to express support for the Race to the Top (RTTT) Application for Initial Funding which you are submitting to the U.S. Department of Education. On behalf of Southern Illinois University Edwardsville (SIUE) and the School of Education (SOE), I am excited about the opportunity the federal RTTT grant provides to move the State of Illinois forward on ground-breaking, transformative education reforms.

The available funds will allow Illinois to build upon its past initiatives in P-20 education to continue to develop an educational system that will prepare each child in Illinois for postsecondary education and the workforce. Illinois' RTTT proposal supports our belief that every student, if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers, will become a productive citizen who will make profound and positive contributions to the region, state, and global community. In addition, RTTT funds will assist Illinois in addressing the problems that continue to plague persistently low-achieving schools and districts.

The RTTT proposal supports the Illinois education reform agenda by ensuring that we adopt rigorous standards and assessments for students, teachers and school leaders by providing educators with access to the necessary data and tools to improve student outcomes and to turnaround our most challenged schools. This will be accomplished through the state's focus on RTTT's four critical reform areas: effective teachers and leaders, data systems to support instruction, strong standards and assessments, and systemic support for struggling schools. SIUE shares the state's commitment to the successful implementation of these critical reforms.

SIUE has demonstrated its commitment to current educational reforms in Illinois through the participation of its faculty and administrators in several critical initiatives that relate to RTTT's reform agenda. For example, the School of Education (SOE) has been actively involved in recent efforts to reform and redesign administrator preparation, has developed successful pathways for certification for non-traditional students in critical needs areas such as Early Childhood Education and Secondary Education that insure that students have access to fully certified teachers, and participates with other public institutions to collect and disseminate data related to graduate satisfaction and success in the classroom through annual surveys of novices and their supervisors. The SOE strongly supports the revisions being proposed of the Illinois Teaching Standards and efforts to strengthen content knowledge for secondary endorsements. In addition, as the SOE's Dean I have served on the state's Leadership to Integrate the Learning Continuum (LINC) Advisory Committee, Illinois New Teacher Collaborative (INTC)

Partnership Board, Associate of Arts in Teaching Steering Committee, and the Charter School Authorizer Task Force, all of which support initiatives being proposed under RTTT. The SOE is firmly committed to excellence in educator preparation, welcomes the opportunity for programmatic review that is transparent and methodologically sound, and anticipates the opportunity to be an active participant in the groundbreaking work proposed through Illinois' RTTT proposal.

SIUE and the School of Education also anticipate supporting the implementation of RTTT's initiatives through the University's newly formed STEM Center, which will coordinate the various STEM-related activities across campus in order to strengthen impact on P-12 outreach and related research. Through its STEM Center, SIUE and the SOE anticipate participating in the state's proposed "STEM Learning Exchange," which will expand access to STEM opportunities and support the development of effective STEM-related programs for P-12 students and teachers. Application areas that are specifically reflective of expertise at SIUE would include Energy, Manufacturing, Information Technology, Research and Development, and the Health Sciences. Through its participation in the STEM Learning Exchange and other related RTTT activities, including the STEM Educator Support Programs and STEM externships, SIUE's STEM Center anticipates working collaboratively with entities across Illinois to strengthen teachers' knowledge and effectiveness in the critical areas of mathematics and science to insure success of Illinois' P-12 students.

In collaboration with the East St. Louis School District, SIUE currently holds a charter for a high school that serves adolescents who are at risk. SIUE and the SOE support the reform initiatives outlined in the state's RTTT proposal to build upon the charter school's successes in graduation rate, post-secondary placement, and attendance to strengthen students' academic achievements. Identified as one of the state's "high priority" schools, this charter school anticipates participation in the proposed Illinois Partnership Zone and systemic reform proposals. This spring, administrators from the charter school, SIUE, the SOE, and the East St. Louis School District are already meeting to begin the process of planning for the future, including performing a comprehensive internal evaluation, to insure that students at this school will have access to exemplary teachers, school leaders, and instruction.

As a campus community and regional leader, SIUE and its School of Education are committed to the reform efforts proposed under the state's RTTT proposal and its focus on excellent teachers, assessments, and instruction. We look forward to building upon our record of collaborative work with the state through our continued commitment to partnering with the Illinois State Board of Education on the development and implementation of the RTTT proposed reforms and programs.

Sincerely,

Bette S. Bergeron

Bette S. Bergeron, Ph.D.
Dean

Takeda

January 11, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

The emphasis on high school reform and focus on improving transitions into both college and careers will ensure the development of a well-educated workforce ready for a modern global economy. The State has identified an important and effective high school reform initiative in its RTTT application, including the establishment of a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

As chair of the iBIO Institute, whose mission is to provide education, training and research in biotechnology to the business, educational communities and general public, and through Takeda's backing of the Institute's activities, we look to also support the State's NCRC and STEM-related Programs.

I look forward to working with the State of Illinois and other stakeholders on the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,

(b)(6)

Nancy Joseph Ridge, M.D.
General Manager
Pharmaceutical Development Division
Takeda Pharmaceuticals International
Chair, iBIO Institute Board of Directors

TAKEDA GLOBAL RESEARCH & DEVELOPMENT CENTER
One Takeda Parkway Deerfield, Illinois 60015 Phone: 224-554-6500

TechAmerica
WHERE THE FUTURE BEGINS
THE ASSOCIATION OF COMPANIES DRIVING INNOVATION WORLDWIDE

January 8, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street, Suite 16-100
Chicago, Illinois 60601

Re: Letter of Support for State of Illinois Race to the Top Application

Dear Governor Quinn,

I am writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. I believe that RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

I support the strong emphasis on high school reform and the focus on improving transitions into both college and careers—ensuring the development of a well-educated workforce ready for a modern global economy. I believe the State has identified important and effective high school reform initiatives in its RTTT application including establishing a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

The NCRC will be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

I am committed to partnering with the State to implement the NCRC program and STEM-related Programs of Study throughout the state.

I am willing to serve as a partner with the State in the planning and implementation of STEM Learning Exchanges in the areas of research & development and information technology. I am committed to supporting STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students.

I look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application. Please keep me informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,

(b)(6)

Ed Longanecker
Executive Director
TechAmerica Midwest
630-282-4332 / ed.longanecker@techamerica.org
AeA and ITAA have merged to form TechAmerica

TOOLING & MANUFACTURING ASSOCIATION
1177 S. Dee Road Park Ridge IL 60068
847.825.1120 847.825.0041 FAX
www.tmanet.com

January 11, 2010

Governor Pat Quinn
Office of the Governor
James R. Thompson Center
100 W. Randolph Street
Suite 16-100
Chicago IL 60601

Re: Letter of Support for The State of Illinois "Race to the Top" Application

Dear Governor Quinn:

I am writing to express strong support for the comprehensive reforms outlined in the State of Illinois' Race to the Top (RTTT) application. We believe RTTT presents an unparalleled opportunity for Illinois to dramatically improve student performance and outcomes and serve as a leader in preparing students in science, technology, engineering, and mathematics (STEM) disciplines.

We support the strong emphasis on high school reform and the focus on improving transitions into both college and careers – ensuring the development of a well-educated workforce, ready for a modern global economy. We believe the State has identified important and effective high school reform initiatives in its RTTT application, including establishing a statewide program for the National Career Readiness Certificate (NCRC) and developing and scaling STEM-related Programs of Study.

The NCRC will be an important career readiness credential relevant to a wide range of careers. The STEM-related Programs of Study offer a promising approach for high school reform that will enable students to make real-world connections with their academic and career interests. STEM Learning Exchanges are critical to the success of STEM-related programs of study because they will bring together the resources and expertise of a wide range of business and industry, education and government partners.

We are committed to partnering with the State to implement the NCRC program and STEM-related Programs of Study throughout the state, and TMA currently offers NCRC certification.

OFFICERS

Chairperson
Carol Ebel
Janler Corporation

Vice Chairperson
Tim Merrigan
Chucking Machine Products, Inc.

Treasurer
Paul Ziegenhorn
Matrix Tooling, Inc.

Brian P. McGuire
President

DIRECTORS

Todd Beauchamp
ASK Products, Inc.

Karl Dahlstrom
Numerical Precision, Inc.

Sandra Westlund-Deenihan
Quality Float Works, Inc.

David Hahn
Simplomatic Manufacturing Company

Steven Kase
ASK Products, Inc.

Stuart Kriegermeier, Sr.
American Engraving, Inc.

Linda Reilly Murphy
Metalloy Company

Brian Panek
Panek Precision

Richard Nielsen
IMS Buhrke-Olson

Raymond Wiltgen
Northwestern Precision Manufacturing
(Past Chairperson)

Illinois' Premier Full Service Manufacturing Association

TOOLING & MANUFACTURING ASSOCIATION
1177 S. Dee Road Park Ridge IL 60068
847.825.1120 847.825.0041 FAX
www.tmanet.com

We are willing to serve as a partner with the State in the planning and implementation of STEM Learning Exchanges for 1) manufacturing and 2) transportation, distribution and logistics. We are committed to supporting STEM Learning Exchange activities including the development of e-learning curriculum resources, professional development programs for teachers, and expanding internships and career development opportunities for students.

We look forward to working with the State of Illinois and other stakeholders to implement the initiatives outlined in Illinois' Race to the Top application. Please keep us informed of RTTT progress and any opportunities to assist in implementation of the RTTT plan.

Sincerely,

(b)(6)

Brian P. McGuire
President

BPM/crc

OFFICERS

Chairperson
Carol Ebel
Janler Corporation

Vice Chairperson
Tim Merrigan
Chucking Machine Products, Inc.

Treasurer
Paul Ziegenhorn
Matrix Tooling, Inc.

Brian P. McGuire
President

DIRECTORS

Todd Beauchamp
ASK Products, Inc.

Karl Dahlstrom
Numerical Precision, Inc.

Sandra Westlund-Deenihan
Quality Float Works, Inc.

David Hahn
Simplomatic Manufacturing Company

Steven Kase
ASK Products, Inc.

Stuart Kriegermeier, Sr.
American Engraving, Inc.

Linda Reilly Murphy
Metalloy Company

Brian Panek
Panek Precision

Richard Nielsen
IMS Buhrke-Olson

Raymond Wiltgen
Northwestern Precision Manufacturing
(Past Chairperson)

Illinois' Premier Full Service Manufacturing Association

January 15, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 N. 1st Street, S-405
Springfield, Illinois 62777

Dear Dr. Koch:

I write to support the Race to the Top Application for Initial Funding you are submitting to the U.S. Department of Education. Voices for Illinois Children is excited about the opportunity this grant provides to move Illinois forward on innovative education reforms. RTTT funding would allow our state to better-develop an educational system that prepares every Illinois child for success in school, the workforce and throughout their lives. In addition, the funds would help our state address many problems that trouble persistently low-achieving schools and districts.

The RTTT proposal supports Illinois' education-reform agenda by ensuring we adopt world-class standards and assessments for students, teachers and school leaders. We can do this by providing teachers and school leaders with access to the data and tools that are necessary to improve student outcomes and to turn around our most challenged schools.

Illinois' RTTT proposal supports our belief that every student – if provided with the knowledge, skills, abilities and attitudes to succeed in postsecondary education and careers – will become a productive citizen in our ever-changing world.

In particular, Voices for Illinois Children intends to support the state's RTTT plan by:

- Service on Illinois' P-20 Council;
- Advocating for the full development and best use of both Kindergarten-readiness measures and longitudinal, P-20 data-sharing processes in Illinois, as well as their proper monitoring;
- Pressing for additional local, state and federal funding to support RTTT priorities; and
- Building public awareness of and support for RTTT, its goals – and what it takes to reach them.

We look forward to working with the Illinois State Board of Education on RTTT-related reforms and efforts to improve children's learning, throughout our state.

Sincerely,

(b)(6)

Kathy Ryg, President

Appendix B1-1

Common Core State Standards Initiative Consortium Participants

1. Alabama
2. Arizona
3. Arkansas
4. California
5. Colorado
6. Connecticut
7. Delaware
8. District of Columbia
9. Florida
10. Georgia
11. Hawaii
12. Idaho
13. Illinois
14. Indiana
15. Iowa
16. Kansas
17. Kentucky
18. Louisiana
19. Maine
20. Maryland
21. Massachusetts
22. Michigan
23. Minnesota
24. Mississippi
25. Missouri
26. Montana
27. Nebraska
28. Nevada
29. New Hampshire
30. New Jersey
31. New Mexico
32. New York
33. North Carolina
34. North Dakota
35. Ohio
36. Oklahoma
37. Oregon
38. Pennsylvania
39. Puerto Rico
40. Rhode Island
41. South Carolina
42. South Dakota
43. Tennessee
44. Utah
45. Vermont
46. Virgin Islands
47. Virginia
48. Washington
49. West Virginia
50. Wisconsin
51. Wyoming

Appendix B1-2

Memorandum of Agreement

The Council of Chief State School Officers and
The National Governors Association Center for Best Practices

Common Core Standards
Memorandum of Agreement

Purpose. This document commits states to a state-led process that will draw on evidence and lead to development and adoption of a common core of state standards (common core) in English language arts and mathematics for grades K-12. These standards will be aligned with college and work expectations, include rigorous content and skills, and be internationally benchmarked. The intent is that these standards will be aligned to state assessment and classroom practice. The second phase of this initiative will be the development of common assessments aligned to the core standards developed through this process.

Background. Our state education leaders are committed to ensuring all students graduate from high school ready for college, work, and success in the global economy and society. State standards provide a key foundation to drive this reform. Today, however, state standards differ significantly in terms of the incremental content and skills expected of students.

Over the last several years, many individual states have made great strides in developing high-quality standards and assessments. These efforts provide a strong foundation for further action. For example, a majority of states (35) have joined the American Diploma Project (ADP) and have worked individually to align their state standards with college and work expectations. Of the 15 states that have completed this work, studies show significant similarities in core standards across the states. States also have made progress through initiatives to upgrade standards and assessments, for example, the New England Common Assessment Program.

Benefits to States. The time is right for a state-led, nation-wide effort to establish a common core of standards that raises the bar for all students. This initiative presents a significant opportunity to accelerate and drive education reform toward the goal of ensuring that all children graduate from high school ready for college, work, and competing in the global economy and society. With the adoption of this common core, participating states will be able to:

- Articulate to parents, teachers, and the general public expectations for students;
- Align textbooks, digital media, and curricula to the internationally benchmarked standards;
- Ensure professional development to educators is based on identified need and best practices;
- Develop and implement an assessment system to measure student performance against the common core; and
- Evaluate policy changes needed to help students and educators meet the common core standards and "end-of-high-school" expectations.

An important tenet of this work will be to increase the rigor and relevance of state standards across all participating states; therefore, no state will see a decrease in the level of student expectations that exist in their current state standards.

Process and Structure

- **Common Core State-Based Leadership.** The Council of Chief State School Officers (CCSSO) and the National Governors Association Center for Best Practices (NGA Center) shall assume responsibility for coordinating the process that will lead to state adoption of a common core set of standards. These organizations represent governors and state commissioners of education who are charged with defining K-12 expectations at the state level. As such, these organizations will

facilitate a state-led process to develop a set of common core standards in English language arts and math that are:

- Fewer, clearer, and higher, to best drive effective policy and practice;
- Aligned with college and work expectations, so that all students are prepared for success upon graduating from high school;
- Inclusive of rigorous content and application of knowledge through high-order skills, so that all students are prepared for the 21st century;
- Internationally benchmarked, so that all students are prepared for succeeding in our global economy and society; and
- Research and evidence-based.

- **National Validation Committee.** CCSSO and the NGA Center will create an expert validation group that will serve 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:	Pat Quinn
Chief State School Officer:	Christopher A. Koch

Appendix B1-3

Common Core Standards

Core Standards for Reading, Writing, and Speaking and Listening

The Core Standards identify essential college- and career-ready skills and knowledge in reading, writing, and speaking and listening across the disciplines. While the English language arts classroom has often been seen as the proper site for literacy instruction, this document acknowledges that the responsibility for teaching such skills must also extend to the other content areas. Teachers in the social and natural sciences, the humanities, and mathematics need to use their content-area expertise to help students acquire the discipline-specific skills necessary to comprehend challenging texts and develop deep knowledge in those fields. At the same time, English language arts teachers not only must engage their students in a rich array of literature but also must help develop their students' ability to read complex works of nonfiction independently.

What is taught is just as important as how it is taught; the Core Standards should be accompanied by a comprehensive, content-rich curriculum. While this document defines the outcomes all students need to reach to be college and career ready, many important decisions about curriculum will necessarily be left to states, districts, schools, teachers, professional organizations, and parents. For example, while the standards require that students read texts of sufficient complexity, quality, and range, this document does not contain a required reading list. If states and districts choose to develop one, they should look at the Reading Exemplars provided here to get a sense of the level of complexity students must be able to handle independently when they read. Educators can also model their efforts on reading lists from around the nation and the world as long as the texts ultimately included meet the range and content standards in this document.

Standards today must ready students for competition and collaboration in a global, media-saturated environment. Colleges and universities have become international meetinghouses where people from across the globe learn with and from one another. At the same time, business today is truly a worldwide enterprise. Media-related technology helps shape what goes on in both college and the workplace; indeed, it has in some important ways reshaped the very nature of communication. Students who meet the Core Standards will have the reading, writing, speaking, and listening skills to flourish in the diverse, rapidly changing environments of college and careers.

Although reading, writing, and speaking and listening are articulated separately in the standards that follow, these divisions are made for the sake of clarity and manageability. In reality, the processes of communication are tightly interrelated and often reciprocal. The act of reading can no more be separated from the written word than the act of listening can be from the spoken word. When reading, students demonstrate their comprehension most commonly through a spoken or written interpretation of the text. As students solve problems, share insights, and build the

knowledge they need for college and career success, they draw simultaneously on their capacities to read, write, speak, and listen.

Student Practices in Reading, Writing, and Speaking and Listening

The following practices in reading, writing, and speaking and listening undergird and help unify the rest of the standards document. They are the "premises"—broad statements about the nature of college and career readiness in reading, writing, and speaking and listening—that underlie the individual standards statements and cut across the various sections of the document. Every idea introduced here is subsequently represented in one or more places within the larger document.

* * *

Students who are college and career ready exhibit the following capacities in their reading, writing, and speaking and listening:

1. *They demonstrate independence as readers, writers, speakers, and listeners.*

   Students can, without significant scaffolding or support, comprehend and evaluate complex text across a range of types and disciplines, and they can construct effective arguments and clearly convey intricate or multifaceted information. Likewise, students are independently able to discern a speaker's key points as well as ask questions and articulate their own ideas.

2. *They build strong content knowledge.*

   Students build a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They demonstrate their ability to become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and the specific in-depth expertise needed to comprehend subject matter and solve problems in different fields. They refine their knowledge and share it through substantive writing and speaking.

3. *They respond to the varying demands of audience, task, purpose, and discipline.*

   Students consider their reading, writing, and speaking and listening in relation to the contextual factors of audience, task, purpose, and discipline. They appreciate nuances, such as how the composition and familiarity of the audience should affect tone. They also know that different disciplines call for different types of evidence (e.g., documentary evidence in history, experimental evidence in the natural sciences).

4. *They comprehend as well as critique.*

   Students are engaged and open-minded—but skeptical—readers and listeners. They work diligently to understand precisely what an author or speaker is saying, but they also question an author's or speaker's assumptions and assess the veracity of claims.

5. *They privilege evidence.*

   Students cite specific textual evidence when offering an oral or written interpretation of a piece of writing. They use relevant evidence when supporting their own points in writing and speaking, making their reasoning clear to the reader or listener, and they constructively evaluate others' use of evidence.

6. *They care about precision.*

   Students are mindful of the impact of specific words and details, and they consider what would be achieved by different choices. Students pay especially close attention when precision matters most, such as in the case of reviewing significant data, making important distinctions, or analyzing a key moment in the action of a play or novel.

7. *They craft and look for structure.*

   Students attend to structure when organizing their own writing and speaking as well as when seeking to understand the work of others. They understand and make use of the ways of presenting information typical of different disciplines. They observe, for example, how authors of literary works craft the structure to unfold events and depict the setting.

8. *They use technology strategically and capably.*

   Students employ technology thoughtfully to enhance their reading, writing, speaking, and listening. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

Introductory Evidence Statement for Reading, Writing, Speaking and Listening Standards

To develop college- and career-ready standards for Reading, Writing, and Speaking and Listening that are rigorous, relevant, and internationally benchmarked, the work group consulted evidence from a wide array of sources. These included standards documents from high-performing states and nations; student performance data (including assessment scores and college grades); academic research; frameworks for assessments, such as NAEP; and results of surveys of postsecondary instructors and employers regarding what is most important for college and career readiness.

The evidence strongly suggests that similar reading, writing, speaking, and listening skills are necessary for success in both college and the workplace. A review of the standards of high-performing nations also suggests that many of these skills are already required in secondary schools internationally. The work group has endeavored to articulate these skills in the Core Standards, focusing educators, students, parents, and resources on what matters most.

Given that a set of standards cannot be simplistically "derived" from any body of evidence, the work group sometimes relied on reasoned judgment to interpret where the evidence was most compelling. For example, there is not a consensus among college faculty about the need for incoming students to be able to comprehend graphs, charts, and tables and to integrate information in these data displays with the information in the accompanying text. Although some evidence suggests that this skill is critical in the workplace and in some entry-level courses, college faculties from the various disciplines disagree on its value (with science and economics faculty rating it more highly than English and humanities professors do). The work group ultimately included a standard on the integration of text and data because the preponderance of the evidence suggests the skill's importance in meeting the demands of the twenty-first-century workplace and some college classrooms.

In most cases, the evidence is clearer. In writing, for example, there is unequivocal value placed on the logical progression of ideas. The expectation that high school graduates will be able to produce writing that is logical and coherent is found throughout the standards of top-performing countries and states. This ability is also valued highly by college faculty and employers. In response to such clear evidence, the work group included Writing student performance standard #5: "Create a logical progression of ideas or events and convey the relationships among them."

A bibliography of some of the sources we drew upon most is included at the end of this document. We also refer the reader to the Core Standards Web site (http://www.corestandards.org), which contains a similar bibliography (with links

to full documents where available) as well as lists of standards linked to relevant sources of evidence.

Finally, while the standards reflect the best evidence available to date, the decisions the work group made are necessarily provisional. The core should be reexamined periodically as additional research on college and career readiness emerges. Indeed, this document may serve as an agenda for such research.

How to Read the Document

This document is divided into three main sections: strands, applications, and supporting materials.

Strands

There are three *strands*: Reading, Writing, and Speaking and Listening. Although each strand is presented discretely for ease of understanding, the document should be considered a coherent whole.

The three strands are each in turn divided into two sections: S*tandards for Range and Content* and S*tandards for Student Performance*.

Standards for Range and Content

The Standards for Range and Content in each strand describe the contexts in which college- and career-ready students must be able to read, write, speak, and listen. Rather than merely supplement or illustrate the numbered list of Standards for Student Performance, the Standards for Range and Content are themselves required and carry equal force.

Standards for Student Performance

The Standards for Student Performance in each strand enumerate the essential skills and understandings that students who are college and career ready in reading, writing, and speaking and listening must have no later than the end of high school.

Applications

The clearest examples of the integrated nature of communication are the *Applications of the Core* for Research and Media. The Core Standards for Reading, Writing, and Speaking and Listening have been designed to include the essential skills and knowledge that students need to apply to college and career tasks, such as research and media. Rather than having an additional set of standards that would largely duplicate those already in Reading, Writing, and Speaking and Listening, the document includes the Research and Media applications that draw upon standards already in those strands. This both reaffirms the centrality of the core processes of reading, writing, speaking, and listening and shows how those processes can be combined and extended to describe key communicative acts in the classroom and workplace.

In the Research and Media applications, specific Reading, Writing, and Speaking and Listening standards are identified with a letter corresponding to the relevant strand (R for Reading, W for Writing, and S&L for Speaking and Listening) and a number or letter corresponding to the statement within that strand. For example, R-14 refers to the fourteenth statement in the Standards for Student Performance in Reading,

and W-A refers to the first statement of the Standards for Range and Content in Writing.

College and Career Readiness Standards for Reading, Writing, and Speaking and Listening

Draft for Review and Comment

September 21, 2009

College and Career Readiness Standards for Reading, Writing, and Speaking and Listening

Table of Contents

Introduction
- Core Standards for Reading, Writing, and Speaking and Listening i
- Student Practices in Reading, Writing, and Speaking and Listening iii
- Introductory Evidence Statement for Reading, Writing, and Speaking and Listening Standards v
- How to Read the Document vii

Core Standards for Reading Informational and Literary Texts
- Standards for the Range and Content of Student Reading 1-A
- Standards for Student Performance 1-B

Core Standards for Writing
- Standards for the Range and Content of Student Writing 2-A
- Standards for Student Performance 2-B

Core Standards for Speaking and Listening
- Standards for the Range and Content of Student Speaking and Listening 3-A
- Standards for Student Performance 3-B

Applications of the Core
- Application of the Core: Research 4-A
- Application of the Core: Media 4-B

Illustrative Texts: Exemplars of Reading Text Complexity
- Introduction 5
- Illustrative Texts with Annotations 6

~~Illustrative Student Writing Samples~~ - Coming in next draft
- ~~Introduction~~
- ~~Student Writing Samples with Annotations~~

Sample of Works Consulted 31

Core Standards for Reading, Writing, and Speaking and Listening

The Core Standards identify essential college- and career-ready skills and knowledge in reading, writing, and speaking and listening across the disciplines. While the English language arts classroom has often been seen as the proper site for literacy instruction, this document acknowledges that the responsibility for teaching such skills must also extend to the other content areas. Teachers in the social and natural sciences, the humanities, and mathematics need to use their content area expertise to help students acquire the discipline-specific skills necessary to comprehend challenging texts and develop deep knowledge in those fields. At the same time, English language arts teachers not only must engage their students in a rich array of literature but also must help develop their students' ability to read complex works of nonfiction independently.

What is taught is just as important as how it is taught; the Core Standards should be accompanied by a comprehensive, content-rich curriculum. While this document defines the outcomes all students need to reach to be college and career ready, many important decisions about curriculum will necessarily be left to states, districts, schools, teachers, professional organizations, and parents. For example, while the standards require that students read texts of sufficient complexity, quality, and range, this document does not contain a required reading list. If states and districts choose to develop one, they should look at the Reading exemplars provided here to get a sense of the level of complexity students must be able to handle independently when they read. Educators can also model their efforts on reading lists from around the nation and the world as long as the texts ultimately included meet the range and content standards in this document.

Standards today must ready students for competition and collaboration in a global, media-saturated environment. Colleges and universities have become international meetinghouses where people from across the globe learn with and from one another. At the same time, business today is truly a worldwide enterprise. Media-related technology helps shape what goes on in both college and the workplace; indeed, it has in some important ways reshaped the very nature of communication. Students who meet the Core Standards will have the reading, writing, speaking, and listening skills to flourish in the diverse, rapidly changing environments of college and careers.

Although reading, writing, and speaking and listening are articulated separately in the standards that follow, these divisions are made for the sake of clarity and manageability. In reality, the processes of communication are tightly interrelated and often reciprocal. The act of reading can no more be separated from the written word than the act of listening can be from the spoken word. When reading, students demonstrate their comprehension most commonly through a spoken or written interpretation of the text. As students solve problems, share insights, and build the

knowledge they need for college and career success, they draw simultaneously on their capacities to read, write, speak, and listen.

Student Practices in Reading, Writing, and Speaking and Listening

The following practices in reading, writing, and speaking and listening undergird and help unify the rest of the standards document. They are the "premises"—broad statements about the nature of college and career readiness in reading, writing, and speaking and listening—that underlie the individual standards statements and cut across the various sections of the document. Every idea introduced here is subsequently represented in one or more places within the larger document.

* * *

Students who are college and career ready exhibit the following capacities in their reading, writing, and speaking and listening:

1. *They demonstrate independence as readers, writers, speakers, and listeners.*

   Students can, without significant scaffolding or support, comprehend and evaluate complex text across a range of types and disciplines, and they can construct effective arguments and clearly convey intricate or multifaceted information. Likewise, students are independently able to discern a speaker's key points as well as ask questions and articulate their own ideas.

2. *They build strong content knowledge.*

   Students build a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They demonstrate their ability to become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and the specific in-depth expertise needed to comprehend subject matter and solve problems in different fields. They refine their knowledge and share it through substantive writing and speaking.

3. *They respond to the varying demands of audience, task, purpose, and discipline.*

   Students consider their reading, writing, and speaking and listening in relation to the contextual factors of audience, task, purpose, and discipline. They appreciate nuances, such as how the composition and familiarity of the audience should affect tone. They also know that different disciplines call for different types of evidence (e.g., documentary evidence in history, experimental evidence in the natural sciences).

4. *They comprehend as well as critique.*

   Students are engaged and open-minded—but skeptical—readers and listeners. They work diligently to understand precisely what an author or speaker is

saying, but they also question an author's or speaker's assumptions and assess the veracity of claims.

5. *They privilege evidence.*

   Students cite specific textual evidence when offering an oral or written interpretation of a piece of writing. They use relevant evidence when supporting their own points in writing and speaking, making their reasoning clear to the reader or listener, and they constructively evaluate others' use of evidence.

6. *They care about precision.*

   Students are mindful of the impact of specific words and details, and they consider what would be achieved by different choices. Students pay especially close attention when precision matters most, such as in the case of reviewing significant data, making important distinctions, or analyzing a key moment in the action of a play or novel.

7. *They craft and look for structure.*

   Students attend to structure when organizing their own writing and speaking as well as when seeking to understand the work of others. They understand and make use of the ways of presenting information typical of different disciplines. They observe, for example, how authors of literary works craft the structure to unfold events and depict the setting.

8. *They use technology strategically and capably.*

   Students employ technology thoughtfully to enhance their reading, writing, speaking, and listening. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

Introductory Evidence Statement for Reading, Writing, and Speaking and Listening Standards

To develop college- and career-ready standards for Reading, Writing, and Speaking and Listening that are rigorous, relevant, and internationally benchmarked, the work group consulted evidence from a wide array of sources. These included standards documents from high-performing states and nations; student performance data (including assessment scores and college grades); academic research; frameworks for assessments, such as NAEP; and results of surveys of postsecondary instructors and employers regarding what is most important for college and career readiness.

The evidence strongly suggests that similar reading, writing, speaking, and listening skills are necessary for success in both college and the workplace. A review of the standards of high-performing nations also suggests that many of these skills are already required in secondary schools internationally. The work group has endeavored to articulate these skills in the Core Standards, focusing educators, students, parents, and resources on what matters most.

Given that a set of standards cannot be simplistically "derived" from any body of evidence, the work group sometimes relied on reasoned judgment to interpret where the evidence was most compelling. For example, there is not a consensus among college faculty about the need for incoming students to be able to comprehend graphs, charts, and tables and to integrate information in these data displays with the information in the accompanying text. Although some evidence suggests that this skill is critical in the workplace and in some entry-level courses, college faculties from the various disciplines disagree on its value (with science and economics faculty rating it more highly than English and humanities professors do). The work group ultimately included a standard on the integration of text and data because the preponderance of the evidence suggests the skill's importance in meeting the demands of the twenty-first-century workplace and some college classrooms.

In most cases, the evidence is clearer. In writing, for example, there is unequivocal value placed on the logical progression of ideas. The expectation that high school graduates will be able to produce writing that is logical and coherent is found throughout the standards of top-performing countries and states. This ability is also valued highly by college faculty and employers. In response to such clear evidence, the work group included Writing student performance standard #5: "Create a logical progression of ideas or events, and convey the relationships among them."

A bibliography of some of the sources the work group drew upon most is included at the end of this document. The reader should also refer to the Core Standards Web site (http://www.corestandards.org), which contains a list of standards linked to relevant sources of evidence.

Finally, while the standards reflect the best evidence available to date, the decisions the work group made are necessarily provisional. The core should be reexamined periodically as additional research on college and career readiness emerges. Indeed, this document may serve as an agenda for such research.

How to Read the Document

This document is divided into three main sections: strands, applications, and supporting materials.

Strands

There are three *strands*: Reading, Writing, and Speaking and Listening. Although each strand is presented discretely for ease of understanding, the document should be considered a coherent whole.

The three strands are each in turn divided into two sections: S*tandards for Range and Content* and S*tandards for Student Performance*.

Standards for Range and Content

The Standards for Range and Content in each strand describe the contexts in which college- and career-ready students must be able to read, write, speak, and listen. Rather than merely supplement or illustrate the numbered list of Standards for Student Performance, the Standards for Range and Content are themselves required and carry equal force.

Standards for Student Performance

The Standards for Student Performance in each strand enumerate the essential skills and understandings that students who are college and career ready in reading, writing, speaking, and listening must have no later than the end of high school.

Applications

The clearest examples of the integrated nature of communication are the *Applications of the Core* for Research and Media. The Core Standards for Reading, Writing, and Speaking and Listening have been designed to include the essential skills and knowledge that students need to apply to college and career tasks, such as research and media. Rather than having an additional set of standards that would largely duplicate those already in Reading, Writing, and Speaking and Listening, the document includes the Research and Media applications that draw upon standards already in those strands. This both reaffirms the centrality of the core processes of reading, writing, speaking, and listening and shows how those processes can be combined and extended to describe key communicative acts in the classroom and workplace.

In the Research and Media applications, specific Reading, Writing, and Speaking and Listening standards are identified with a letter or letters corresponding to the relevant strand (R for Reading, W for Writing, and S&L for Speaking and Listening) and a number or letter corresponding to the statement within that strand. For example, R-14 refers to the fourteenth statement in the Standards for Student

Performance in Reading, and W-A refers to the first statement of the Standards for Range and Content in Writing.

Supporting Materials: Reading and Writing Exemplars
Reading and Writing exemplars, and their accompanying annotations, are used to lend further specificity to the standards.

Reading Exemplars
The Reading exemplars, representing a range of subject areas, time periods, cultures, and formats, illustrate the level of text complexity students ready for college and careers must be able to handle on their own. The exemplars are mostly excerpts or representations of larger works. To be truly college and career ready, students must be able to handle full texts—poems, short stories, novels, technical manuals, research reports, and the like. Annotations accompanying the exemplars explain how each text meets the criterion of high text complexity. The annotations also provide brief performance examples that further clarify the meaning and application of the standards.

~~Writing Exemplars~~ - Coming in the next draft
~~The Writing exemplars are authentic samples of student writing created across the nation under a variety of conditions and for a variety of purposes and audiences. Annotations accompanying the exemplars indicate how these samples meet the Standards for Student Performance in Writing.~~

Core Standards for Reading Informational and Literary Texts

Standards for the Range and Content of Student Reading

A. **Complexity:** A crucial factor in readiness for college and careers is students' ability to comprehend complex texts independently. In college and careers, students will need to read texts characterized by demanding vocabulary, subtle relationships among ideas or characters, a nuanced rhetorical style and tone, and elaborate structures or formats. These challenging texts require the reader's close attention and often demand rereading in order to be fully understood.

B. **Quality:** The literary and informational texts chosen for study should be rich in content and in a variety of disciplines. All students should have access to and grapple with works of exceptional craft and thought both for the insights those works offer and as models for students' own thinking and writing. These texts should include classic works that have broad resonance and are alluded to and quoted often, such as influential political documents, foundational literary works, and seminal historical and scientific texts. Texts should also be selected from among the best contemporary fiction and nonfiction and from a diverse range of authors and perspectives.

C. **Vocabulary:** To be college and career ready, students must encounter and master a rich vocabulary. Complex texts often use challenging words, phrases, and terms that students typically do not encounter in their daily lives. Specific disciplines and careers have vocabularies of their own. Attentive reading of sophisticated works in a wide range of fields, combined with close attention to vocabulary, is essential to building comprehension and knowledge.

D. **Range:** Students must be able to read a variety of literature, informational texts, and multimedia sources in order to gain the knowledge base they need for college and career readiness.

> ***Literature:*** Literature enables students to access through imagination a wide range of experiences. By immersing themselves in literature, students enlarge their experiences and deepen their understanding of their own and other cultures. Careful reading of literature entails attentiveness to craft and details of design, which has broad value for students' work in college and career environments.
>
> ***Informational Text:*** Because most college and workplace reading is nonfiction, students need to hone their ability to acquire knowledge from informational texts. Workplace and discipline-specific reading will often require students to demonstrate persistence as they encounter a large amount of unfamiliar and often technical vocabulary and concepts. Students must demonstrate facility with the features of texts particular to a variety of disciplines, such as history, science, and mathematics.
>
> ***Multimedia Sources:*** Students must be able to integrate what they learn from reading text with what they learn from audio, video, and other digital media. Many of the same critical issues that students face when reading traditional printed texts will arise as they seek to comprehend multimedia, such as determining where the author has chosen to focus, evaluating evidence, and comparing different accounts of similar subjects.

E. **Quantity***:* Students must have the capacity to handle independently the quantity of reading material, both in print and online, required in college and workforce training. Studies show that the amount of reading students face in high school is often far lower than that required for typical first-year college courses. Students need to be able to perform a close reading of a much higher volume of texts and to sort efficiently through large amounts of print and online information in search of specific facts or ideas.

Note: *The essential role of independence in college and career readiness:* The significant scaffolding that often accompanies reading in high school usually disappears in college and workforce training environments. Students must therefore have developed their ability to read texts of sufficient complexity, quality, and range on their own. To become independent, students must encounter unfamiliar texts presented without supporting materials.

Core Standards for Reading Informational and Literary Texts

Standards for Student Performance

1. Determine both what the text says explicitly and what can be inferred logically from the text.
2. Support or challenge assertions about the text by citing evidence in the text explicitly and accurately.
3. Discern the most important ideas, events, or information, and summarize them accurately and concisely.
4. Delineate the main ideas or themes in the text and the details that elaborate and support them.
5. Determine when, where, and why events unfold in the text, and explain how they relate to one another.
6. Analyze the traits, motivations, and thoughts of individuals in fiction and nonfiction based on how they are described, what they say and do, and how they interact.
7. Determine what is meant by words and phrases in context, including connotative meanings and figurative language.
8. Analyze how specific word choices shape the meaning and tone of the text.
9. Analyze how the text's organizational structure presents the argument, explanation, or narrative.
10. Analyze how specific details and larger portions of the text contribute to the meaning of the text.
11. Synthesize data, diagrams, maps, and other visual elements with words in the text to further comprehension.
12. Extract key information efficiently in print and online using text features and search techniques.
13. Ascertain the origin, credibility, and accuracy of print and online sources.
14. Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing whether the evidence provided is relevant and sufficient.
15. Analyze how two or more texts with different styles, points of view, or arguments address similar topics or themes.
16. Draw upon relevant prior knowledge to enhance comprehension, and note when the text expands on or challenges that knowledge.
17. Apply knowledge and concepts gained through reading to build a more coherent understanding of a subject, inform reading of additional texts, and solve problems.
18. Demonstrate facility with the specific reading demands of texts drawn from different disciplines, including history, literature, science, and mathematics.

Note: *These Standards for Student Performance, as is the case for every strand, must be demonstrated across the range and content from the preceding page.* They are meant to apply to fiction and nonfiction. For example:

- "Determine when, where, and why events unfold" applies to plot and setting in literature as well as the sequence of a scientific procedure.
- "Analyze the traits, motivations, and thoughts of individuals" applies to studying characters in fiction and figures in historical texts.

Core Standards for Writing

Standards for the Range and Content of Student Writing

A. **Purpose:**

Make an Argument: While many high school students have experience presenting their opinions, they need to be able to make arguments supported by evidence in order to be ready for careers and college. Students must be able to frame the debate over a claim, present the reasoning and evidence for the argument, and acknowledge and address its limitations. In some cases, students will make arguments to gain entry to college or to obtain a job, laying out their qualifications or experience. In college, students might defend an interpretation of a work of literature or of history; in the workplace, employees might write to recommend a course of action.

Inform or Explain: In college and in workforce training, writing is a key means for students to show what they know and to share what they have seen. Writing to inform or explain often requires students to integrate complex information from multiple sources in a lucid fashion. Explanations can take the form of laying out facts about a new technology or documenting findings from historical research; well-crafted explanations often make fresh connections and express ideas creatively.

B. **Audience:** Students must adapt their writing so that it is appropriate to the audience by choosing words, information, structures, and formats that conform to the conventions of the discipline in which they are writing. The form and use of evidence in literary analysis, for example, are likely to be quite different from those in geology or business. Students must also be able to consider their audience's background knowledge and potential objections to an argument.

C. **Situation:**

On-demand Writing: Students must have the flexibility, concentration, and fluency to produce high-quality first-draft text under a tight deadline. College and career readiness requires that students be able to write effectively to a prompt on an exam or respond quickly yet thoughtfully to a supervisor's urgent request for information.

Writing over Time: Students must be able to revisit and make improvements to a piece of their writing over multiple drafts when circumstances encourage or require it. To improve writing through revision, students must be capable of distinguishing good changes from ones that would weaken the writing.

D. **Technology and Collaboration:** Technology offers students powerful tools for producing, editing, and distributing writing as well as for collaboration. Especially in the workplace, writers often use technology to produce documents and to provide feedback.

E. **Quantity:** The evidence is clear that, in order to become better writers, students must devote significant time to producing writing. Students must practice writing several analytical pieces each term if they are to achieve the deep analysis and interpretation of content expected for college and careers.

Note on narrative writing:

Narrative writing is an important mode of writing; it is also a component of making an argument and writing to inform or explain. Telling an interesting story effectively or providing an accurate account of a historical incident requires the skillful use of narrative techniques. Narrative writing requires that students present vivid, relevant details to situate events in a time and place and also craft a structure that lends a larger shape and significance to those details. As an easily grasped and widely used way to share information and ideas with others, narrative writing is a principal stepping-stone to writing forms directly relevant to college and career readiness.

Core Standards for Writing

Standards for Student Performance

1. Establish and refine a topic or thesis that addresses the specific task and audience.
2. Gather the information needed to build an argument, provide an explanation, or address a research question.
3. Sustain focus on a specific topic or argument.
4. Support and illustrate arguments and explanations with relevant details, examples, and evidence.
5. Create a logical progression of ideas or events, and convey the relationships among them.
6. Choose words and phrases to express ideas precisely and concisely.
7. Use varied sentence structures to engage the reader and achieve cohesion between sentences.
8. Develop and maintain a style and tone appropriate to the task, purpose, and audience.
9. Demonstrate command of the conventions of standard written English, including grammar, usage, and mechanics.
10. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.
11. Assess the quality of one's own writing, and, when necessary, strengthen it through revision.
12. Use technology as a tool to produce, edit, and distribute writing.

When **writing to inform or explain**, students must also do the following:

13. Synthesize information from multiple relevant sources, including graphics and quantitative information when appropriate, to provide an accurate picture of that information.
14. Convey complex information clearly and coherently to the audience through purposeful selection and organization of content.
15. Demonstrate understanding of content by reporting facts accurately and anticipating reader misconceptions.

When **writing arguments**, students must also do the following:

16. Establish a substantive claim, distinguishing it from alternate or opposing claims.
17. Link claims and evidence with clear reasons, and ensure that the evidence is relevant and sufficient to support the claims.
18. Acknowledge competing arguments or information, defending or qualifying the initial claim as appropriate.

Note: "The conventions of standard written English" encompass a range of commonly accepted language practices designed to make writing clear and widely understood. When formal writing contains errors in grammar, usage, and mechanics, its meaning is obscured, its message is too easily dismissed, and its author is often judged negatively. Proper sentence structure, correct verb formation, careful use of verb tense, clear subject-verb and pronoun-antecedent agreement, conventional usage, and appropriate punctuation are of particular importance to formal writing.

Core Standards for Speaking and Listening

Standards for the Range and Content of Student Speaking and Listening

A. **Group and One-to-One Situations:** Students are expected to be able to speak and listen effectively in both groups and one-to-one. Success in credit-bearing college coursework, whether in the humanities, mathematics, or the sciences, depends heavily on being able to take in and respond to the concepts and information conveyed in lectures and class discussions. Success in the workplace is similarly dependent on listening attentively to colleagues and customers and expressing ideas clearly and persuasively.

These speaking and listening skills may need to be applied differently in different settings. The immediate communication between two people might be replaced by formal turn taking in large-group discussions. When working in classroom or workplace teams, students should be able to ask questions that initiate thoughtful discussions, gain the floor in respectful ways, and build on the contributions of others to complete tasks or reach consensus.

B. **Varied Disciplinary Content:** Students must adapt their speaking and listening to a range of disciplines to communicate effectively. Each academic discipline and industry has its own vocabulary and conventions; for instance, evidence is handled and discussed differently in literary analysis than in history or medicine or the sciences. College- and career-ready students must develop a foundation of disciplinary knowledge and conventions in order not only to comprehend the complexity of information and ideas but also to present and explain them.

C. **Multimedia Comprehension:** New technologies expand the role that speaking and listening skills will play in acquiring and sharing knowledge. Students will need to view and listen to diverse media to gain knowledge and also must integrate this information with what they learn through reading text online as well as in print. When speaking, students can draw on media to illustrate their points, make data and evidence vivid, and engage their audience. Multimedia accelerates the speed at which connections between reading, writing, speaking, and listening can be made, requiring students to be ready to use these skills nearly simultaneously.

Core Standards for Speaking and Listening

Standards for Student Performance

1. Select and use a format, organization, and style appropriate to the topic, purpose, and audience.
2. Present information, findings, and supporting evidence clearly and concisely.
3. Make strategic use of multimedia elements and visual displays of data to gain audience attention and enhance understanding.
4. Demonstrate command of formal Standard English when appropriate to task and audience.
5. Listen to complex information, and discern the main ideas, the significant details, and the relationships among them.
6. Follow the progression of the speaker's message, and evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric.
7. Ask relevant questions to clarify points and challenge ideas.
8. Respond constructively to advance a discussion and build on the input of others.

Note: "Style appropriate to the topic, purpose, and audience" includes word choice specific to the demands of the discipline as well as delivery techniques such as gestures and eye contact that contribute to effective message delivery.

"Evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric" includes distinguishing facts from opinions and determining whether the speaker is biased and evidence has been distorted.

Application of the Core: Research

The Core Standards for Reading, Writing, and Speaking and Listening have been designed to include the essential skills and knowledge that students need to apply to college and career tasks such as research. This section shows how standards in the core incorporate the skills of research.

To be college and career ready, students must engage in research and present their findings in writing and orally, in print and online. The ability to conduct research independently and effectively plays a fundamental role in gaining knowledge and insight in college and the workplace.

Research as described here is not limited to the formal, extended research paper nor simply to gathering information from books; rather, research encompasses a flexible yet systematic approach to resolving questions and investigating issues through the careful collection, analysis, synthesis, and presentation of information from a wide range of print and digital sources, such as historical archives and online interviews. With well-developed research skills, students have the tools to engage in sustained inquiry as well as the sort of short, focused research projects that typify many assignments in college and the workplace.

Research in the digital age offers new possibilities as well as new or heightened challenges. While the Internet provides ready access to unprecedented amounts of primary and secondary source material (such as oral histories, historical documents, maps, and scientific reports), students sorting through this wealth of data must be skilled at and vigilant in determining the origin and credibility of these sources.

The following Core Standards pertain to elements of the research process and particular research skills required for college and career readiness:

Formulate research questions:

- Establish and refine a topic or thesis that addresses the specific task and audience. (W-1)
- Establish a substantive claim, distinguishing it from alternate or opposing claims. (W-16)

Gather and evaluate relevant information from a range of sources:

- Gather the information needed to build an argument, provide an explanation or address a research question. (W-2)
- Extract key information efficiently in print and online using text features and search techniques. (R-12)
- Ascertain the origin, credibility, and accuracy of print and online sources. (R-13)
- Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing whether the evidence provided is relevant and sufficient. (R-14)
- Follow the progression of the speaker's message and evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric. (S&L-6)

Analyze research sources:

- Delineate the main ideas or themes in the text and the details that elaborate and support them. (R-4)
- Listen to complex information and discern the main ideas, the significant details, and the relationships among them. (S&L-5)
- Discern the most important ideas, events, or information and summarize them accurately and concisely. (R-3)
- Synthesize data, diagrams, maps, and other visual elements with words in the text to further comprehension. (R-11)
- Synthesize information from multiple relevant sources, including graphics and quantitative information when appropriate, to provide an accurate picture of that information. (W-13)
- Analyze how two or more texts with different styles, points of view, or arguments address similar topics or themes. (R-15)
- Acknowledge competing arguments or information, defending or qualifying the initial claim as appropriate. (W-18)

Report findings:

- Link claims and evidence with clear reasons and ensure that the evidence is relevant and sufficient to support the claims. (W-17)
- Convey complex information clearly and coherently to the audience through purposeful selection and organization of the content. (W-14)
- Demonstrate understanding of the content by reporting the facts accurately and anticipating reader misconceptions. (W-15)
- Present information, findings, and supporting evidence, clearly and concisely. (S&L-2)
- Support and illustrate arguments and explanations with relevant details, examples, and evidence. (W-4)
- Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism. (W-10)

Application of the Core: Media

The Core Standards for Reading, Writing, and Speaking and Listening have been designed to include the essential skills and knowledge that students need to apply to college and career tasks such as media analysis and creation. This section shows how standards in the core apply to media.

Rapidly evolving technologies are powerful tools—but only for those who have the skills to put them to work. As the capability of the technology grows, students' command of these skills must only increase.

At the core of media mastery are the same fundamental capacities as are required offline in traditional print forms: an ability to access, understand, and evaluate complex materials and messages and to produce clear, effective communications. Media mastery does, however, call upon students to apply these core skills in new ways and contexts. Media enable students to communicate quickly with a large, often unknown, and broadly diverse audience. Whereas in the past, students may have had days or weeks to digest new information and formulate a response, the online environment pushes students to exercise judgment and present their responses in a matter of minutes.

Speed is not the only new factor. In the electronic world, reading, writing, speaking, and listening are uniquely intertwined. Multimedia forms force students to engage with constantly changing combinations of elements, such as graphics, images, hyperlinks, and embedded video and audio. The technology itself is changing quickly, creating new urgency for adaptation and flexibility on the part of students.

The following Core Standards describe the particular reading, writing, speaking, and listening skills that students will need in order to use media effectively in college and careers:

Standards for Range and Content drawn from each strand

Multimedia Sources: Students must be able to integrate what they learn from reading text with what they learn from audio, video, and other digital media. Many of the same critical issues that students face when reading traditional printed texts will arise as they seek to comprehend multimedia, such as determining where the author has chosen to focus, evaluating evidence, and comparing different accounts of similar subjects. [R-D]

Technology and Collaboration: Technology offers students powerful tools for producing, editing, and distributing writing as well as for collaboration. Especially in the workplace, writers often use technology to produce documents and to provide feedback. [W-D]

Multimedia Comprehension: New technologies expand the role that speaking and listening skills will play in acquiring and sharing knowledge. Students will need to view and listen to diverse media to gain knowledge and integrate this information with what they learn through reading text online as well as in print. When speaking, students can draw on media to illustrate their points, make data and evidence vivid, and engage their audiences. Multimedia accelerates the speed at which connections between reading, writing, and speaking and listening can be made, requiring students to be ready to use these skills nearly simultaneously. [S&L-C]

Standards for Student Performance drawn from each strand

Gather information from a wide array of electronic sources and multimedia:

- Extract key information efficiently in print and online using text features and search techniques. (R-12)
- Synthesize data, diagrams, maps, and other visual elements with words in the text to further comprehension. (R-11)
- Listen to complex information and discern the main ideas, the significant details, and the relationships among them. (S&L-5)

Evaluate information from digital media:

- Ascertain the origin, credibility, and accuracy of print and online sources. (R-13)
- Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing whether the evidence provided is relevant and sufficient. (R-14)
- Follow the progression of the speaker's message and evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric. (S&L-6)

Create and distribute media communications:

- Use technology as a tool to produce, edit, and distribute writing. (W-12)
- Synthesize information from multiple relevant sources, including graphics and quantitative information when appropriate, to provide an accurate picture of that information. (W-13)
- Make strategic use of multimedia elements and visual displays of data to gain audience attention and enhance understanding. (S&L-3)

Illustrative Texts

Exemplars of Reading Text Complexity

As described in the Standards for the Range and Content of Student Reading, college- and career-ready students must be able to read texts of sufficient complexity on their own. Studies show that many students who are unable to read sufficiently challenging texts independently by the end of high school struggle with the reading demands of college; many twenty-first-century careers likewise demand that people be able to obtain, search through, and comprehend large amounts of often technical information.

To develop that ability, students should engage with high-quality texts that provide strong models of thinking and writing, that challenge them intellectually, and that introduce them to rich content, sophisticated vocabulary, and examples of exceptional craft. The reading students do should be broad and deep, allowing them to extend their knowledge of particular subjects as well as learn about the features of texts written for different disciplines, audiences, and purposes. While no sampling can do justice to the numerous ways in which different authors craft complex prose, as a collection the exemplar texts below illustrate the level of complexity that college- and career-ready students should be able to handle independently by the end of high school. Texts in translation have not been included in this draft but will be part of future drafts.

How Text Complexity was Determined

In addition to surveys of required reading in twelfth grade and the first year of college as well as consultations with experts, two leading measurement systems were used to help make the selections below. The first system—a methodology described by Jeanne Chall and her coauthors in *The Qualitative Assessment of Text Difficulty*—employs trained raters to measure the sophistication of vocabulary, density of ideas, and syntactic complexity in a text as well as the general and subject-specific knowledge and the level of reasoning required for understanding it. The second system, Coh-Metrix, incorporates into its computer-based analysis more than sixty specific indices of syntax, semantics, readability, and cohesion to assess text complexity. Central to its assessment are measures of text cohesiveness, which is the degree to which the text uses explicit markers to link ideas. By analyzing the degree to which those links are missing in a text—and therefore the degree to which a reader must make inferences to connect ideas—this measure gauges a key factor in the comprehension demand of a text.

The two methods described above have limitations. The complexity of poems (such as "O Captain! My Captain!") cannot be assessed by Coh-Metrix because poetry adheres to different rules of construction than does prose. Similarly, while individual stories in the sample *New York Times* front pages can be measured for complexity by Coh-Metrix, the method does not capture how the electronic environment enhances or detracts from readability. However, for those exemplar texts whose complexity could be measured by both systems, comparable results were yielded by Coh-Metrix and the Chall method.

Note: The samples of complex text are supplemented by brief performance examples that further clarify the meaning of the standards. These illustrate specifically the application of the performance standards to texts of sufficient complexity, quality, and range. Relevant standards are noted in brackets following each sample performance.

Notes on Illustrative Text #1

Pride and Prejudice by Jane Austen

Jane Austen's *Pride and Prejudice* is a sophisticated literary text featuring multiple plotlines, a style and word choice reflective of its time period and setting, and subtle relationships among characters; the excerpt here can only illustrate some of the complexities that readers of the full work will encounter. The novel's opening sentence—"It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife"—signals that today's readers will need to employ literary imagination and historical context to re-create for themselves a world largely in the past. The novel's style is elaborate, with many lengthy and, to the modern ear, formal-sounding sentences typical of the period during which the novel was written. While the dialogue is less formal than much of the surrounding text, words and phrases such as *let* (to mean "rent" or "lease") and *chaise and four* (referring to a type of carriage) mark the novel's setting. The excerpt suggests also the kind of close reading of the subtleties of character that readers must perform. The banter between Mr. and Mrs. Bennet reveals both affection and difference of opinion, and it offers clues to the mores of well-to-do English society in the early nineteenth century.

Sample performance aligned with the Core Standards

Students analyze the first impressions given of Mr. and Mrs. Bennet in the first chapter of *Pride and Prejudice* based on how the characters are described, what they say and do, and how they interact. Students compare these first impressions with their later understanding based on how the characters develop throughout the novel. [R-6]

Illustrative Text #1

from *Pride and Prejudice*

Chapter 1

It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife.

However little known the feelings or views of such a man may be on his first entering a neighbourhood, this truth is so well fixed in the minds of the surrounding families that he is considered as the rightful property of some one or other of their daughters.

"My dear Mr. Bennet," said his lady to him one day, "have you heard that Netherfield Park is let at last?"

Mr. Bennet replied that he had not.

"But it is," returned she; "for Mrs. Long has just been here, and she told me all about it."

Mr. Bennet made no answer.

"Do not you want to know who has taken it?" cried his wife impatiently.

"*You* want to tell me, and I have no objection to hearing it."

This was invitation enough.

"Why, my dear, you must know, Mrs. Long says that Netherfield is taken by a young man of large fortune from the north of England; that he came down on Monday in a chaise and four to see the place, and was so much delighted with it, that he agreed with Mr. Morris immediately; that he is to take possession before Michaelmas, and some of his servants are to be in the house by the end of next week."

"What is his name?"

"Bingley."

"Is he married or single?"

"Oh! single, my dear, to be sure! A single man of large fortune; four or five thousand a year. What a fine thing for our girls!"

"How so? how can it affect them?"

"My dear Mr. Bennet," replied his wife, "how can you be so tiresome! You must know that I am thinking of his marrying one of them."

"Is that his design in settling here?"

"Design! nonsense, how can you talk so! But it is very likely that he *may* fall in love with one of them, and therefore you must visit him as soon as he comes."

"I see no occasion for that. You and the girls may go, or you may send them by themselves, which perhaps will be still better, for as you are as handsome as any of them, Mr. Bingley might like you the best of the party."

"My dear, you flatter me. I certainly *have* had my share of beauty, but I do not pretend to be any thing extraordinary now. When a woman has five grown-up daughters she ought to give over thinking of her own beauty."

"In such cases a woman has not often much beauty to think of."

"But, my dear, you must indeed go and see Mr. Bingley when he comes into the neighbourhood."

"It is more than I engage for, I assure you."

"But consider your daughters. Only think what an establishment it would be for one of them. Sir William and Lady Lucas are determined to go, merely on that account, for in general, you know, they visit no new-comers. Indeed you must go, for it will be impossible for us to visit him if you do not."

"You are over-scrupulous surely. I dare say Mr. Bingley will be very glad to see you; and I will send a few lines by you to assure him of my hearty consent to his marrying whichever he chuses of the girls: though I must throw in a good word for my little Lizzy."

"I desire you will do no such thing. Lizzy is not a bit better than the others; and I am sure she is not half so handsome as Jane, nor half so good-humoured as Lydia. But you are always giving *her* the preference."

"They have none of them much to recommend them," replied he; "they are all silly and ignorant, like other girls; but Lizzy has something more of quickness than her sisters."

"Mr. Bennet, how can you abuse your own children in such a way! You take delight in vexing me. You have no compassion on my poor nerves."

"You mistake me, my dear. I have a high respect for your nerves. They are my old friends. I have heard you mention them with consideration these twenty years at least."

"Ah! you do not know what I suffer."

"But I hope you will get over it, and live to see many young men of four thousand a year come into the neighbourhood."

"It will be no use to us if twenty such should come, since you will not visit them."

"Depend upon it, my dear, that when there are twenty, I will visit them all."

Mr. Bennet was so odd a mixture of quick parts, sarcastic humour, reserve, and caprice, that the experience of three-and-twenty years had been insufficient to make his wife understand his character. *Her* mind was less difficult to develope. She was a woman of mean understanding, little information, and uncertain temper. When she was discontented she fancied herself nervous. The business of her life was to get her daughters married; its solace was visiting and news.

Notes on Illustrative Text #2

"O Captain! My Captain!" by Walt Whitman

Though poetry's complexity cannot be assessed by the measures of readability used for the prose exemplars, "O Captain! My Captain!" by Walt Whitman clearly has many of the features of complex texts listed in the Standards for the Range and Content of Student Reading. Modern readers must work to understand what would have been obvious to readers in 1865: "O Captain! My Captain!" is an extended-metaphor poem intended to convey Whitman's and the North's grief over the assassination of Abraham Lincoln so near the conclusion of hostilities in the Civil War. Every element in the poem stands for something else, with the captain representing Lincoln, the ship representing the Union (or the "ship of state"), the voyage representing the war, and so on. Historical context, along with skill in reading literature, is thus particularly important to interpreting this text.

Sample performance aligned with the Core Standards

Students apply knowledge gained from reading the *New York Times* articles on Lincoln's assassination to their understanding of the poem "O Captain! My Captain!" Specifically, students draw on the description of the crowd's response to the attack on Lincoln to inform their understanding of Whitman's poem. [R-17]

Illustrative Text #2

"O Captain! My Captain!" by Walt Whitman

O Captain! my Captain! our fearful trip is done,
The ship has weather'd every rack, the prize we sought is won,
The port is near, the bells I hear, the people all exulting,
While follow eyes the steady keel, the vessel grim and daring,
But O heart! heart! heart!
O the bleeding drops of red,
Where on the deck my Captain lies,
Fallen cold and dead.

O Captain! my Captain! rise up and hear the bells;
Rise up—for you the flag is flung—for you the bugle trills,
For you bouquets and ribbon'd wreaths—for you the shores a-crowding,
For you they call, the swaying mass, their eager faces turning,
Here, Captain! dear father!
This arm beneath your head;
It is some dream that on the deck
You've fallen cold and dead.

My Captain does not answer, his lips are pale and still
My father does not feel my arm, he has no pulse nor will,
The ship is anchor'd safe and sound, its voyage closed and done,
From fearful trip, the victor ship comes in with object won;
Exult, O shores, and ring O bells!
But I with mournful tread
Walk the deck my Captain lies,
Fallen cold and dead.

Notes on Illustrative Text #3

The front page of the *New York Times*, April 15, 1865

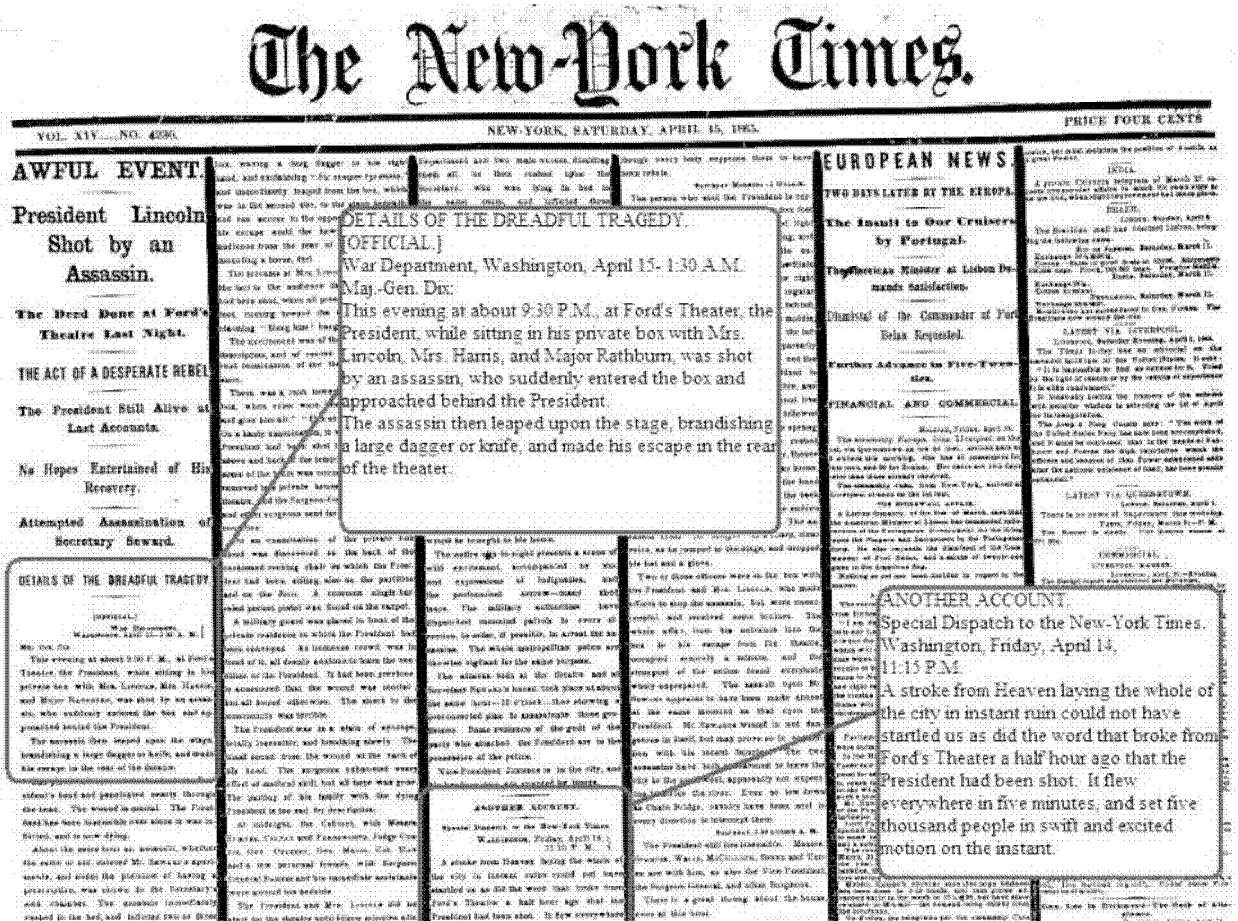
The challenge posed to a modern reader by the front page of the *New York Times* on April 15, 1865, is significant in terms of format, timeliness, and point of view. Unlike the graphically heavy front page of modern newspapers, this 1865 *New York Times* front page is mostly uninterrupted columns of text. The reader is obviously expected to proceed from top to bottom and left to right across the page, but little other guidance is provided. Because the assassination of Lincoln was still "breaking news" as this edition of the *Times* would have gone to press, some details of the event would have not yet been known; readers will have to sort out what they know about the assassination from what the people reading the paper on that Saturday morning would just have been learning. Three accounts of the events rather than one are provided here, and the sourcing and tone vary greatly. Certain details found in one place are contradicted in another: the "Detail of the Occurrence," for example, suggests that Lincoln may not have been mortally wounded, but the main headline in the top left-hand corner of the page states "No Hopes Entertained of His Recovery." While the first two accounts aim at a certain objectivity, the third begins with a flourish that may surprise readers more used to a restrained style of journalism: "A stroke from Heaven laying the whole of the city in instant ruin could not have startled us as did the word that broke from Ford's Theatre a half hour ago that the President had been shot."

Sample performance aligned with the Core Standards

Students analyze how the three different accounts on the front page portray Lincoln's assassination, including which details are similar or different. [R-15]

Illustrative Text #3: The front page of the *New York Times*, April 15, 1865

http://timesmachine.nytimes.com/browser/1865/04/15/P1



The New-York Times.

VOL. XIV.....NO. 4230. NEW-YORK, SATURDAY, APRIL 15, 1865. PRICE FOUR CENTS

AWFUL EVENT.

President Lincoln Shot by an Assassin.

The Deed Done at Ford's Theatre Last Night.

THE ACT OF A DESPERATE REBEL

The President Still Alive at Last Accounts.

No Hopes Entertained of His Recovery.

Attempted Assassination of Secretary Seward.

DETAILS OF THE DREADFUL TRAGEDY.

EUROPEAN NEWS.

TWO DAYS LATER BY THE EUROPA.

The Insult to Our Cruisers by Portugal.

The Portuguese Minister at Lisbon Demands Satisfaction.

Dismissal of the Commander of Forts Relax Requested.

Further Advances in Five-Twenties.

FINANCIAL AND COMMERCIAL.

DETAILS OF THE DREADFUL TRAGEDY.

[OFFICIAL.]

War Department, Washington, April 15- 1:30 A.M.

Maj.-Gen. Dix:

This evening at about 9:30 P.M., at Ford's Theater, the President, while sitting in his private box with Mrs. Lincoln, Mrs. Harris, and Major Rathbum, was shot by an assassn, who suddenly entered the box and approached behind the President.

The assassin then leaped upon the stage, brandishing a large dagger or knife, and made his escape in the rear of the theater.

ANOTHER ACCOUNT.

Special Dispatch to the New-York Times.

Washington, Friday, April 14, 11:15 P.M.

A stroke from Heaven laying the whole of the city in instant ruin could not have startled us as did the word that broke from Ford's Theater a half hour ago that the President had been shot. It flew everywhere in five minutes, and set five thousand people in swift and excited motion on the instant.

DETAIL OF THE OCCURRENCE.

Washington, Friday, April 14- 12:30 A.M.

The President was shot in a theater tonight, and is, perhaps, mortally wounded. Secretary Seward was also assassinated.

SECOND DISPATCH.

Washington, Friday, April 14. President Lincoln and wife, with other friends, this evening visited Ford's Theater for the purpose of witnessing the performance of the "American Cousin."

Notes on Illustrative Text #4

The Declaration of Independence

The Declaration of Independence represents the kind of rich primary source material students should be able to read on their own by the end of high school. Though some of the lines ("We hold these truths . . .") are familiar to most American readers, the case against Great Britain that the Declaration lays out, expressed in elevated, sometimes archaic language (*unalienable*, *hath*, *usurpations*), requires careful examination to follow in its particulars. The beginning of the document, excerpted here, poses a reading challenge partly because of its philosophical abstractness. The first three sentences, although formally divided, are one continuous list of propositions ("truths") about the nature of government and the rights of the people. Further complicating the reading is that there is little explicit cohesion between sentences—links supplied by words and phrases such as "for example," "moreover," or "in addition"—to help readers understand the relationship between the ideas being expressed.

Sample performance aligned with the Core Standards

Students compare the argument that the Declaration makes justifying revolution to Martin Luther King, Jr.'s defense of civil disobedience in *Letter from Birmingham Jail*. [R-15]

Illustrative Text #4

from The Declaration of Independence

When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. —That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, —That whenever any Form of Government becomes destructive to these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn, that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new guards for their future security. —Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid world.

Notes on Illustrative Text #5

Letter from Birmingham Jail by Martin Luther King, Jr.

Martin Luther King, Jr.'s, *Letter from Birmingham Jail* presents many challenges to the reader in terms of its format, purpose, tone, use of allusions, and language. Apart from letters to the editor (most of which are relatively short), public letters such as King's are uncommon today. The purpose of the text may also be confusing: King is ostensibly addressing his "Fellow Clergymen," but skilled readers will reasonably infer that King's message is intended for a broader audience. Though the tone of the text is measured, King's passion for his cause comes through. The author frequently points outside the *Letter* itself through allusions to other texts, including the Hebrew and Christian scriptures. Moreover, King uses sophisticated vocabulary (*cognizant*, *mutuality*, *provincial*, *gainsaying*) and figurative language (*garment of destiny*) throughout his text. However, the piece is both coherent in that its sequence is signaled ("While confined here . . . But more basically . . . Moreover, I am cognizant . . .") and cohesive in that its clauses and sentences are logically linked for the reader ("Just as the prophets . . . and just as the Apostle Paul . . . so am I compelled . . .").

Sample performance aligned with the Core Standards

Students evaluate the reasoning and rhetoric of the three very different arguments King makes to defend his being in Birmingham. Students assess the different kinds of evidence he uses to support each argument. [R-14]

Illustrative Text #5

from *Letter from Birmingham Jail**

License granted by Intellectual Properties Management, Atlanta, Georgia, as exclusive licensor of the King Estate.

My Dear Fellow Clergymen:

While confined here in the Birmingham city jail, I came across your recent statement calling my present activities "unwise and untimely." Seldom do I pause to answer criticism of my work and ideas. If I sought to answer all the criticisms that cross my desk, my secretaries would have little time for anything other than such correspondence in the course of the day, and I would have no time for constructive work. But since I feel that you are men of genuine good will and that your criticisms are sincerely set forth, I want to try to answer your statements in what I hope will be patient and reasonable terms.

I think I should indicate why I am here In Birmingham, since you have been influenced by the view which argues against "outsiders coming in." I have the honor of serving as president of the Southern Christian Leadership Conference, an organization operating in every southern state, with headquarters in Atlanta, Georgia. We have some eighty-five affiliated organizations across the South, and one of them is the Alabama Christian Movement for Human Rights. Frequently we share staff, educational and financial resources with our affiliates. Several months ago the affiliate here in Birmingham asked us to be on call to engage in a nonviolent direct-action program if such were deemed necessary. We readily consented, and when the hour came we lived up to our promise. So I, along with several members of my staff, am here because I was invited here I am here because I have organizational ties here.

But more basically, I am in Birmingham because injustice is here. Just as the prophets of the eighth century B.C. left their villages and carried their "thus saith the Lord" far beyond the boundaries of their home towns, and just as the Apostle Paul left his village of Tarsus and carried the gospel of Jesus Christ to the far corners of the Greco-Roman world, so am I. compelled to carry the gospel of freedom beyond my own home town. Like Paul, I must constantly respond to the Macedonian call for aid.

Moreover, I am cognizant of the interrelatedness of all communities and states. I cannot sit idly by in Atlanta and not be concerned about what happens in Birmingham. Injustice anywhere is a threat to justice everywhere. We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly. Never again can we afford to live with the narrow, provincial "outside agitator" idea. Anyone who lives inside the United States can never be considered an outsider anywhere within its bounds.

*As reprinted in *Why We Can't Wait* by King, Jr., M. L. (2000). New York City: Signet Classics.

Notes on Illustrative Text #6

Toni Morrison's Nobel lecture, 1993

Toni Morrison's Nobel lecture, though originally delivered orally, can be read on the page as a complex work of analysis and criticism. Its structure, syntax, imagery, language, and density of ideas contribute to the challenge of studying it in this manner. As this excerpt shows, Morrison begins with a folktale. While the "once upon a time" opening may lead readers into thinking that the lecture will primarily be in narrative form, Morrison uses the tale mainly as a springboard for an abstract, allegorical discussion of language, writing, and those who have no voice in society. Morrison often employs sophisticated sentences that require patience and concentration to follow. Readers may recognize places where Morrison varies sentence patterns to change pace and rhythm—particularly important to the oral delivery of the text. The images Morrison creates are powerful and poetic, the diction is elevated and academic, and the word choice is metaphorical and unconventional: "Official language smitheryed to sanction ignorance and preserve privilege is a suit of armor polished to shocking glitter, a husk from which the knight departed long ago." The richness and abstractness of the ideas in the lecture mean that rereadings may be necessary to comprehend and evaluate the ideas fully.

Sample performance aligned with the Core Standards

Students determine what Morrison means when she compares language to "a bird in the hand," including the different connotations of this phrase that she develops throughout the lecture. Students also explore what Morrison means by saying that both the bird and language can be "dead or alive." [R-7]

Illustrative Text #6

from Toni Morrison's Nobel lecture, 1993

Copyright © The Nobel Foundation 1993. Reprinted by permission.

"Once upon a time there was an old woman. Blind but wise." Or was it an old man? A guru, perhaps. Or a griot soothing restless children. I have heard this story, or one exactly like it, in the lore of several cultures.

"Once upon a time there was an old woman. Blind. Wise."

In the version I know the woman is the daughter of slaves, black, American, and lives alone in a small house outside of town. Her reputation for wisdom is without peer and without question. Among her people she is both the law and its transgression. The honor she is paid and the awe in which she is held reach beyond her neighborhood to places far away; to the city where the intelligence of rural prophets is the source of much amusement.

One day the woman is visited by some young people who seem to be bent on disproving her clairvoyance and showing her up for the fraud they believe she is. Their plan is simple: they enter her house and ask the one question the answer to which rides solely on her difference from them, a difference they regard as a profound disability: her blindness. They stand before her, and one of them says, "Old woman, I hold in my hand a bird. Tell me whether it is living or dead."

She does not answer, and the question is repeated. "Is the bird I am holding living or dead?"

Still she doesn't answer. She is blind and cannot see her visitors, let alone what is in their hands. She does not know their color, gender or homeland. She only knows their motive.

The old woman's silence is so long, the young people have trouble holding their laughter.

Finally she speaks and her voice is soft but stern. "I don't know", she says. "I don't know whether the bird you are holding is dead or alive, but what I do know is that it is in your hands. It is in your hands."

Her answer can be taken to mean: if it is dead, you have either found it that way or you have killed it. If it is alive, you can still kill it. Whether it is to stay alive, it is your decision.

Whatever the case, it is your responsibility.

For parading their power and her helplessness, the young visitors are reprimanded, told they are responsible not only for the act of mockery but also for the small bundle of life sacrificed to achieve its aims. The blind woman shifts attention away from assertions of power to the instrument through which that power is exercised.

Speculation on what (other than its own frail body) that bird-in-the-hand might signify has always been attractive to me, but especially so now thinking, as I have been, about the work I do that has brought me to this company. So I choose to read the bird as language and the woman as a practiced writer. She is worried about how the language she dreams in, given to her at birth, is handled, put into service, even withheld from her for certain nefarious purposes. Being a writer she thinks of language partly as a system, partly as a living thing over which one has control, but mostly as agency—as an act with consequences. So the question the children put to her: "Is it living or dead?" is not unreal because she thinks of language as susceptible to death, erasure; certainly imperiled and salvageable only by an effort of the will. She believes that if the bird in the hands of her visitors is dead the custodians are responsible for the corpse. For her a dead language is not only one no longer spoken or written, it is unyielding language content to admire its own paralysis. Like statist language, censored and censoring. Ruthless in its policing duties, it has no desire or purpose other than maintaining the free range of its own narcotic narcissism, its own exclusivity and dominance. However moribund, it is not without effect for it actively thwarts the intellect, stalls conscience, suppresses human potential. Unreceptive to interrogation, it cannot form or tolerate new ideas, shape other thoughts, tell another story, fill baffling silences. Official language smitheryed to sanction ignorance and preserve privilege is a suit of armor polished to shocking glitter, a husk from which the knight departed long ago. Yet there it is: dumb, predatory, sentimental. Exciting reverence in schoolchildren, providing shelter for despots, summoning false memories of stability, harmony among the public.

Notes on Illustrative Text #7

Inquiry into Life, 12th edition, by Sylvia S. Mader

These excerpts, and the prominent college-level biology textbook from which they are drawn, represent some of the challenges presented by complex writing in natural science, including discipline-specific terms (*covalent bond*, *plasma membrane*, *neurotransmitter*), everyday language used in specialized ways (*shell*, *channel*), abbreviations (H^+, *AChE*), and chains of cause-effect relationships that together describe sometimes elaborate processes. Although the figures the author, Sylvia S. Mader, refers to in the text are not included with these excerpts, students reading the larger work will have to integrate words, illustrations, and diagrams to make full sense of the ideas and concepts she describes. For these reasons and others, comprehension may be difficult for readers who have not had experience independently reading similar kinds of text and who lack a knowledge base in the subject. The author does employ a number of cohesive features to help readers understand the terminology and to link ideas. She repeats content words to let readers follow the flow of ideas; she sets up contrastive situations to illustrate the ideas (within, for example, the first and the third paragraphs below); and she uses transitional links ("In some synapses . . . In other synapses . . .") to help readers construct meaning.

Sample performance aligned with the Core Standards

Students discern the most important information in the description of covalent bonding and provide an accurate summary of the concept. [R-3]

Illustrative Text #7

from *Inquiry into Life*, 12th edition

Copyright © The McGraw-Hill Companies, Inc.

A **covalent bond** results when two atoms share electrons in such a way that each atom has an octet of electrons in the outer shell. In a hydrogen atom, the outer shell is complete when it contains two electrons. If hydrogen is in the presence of a strong electron acceptor, it gives up its electron to become a hydrogen ion (H^+). But if this is not possible, hydrogen can share with another atom and thereby have a completed outer shell. For example, one hydrogen atom will share with another hydrogen atom. Their two orbitals overlap, and the electrons are shared between them. Because they share the electron pair, each atom has a completed outer shell.

* * * * * * * *

The passage of salt (NaCl) across a plasma membrane is of primary importance to most cells. The chloride ion (Cl^-) usually crosses the plasma membrane because it is attracted by positively charged sodium ions (Na^+). First sodium ions are pumped across a membrane, and then chloride ions simply diffuse through channels that allow their passage.

As noted in Figure 4.2*a*, the genetic disorder cystic fibrosis results from a faulty chloride channel. Ordinarily, after chloride ions have passed though the membrane, sodium ions (Na^+) and water follow. In cystic fibrosis, Cl^- transport is reduced, and so is the flow of Na^+ and water.

* * * * * * * *

Once a neurotransmitter has been released into a synaptic cleft and has initiated a response, it is removed from the cleft. In some synapses, the postsynaptic membrane contains enzymes that rapidly inactivate the neurotransmitter. For example, the enzyme **acetylcholinesterase (AChE)** breaks down acetylcholine. In other synapses, the presynaptic membrane rapidly reabsorbs the neurotransmitter, possibly for repackaging in synaptic vesicles or for molecular breakdown. The short existence of neurotransmitters at a synapse prevents continuous stimulation (or inhibition) of postsynaptic membranes.

Notes on Illustrative Text #8

Sample business memo (ACT WorkKeys Reading for Information Test)

Though not a typical kind of reading in high school classrooms, the business communication, such as the one sampled here, is a form that career-ready students will need to be able to comprehend independently. This text, taken from ACT's WorkKeys Reading for Information Test, is challenging in large part because, like many such communications, it contains important, detailed information intended for a specialized audience. Structurally, the text offers little guidance on how it should be read. Potentially vital details appear throughout and are mingled with other details irrelevant to some readers (e.g., those without children). Even the paragraphing is somewhat inconsistent, especially between the first and second paragraphs. While the sentences are not particularly long and the language is not overly technical, the density of information and its lack of prioritization make this a complex text.

Sample performance aligned with the Core Standards

Students infer from the memo the conditions under which children who are under nineteen are not covered by the health plan. [R-1]

Illustrative Text #8

Sample business memo

WorkKeys Reading for Information Test has been reproduced with permission of ACT, Inc.

DETERMINING ELIGIBILITY FOR MEDICAL COVERAGE

All full-time employees of the company who work an average of at least 30 hours per week are eligible under this plan. Coverage begins on the first day of the month following the 30 days of active full-time employment. If employees enroll within 31 days of the date they are eligible, medical evidence of good health is not required. Temporary and part-time employees are not eligible. Employees are no longer eligible under this plan one month after the date they begin active duty in the armed forces of any country and continuing for the duration of their service.

If employees enroll their dependents within 31 days of the date they become eligible, medical evidence of good health is not required. If they do not, they will be required to submit evidence of good health for each dependent, at their expense, which is satisfactory to the company.

The following dependents are eligible under this plan: employees' spouses, employees' unmarried children under age 19, employees' unmarried dependent children under age 23 who are attending trade school, college, or university on a full-time basis, or employees' unmarried disabled children age 19 and over. Coverage ceases when spouses or children cease to be dependent upon employees for support. In the case of employees' spouses this is if they are legally separated or divorced. In the case of disabled children, this is when they are no longer disabled. Coverage will cease when dependents have served in the armed forces of any country for more than one month, or when maximum benefits have been paid.

Notes on Illustrative Text #9

FedViews, July 9, 2009, by Mary C. Daly (The Federal Reserve Bank of San Francisco's Web site)

This text illustrates some of the difficulties posed by integrating information gained from words and graphics. This sort of challenge is common in writing designed to inform or explain, including writing in the workplace. The bullet point format used here means that the kind of explicit transitions between ideas typically found in prose are missing; readers will have to infer relationships between the points made by the author, Mary C. Daly, and synthesize the information into a coherent whole. Readers will furthermore have to analyze both the words and the graphics, integrate the information, and check to see whether each source of information supports the other. Daly also uses a great deal of specialized language; the terms *feedback loop*, *credit availability*, and *barriers to credit* all appear in just the first bullet point here.

Sample performance aligned with the Core Standards

Students synthesize information drawn from the text as well as the graphs in order to gain an overarching view of the economy on July 9, 2009. [R-11]

Illustrative Text #9

from FedViews, July 9, 2009

Reprinted from the Federal Reserve Bank of San Francisco's FedViews of July 9, 2009. The opinions expressed in this article do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco, or of the Board of Governors of the Federal Reserve System.

Mary C. Daly, vice president and director of the Center for the Study of Innovation and Productivity at the Federal Reserve Bank of San Francisco, states her views on the current economy and the outlook.

- Financial markets are improving, and the crisis mode that has characterized the past year is subsiding. The adverse feedback loop, in which losses by banks and other lenders lead to tighter credit availability, which then leads to lower spending by households and businesses, has begun to slow. As such, investors' appetite for risk is returning, and some of the barriers to credit that have been constraining businesses and households are diminishing.

- Income from the federal fiscal stimulus, as well as some improvement in confidence, has helped stabilize consumer spending. Since consumer spending accounts for two-thirds of all economic activity, this is a key factor affecting our forecast of growth in the third quarter.

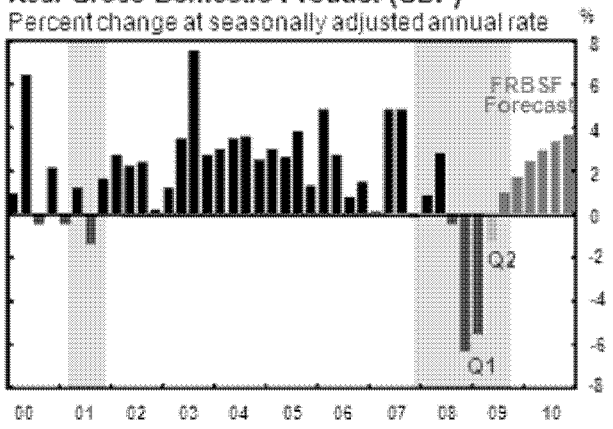
- The gradual nature of the recovery will put additional pressure on state and local budgets. Following a difficult 2009, especially in the West, most states began the 2010 fiscal year on July 1 with even larger budget gaps to solve.

- Still, many remain worried that large fiscal deficits will eventually be inflationary. However, a look at the empirical link between fiscal deficits and inflation in the United States shows no correlation between the two. Indeed, during the 1980s, when the United States was running large deficits, inflation was coming down.

Modest recovery to begin in Q3

Real Gross Domestic Product (GDP)

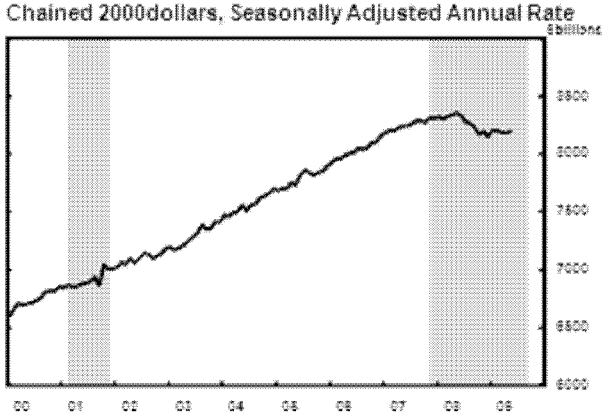
Percent change at seasonally adjusted annual rate



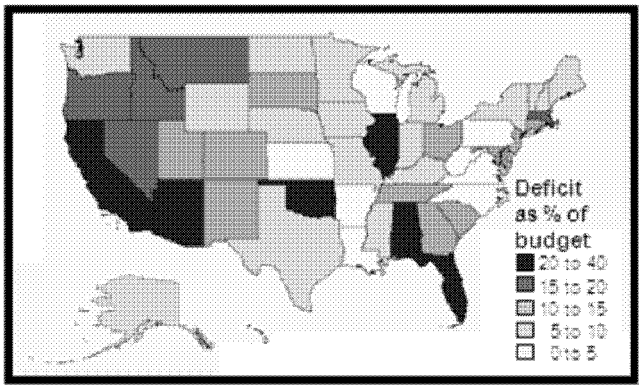
Consumers hanging on

Real Personal Consumption Expenditures

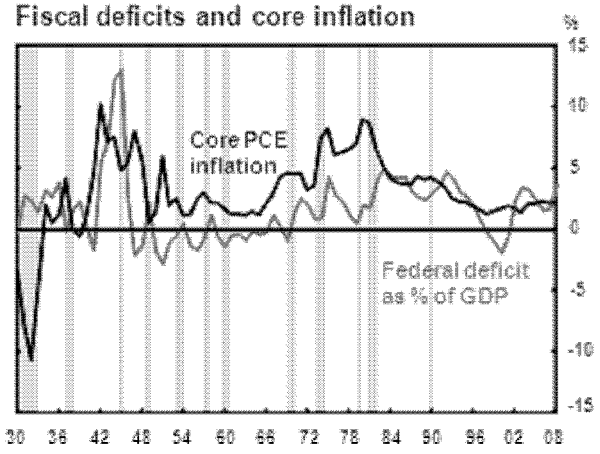
Chained 2000dollars, Seasonally Adjusted Annual Rate



State budget gaps pervasive in 2009



No link between deficits and inflation



Notes on Illustrative Text #10

The front page of the *New York Times*, Web version, August 18, 2009, 9:03 a.m. ET

The challenge offered by this online text and others like it is very different from that offered by a complex continuous text in, say, the sciences. The brief passages are not conceptually difficult, the language is not technical or esoteric, and the sentences are not particularly complex. But these characteristics belie the complexity of the reading task. An online text of this kind requires readers to apply their print-reading skills in tandem with their knowledge of how to use online periodicals. The editors and designers have assigned levels of importance to individual stories and images, as measured by their size and position in the layout. The page itself uses words, numbers, icons, and other visual elements (e.g., line, color, and shape) to guide readers further. Headings in various colors direct readers to particular sections (OPINION, MARKETS, HEALTH), while links direct readers to particular stories ("Taliban Talks Are Key Issue in Afghan Vote"). Time markers ("3 minutes ago") help readers assess how new the information in a given story is. The text requires readers to make choices about which links to follow based on their understanding of how online text is typically structured and on a minimum of additional information (e.g., an icon of a camera, a drop-down menu in an ad).

Sample performance aligned with the Core Standards

Students select an article and use search terms and other features of the online text to research a specific aspect of the subject in more depth. [R-12]

Illustrative Text #10

The front page of the *New York Times*, Web version, August 18, 2009, 9:03 a.m. ET

From The New York Times, August 18, 2009. The New York Times: All rights reserved. Used by permission and protected by the Copyright Laws of the United States. The printing, copying, redistribution, or retransmission of the Material without express written permission is prohibited. http://www.nytimes.com

Sample of Works Consulted

I. College Readiness

A. Achieve, Inc. (2004). The American Diploma Project, *Ready or Not: Creating a High School Diploma that Counts*. Washington, DC: Achieve, Inc. (PDF)

B. Achieve, Inc. (2008) *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up*. Washington, DC: Achieve, Inc. (PDF)

C. ACT. (2009). *ACT College Ready English Standards*. Iowa City, IA: ACT. (PDF)

D. ACT. (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (PDF)

E. ACT. (2007). *Aligning Postsecondary Expectations and High School Practice: The Gap Defined (Policy Implications of the ACT National Curriculum Survey Results 2005-2006)*. Iowa City, IA: ACT. (PDF)

F. ACT. (2006). *Reading Between the Lines: What the ACT Reveals about College Readiness in Reading.* Iowa City, IA: ACT. (PDF)

G. ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (PDF)

H. ACT. (2007). *Rigor at Risk: Reaffirming Quality in the High School Core Curriculum.* Iowa City, IA: ACT. (PDF)

I. College Board (2008) *AP English Language and Composition and English Literature and Composition Course Description.* New York, NY: College Board. (PDF)

J. College Board (2009) *AP European History Course Description*, New York, NY: College Board. (PDF)

K. College Board (2009) *AP World History Course Description*, New York, NY: College Board. (PDF)

L. College Board. (2006). *College Board Standards for College Success.* New York, NY: College Board. (PDF)

M. Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research.

N. Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (PDF)

O. Marzano, R.J. and Kendall, J.S. (2007). *The New Taxonomy of Educational Objectives.* Second Edition. Thousand Oaks, CA: Corwin Press.

P. Morreale, S. & Pearson, J. (2008) "Why communication education is important: The centrality of the discipline in the 21st century." *Communication Education*, 57(2), 224-240.

Q. Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Entrance Examination Board. (PDF)

R. *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (Achieve).

II. Career Readiness

A. Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts*. Washington, DC: Achieve, Inc. (PDF)

B. ACT. (2007). *Aligning Postsecondary Expectations and High School Practice: The Gap Defined (Policy Implications of the ACT National Curriculum Survey Results 2005-2006)*. Iowa City, IA: ACT. (PDF)

C. ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (PDF)

D. ACT. (2007). *Rigor at Risk: Reaffirming Quality in the High School Core Curriculum*. Iowa City, IA: ACT. (PDF)

E. Casner-Lotto, J., Rosenblum, E., and Wright, M., (2009). *The Ill-Prepared Workforce: Exploring the Challenges of Employer-Provided Workforce Readiness Training.* The Conference Board.

F. Florida American Diploma Project Survey Results. (Achieve).

G. Hawai'i Career Ready Study. (2007). Commissioned by the Hawai'i P-20 Initiative.(PDF)

H. *Missouri Career Prep Certificate Program Planning Guide,* Missouri Department of Elementary and Secondary Education. (PDF)

I. Morreale, S. & Pearson, J. (2008) "Why communication education is important: The centrality of the discipline in the 21st century." *Communication Education*, 57(2), 224-240.

J. National Alliance of Business. (2002).*The American Diploma Project Workplace Study*. Washington, DC.

K. Partnership for 21st Century Skills. (2009). *Framework for 21st Century Learning*. Tucson, AZ.

L. Qualifications and Curriculum Authority. (2007). *Functional Skills and Standards.* (PDF)

M. The Conference Board. (2008). *New Graduates' Workforce*

Readiness.

III. International Documents

A. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003. (PDF)

B. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes,* 2007. (PDF)

C. **British Columbia:** English Literature 12, Integrated Resource Package, 2003. (PDF)

D. **England:** *English Programme of Study for Key stage 4*, 2007. (PDF)

E. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003. (PDF)

F. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (PDF)

G. **Hong Kong:** Hong Kong Examinations and Assessment Authority, 2007 HKCEE English Language, Recommended Texts for the School-Based Assessment Component. (PDF)

H. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level.* (PDF)

I. **Ireland:** Prescribed Material for English in the Leaving Certificate Examination in 2009. (PDF)

J. **New South Wales:** *English Stage 6 Syllabus, 1999.* (PDF)

K. **New South Wales**: 2009-2012 HSC, Prescribed Area of Study, Electives and Texts. (PDF)

L. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007. (PDF)

M. **Singapore:** *English Language Syllabus 2001*. (PDF)

N. **Singapore:** O-Level Literature in English (Syllabus 2015), Prescribed Texts for 2009. (PDF)

O. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2006. (PDF)

P. **Victoria, Australia:** VCE English/ESL Text List 2008-2009, VCE Literature Text List 2008. (PDF)

Q. Achieve, Inc., National Governors Association, Council of Chief State School Officers. (2008). *Benchmarking for Success: Ensuring U.S. Students receive a World Class Education*. Washington, DC. (PDF)

R. Education Commission of the States. (2008). *From Competing to Leading: An International Benchmarking Blueprint*. Denver, CO. (PDF)

S. Education Commission of the States. (2009). *International Benchmarking Toolkit.* Denver, CO. (PDF)

T. Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills*. Paris, France. (PDF)

U. Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1.* [see Chapter 6 for reading assessment results] Paris, France. (PDF)

IV. State and Other Standards Documents

A. **California:** *English-Language Arts Content Standards for California Public Schools.* California Department of Education (1997). (PDF)

B. **Florida:** *2006 Sunshine State Standards K-12 Reading and Language Arts.* Florida Department of Education (2006). (PDF)

C. **Georgia:** Georgia ELA Standards (K-12).

D. **Indiana**: Reading List, Grades 9-12. (PDF)

E. **Massachusetts**: *English Language Arts Curriculum Framework.* Massachusetts Department of Education (June 2001). (PDF)

F. **Minnesota:** *Minnesota Academic Standards, Language Arts (K-12),* (2003). (PDF)

G. **Texas:** *Texas College Readiness Standards*, (2008). (PDF)

H. National Council of Teachers of English and the International Reading Association. (1996). *Standards for the English Language Arts.* (PDF)

I. U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009*. Washington, DC: National Assessment Governing Board. (PDF)

J. U.S. Dept. of Education. (2007). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (MS Word Document)

V. Disciplinary Literacy Research

A. Carnegie Council on Advancing Adolescent Literacy. (2010). *Time to act: An agenda for advancing adolescent literacy for college and career success*. New York, NY: Carnegie Corporation of New York. (PDF)

B. Fang, Z., & Schleppegrell, M. J. (2008). *Reading in secondary content areas.* Ann Arbor: University of Michigan Press.

C. Lee, C.D., Spratley, A. (2010). *Reading in the disciplines: The challenges of adolescent literacy*. New York, NY: Carnegie Corporation of New York. (PDF)

D. Moje, E. B., Young, J. P., Readence, J. E., & Moore, D. W. (2000). Reinventing adolescent literacy for new times: Perennial and millennial issues. *Journal of Adolescent and Adult Literacy, 43*, 400–410.

E. Schleppegrell, M. J. (2004). *The language of schooling: A functional linguistics perspective.* Mahwah, NJ: Lawrence Erlbaum Associates.

F. Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content-area literacy. *Harvard Educational Review, 78,* 40–59.

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

What follows is a sample of sources consulted in the drafting of the Core Standards for Reading, Writing, and Speaking and Listening. Citations are organized by the standard to which they pertain. For example, all sources with specific relevance to reading standard #1 are listed below that standard. Each citation contains a link to the section of the source document that is relevant to the core reading, writing, or speaking and listening standard to which it corresponds. For more information on sources and how they were used in the drafting of the core standards, please refer to the "College and Career Readiness Standards for Reading, Writing, and Speaking and Listening."

Reading Evidence

Reading 1. Determine both what the text says explicitly and what can be inferred logically from the text.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts*. Washington, DC: Achieve, Inc. (see sample post-secondary assignment #4, pgs. 98-99)
- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #2 "Making inferences and drawing conclusions")
- ACT. (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #4 and #15).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).
- *AP European and World History Course Descriptions* (2009), New York, NY: College Board (see pgs. 21-24 in AP European History for document-based question expectations). AP World and U.S. History also have these expectations.

Career Readiness

- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Main Ideas and Supporting Details")
- *Hawai'i Career Ready Study*. (2007). Commissioned by the Hawai'i P-20 Initiative. (see sample task "Review Commercial Real Estate Loan Application," Banking/Loan Officer; see sample task "Review claim letter," Insurance/Claims Agent)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.1.2.a)

2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B6, B7)
3. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 5.4.a, Higher; 5.5.a, Ordinary)
4. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (see 1.4, Grade 12 Reading & Literature Studies)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 8.1.d, 8.2.d, 8.3.c)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 293, Reading Proficiency Levels 2 and 4) (PISA 2006, Vol. 1, full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills*. Paris, France: Organization for Economic Cooperation and Development. (pgs. 112-115, esp. pg.114 "Retrieving Information")

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Reading Competencies, Comprehension and Retention, bullet 14)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see 1.A.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California:** *English-Language Arts Content Standards for California Public Schools.* (see 2.5, Grades 11-12, 2.0 Reading Comprehension Grades 11-12, 2.2.a-e Writing Applications Grades 11-12)
2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 8: Understanding a Text, General Standard 12: Fiction, General Standard 13: Nonfiction)

U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009*. Washington, DC: National Assessment Governing Board. (see "Locate and Recall," see "Integrate and Interpret," see Basic and Advanced – Literary; Proficient – Informational)

Reading 2. Support or challenge assertions about the text by citing evidence in the text explicitly and accurately.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #6, pgs. 102-103)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #7 "Justifying a personal interpretation of a text through specific references")
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #4 and #15).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).
- *AP European and World History Course Descriptions* (2009), New York, NY: College board (see pgs. 21-24 in AP European History for document-based question expectations). AP 5 high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30 2.3.2.b and 30.3.2.3.c)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B8)
    3. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (see 1.4 &1.7, Grade 12 Reading & Literature Studies)
    4. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language,* 2007 (≈ Grades 11-12) (see Unit 1, Outcome 1, Key Skill 4; Unit 3, Outcome 1, Key Skill 3)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.d)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 289, example PISA item "Graffiti") (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris, France: Organization for Economic Cooperation and Development. (see pg. 115, "Reflecting on and Evaluating the Content of a Text")

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2009). *Reading Framework for the 2009 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Proficient-Informational bullet 1)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.A.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **California:** *English-Language Arts Content Standards for California Public Schools.* (see 2.4, Reading Comprehension Grades 11-12; 2.2.b, Grades 9-10, 3.2 Literary Response and Analysis Grades 11-12, 2.2.c Writing Applications Grades 11-12)
2. **Massachusetts:** *English Language Arts Curriculum Framework,* June 2001. (see 8.30, General Standard 11: Theme, 11.5, 11.7; General Standard 13: Nonfiction;General Standard 15: Style and Language)

Reading 3. Discern the most important ideas, events, or information, and summarize them accurately and concisely.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #4, pgs. 98-99)
- *Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices. New York, NY: College Entrance Examination Board* (see pg. 7- skills rated by importance to post-secondary instructors- skill #1 "Identifying and/or summarizing the theme or central argument of a text," skill #4 "Understanding and paraphrasing points made in a text")
- ACT (2006), *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #3, #6).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Informational Text 2. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 9. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (Workplace Task #5, pg. 82-83)
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (See point 3 on pg. 13; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Main Ideas and Supporting Details")

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 20.2.1.2.b)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B6, B7)
3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Reading bullet 2)
4. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 4.1.1.a; 4.1.1.c)
5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.3, Grade 12 Reading & Literature Studies)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 8.1.b, 8.2.b, 8.3.a)

- Organization for Economic Cooperation and Development. (2006). PISA 2006: *Science Competencies for Tomorrow's World, Vol. 1* (see pg. 291, example PISA item "Runners") (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris, France: Organization for Economic Cooperation and Development. (see pg. 114, "Forming a Broad General Understanding")

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities. (see Making the Reading/Writing Connection bullet 2; Reading Competencies, Comprehension and Retention bullets 1, 2 and 5)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 8: Understanding a Text)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Locate and Recall", see Basic-Informational bullet 1)

Reading 4. Delineate the main ideas or themes in the text and the details that elaborate them.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #4, pgs. 98-99)
- ACT (2006), *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #3, #6).

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Informational Text 2. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 9. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (Workplace Task #5, pg. 82-83)
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (See point 2, page 12; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Main Ideas and Supporting Details")

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 20.2.1.2.b; 10/20/30.2.3.2.f)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes*, 2007 (Grade 12) (see B6, B7)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Reading bullet 2)
    4. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 4.1.1.a)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.3 and 1.6, Grade 12 Reading & Literature Studies)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 1, Key Knowledge 1; Unit 2, Outcome 1, Key Skill 2; Unit 3, Outcome 2, Key Knowledge 2)
- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 1.4.a-b)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11)
    (Did not participate in PISA) (see 8.1.b-c, 8.2.b; 9.1.c)

- Organization for Economic Cooperation and Development. (2006). PISA 2006: *Science Competencies for Tomorrow's World, Vol. 1* (see pg. 291, example PISA item "Runners") (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris,

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

France: Organization for Economic Cooperation and Development. (see pg. 114, "Forming a Broad General Understanding")

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, F2 - in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities. (see Reading Competencies, Comprehension and Retention bullets 5 and 6, Listening bullet 2)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **Massachusetts:** English Language Arts Curriculum Framework, June 2001. (see General Standard 8: Understanding a Text, 8.30; General Standard 11: Theme, 11.5, 11.6, 11.7)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Locate and Recall")

Reading 5. Determine when, where, and why events unfold in the text, and explain how they relate to one another.

College Readiness

- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #11, #14, #21, #24).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Informational Text 6. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10.)
- *Florida American Diploma Project Survey Results.* (see row 20. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Sequential, Comparative, and Cause-Effect Relationships")
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see points 1 and 2, page 12; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.1.2.b)
2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.1)
3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Reading bullets 3 and 10; Language Development bullet 2, dash 2)
4. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 4.2.1.b, Higher Level)
5. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.6, Grade 12 Reading & Literature Studies)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.a; 2.2.k)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 293, Reading Proficiency Level 3)(PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris, France: Organization for Economic Cooperation and Development. (pg. 115, "Developing an Interpretation")

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2009). *Reading Framework for the 2009 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Proficient – Literary bullet 2)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.A.4)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools.* (see 3.6, Reading Comprehension Grades 9-10)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 13: Nonfiction, 13.25, 13.27)

Reading 6. Analyze the traits, motivations, and thoughts of individuals in fiction and nonfiction based on how they are described, what they say and do, and how they interact.

College Readiness

- ACT (2008) *College Readiness Standards.* Iowa City IA (see p. 21: Sequential, Comparative, and Cause-Effect Relationships)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.1.2.d; 30.2.3.1.c; 20/30.2.3.2.d; 10/20/30.5.1.1.c)
    2. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 1, Key Knowledge 1)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.2.d; 8.2.d)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, H8– in 9 of 12 states analyzed)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.A.4)
- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see Proficient bullets 1 and 3 and Advanced bullet 3- Literary, see "Integrate and Interpret")
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools* (see Reading 3.3, 3.4, grades 9-10)

Reading 7. Determine what is meant by words and phrases in context, including connotative meanings and figurative language.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #6, pgs. 102-103)
- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional*

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Practices. New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #8 "Determining the meaning of unfamiliar words from context," skill #18 "Understanding figurative language…")

- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted to clarify which skills are most important to post-secondary instructors, see skill #7, skill #19).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (See Language 4. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

- ACT (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Meaning of Words")
- ACT (2009) See ACT WorkKeys "Reading for Information" Level 5 requirements (Level 5 is workplace training and college ready).
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see pg. 11, point d; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 20.2.1.2.f)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see B6; B13)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.1)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (Listening, bullet 8; Reading, bullets 1 and 12)
    5. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12, see 3.1-3.3, Reading and Literature Studies)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 2, Outcome 1, Key Knowledge 4)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 7.d)

Illustrative Alignment with State and Other Standards

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Reading Competencies, Comprehension and Retention bullet 15; Listening bullet 3)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.B.3)
- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Vocabulary Assessment on the 2009 Reading Assessment," see pg. 47 "Preliminary Achievment Levels: Vocabulary")
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (General Standard 4: Vocabulary and Concept Development, 4.23)

Reading 8. Analyze how specific word choices shape the meaning and tone of the text.

College Readiness

- *Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices. New York, NY: College Entrance Examination Board* (see pg. 7- skills rated by importance to post-secondary instructors- skill #14: "Understanding words that have multiple definitions," skill #17: "Distinguishing between connotative and denotative meanings of words," skill #20: "Identifying the tone of the the text.")
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #7, #10, and #19).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada**: English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.1.2.f; 20.2.1.2.e; 30.2.2.2.b and c)
    2. **British Columbia, Canada**: *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B13)
    3. **Finland**: *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.1; AI 5.CC.3)
    4. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 4.3.1.a; 4.1.1.h)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

5. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) Outcome 4; C-4, 4.1, 4.2, 4.3, HSC; C-4, 4.1, 4.2, Preliminary and C-7.1, Preliminary)
6. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.3, Grade 12 Reading and Literature)
7. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 3, Outcome 2, Key Knowledge 1)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.j; 2.2.m)
2. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 6.b)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 289, example PISA item "Graffiti") (PISA 2006, Vol. 1 full PDF).

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, A6- in 11 of 12 states analyzed)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.C.3)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California:** *English-Language Arts Content Standards for California Public Schools* (see 2.2 Reading Comprehension Grades 11-12; 3.3 Literary Response and Analysis Grades 11-12, 2.2.d Writing Applications Grades 11-12)
2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see 14.6; and General Standard 15: Style and Language, 15.7, 15.10)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see Proficient - Literary bullet 4, see "Critique and Evaluate")

Reading 9. Analyze how the text's organizational structure presents the argument, explanation, or narrative.

College Readiness

- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).
- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional*

Practices. New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #3 "Understanding organizational strategies such as introduction, supporting examples, summary")

- ACT. (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #6, #10, #12).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada**: English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.2.1.a; 30.2.2.1.c)
    2. **British Columbia, Canada**: *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B12)
    3. **Finland**: *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.1)
    4. **Hong Kong**: *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Reading, bullet 10)
    5. **Ireland**: *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 4.2.1.b; 4.4.1.c; 4.1.1.h; 5.5.b, Ordinary Level; 5.4.c, Higher Level)
    6. **New South Wales, Australia**: *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see C-4, 4.1, 4.2)
    7. **Ontario, Canada**: *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.6, Grade 12 Reading and Literature)
    8. **Victoria, Australia**: *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 4, Outcome 2, Key Knowledge 1 and Skill 1; Unit 1, Outcome 1, Key Skills 1 and 4; Unit 1, Outcome 2, Key Knowledge 1 and 2; Unit 2, Outcome 1, Key Knowledge 2 and 4 and Skill 1; Unit 3, Outcome 1, Key Knowledge 2 and Skill 1; Unit 2, Outcome 3, Key Knowledge 2)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England**: *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.k)
    2. **Singapore**: *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 6.b, 7.c)

- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills*. Paris, France: Organization for Economic Cooperation and Development. (pg. 116, "Reflecting on and Evaluating the Form of a Text")
- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (See pg. 289, example PISA item "Graffiti") (PISA

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

2006, Vol. 1 full PDF)

Illustrative Alignment with State and Other Standards

- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.C.3)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools* (see Reading 2.2, grades 11-12)
    2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 13: Nonfiction 13.25, 13.27)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Critique and Evaluate")

Reading 10. Analyze how specific details and larger portions of the text contribute to the meaning of the text.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #4, pgs. 98-99)
- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #6 "Identifying the purpose of a portion of the text")
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #10, #12, #16).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Informational Text 2. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 9. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Career Readiness

- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2 "Main Ideas and Supporting Details")

Illustrative International Benchmarks

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.2.1.2.b; 10/20/30.2.3.2.f)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.1)
    3. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.6, Grade 12 Reading & Literature Studies)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 1.4.a)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 8.1.c)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 293, Reading Proficiency Level 3) (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills. Paris, France: Organization for Economic Cooperation and Development.* (see pgs. 112-115, esp. pg.114 "Retrieving Information," and "Forming a Broad General Understanding")

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, F2- in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Reading Competencies, Comprehension and Retention bullet 6; Reading Competencies, Depth of Understanding bullet 4)
- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Locate and Recall", see "Integrate and Interpret")
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools.* (see 2.2.a-e, Writing Applications Grades 11-12)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 8: Understanding a Text, 8.33, 8.34, General Standard 15: Style and Language, 15.8)

Reading 11. Synthesize data, diagrams, maps, and other visual elements with words in the text to further comprehension.

College Readiness

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #2, pgs. 92-93; sample post-secondary assignment #3, pgs. 94-97)
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Informational Text 5. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see Row 28. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (Workplace Tasks #1-4, pgs. 74-81.)
- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (See point 2, page 12; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 3 "Data Representation and Statistical Thinking"- WorkKeys Column, Skill 3)
- *Hawai'i Career Ready Study*. (2007). Commissioned by the Hawai'i P-20 Initiative. (see sample task "Build wall frame and building ramp," Construction/Carpenter; sample task "Draft memo to all employees," Hotel/Guest Services Manager; see also F5 for the occupational tasks for which this skill is important.)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada**: *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B12)
    2. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Numeracy Skills, Senior Secondary, bullet 2 and 1 and 2)
    3. **Ontario, Canada**: *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.1, Grade 12 Reading and Literature)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore**: *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 7.a)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (see pg. 290, example PISA item "Lake Chad," and pg. 288 example PISA item "Labour") (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris,

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

France: Organization for Economic Cooperation and Development. (pgs. 110-111, "Non-Continuous Texts")

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, F5- in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Reading Competencies bullet 1)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.F.1 and I.F.2)
- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Procedural Texts and Documents", see "Integrate and Interpret")
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools* (see 2.1, Reading Comprehension Grades 9-10)

Reading 12. Extract key information efficiently in print and online using text features and search techniques.

College Readiness

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Research 2. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see Row 10. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 10/20/30.3.2.1.b, 10/20/30.2.1.4.a)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes*, 2007 (Grade 12) (see B6)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.4)
- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.a, 8.1.b)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Illustrative Alignment with State and Other Standards

- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools* (see 2.1, Reading Comprehension Grades 9-10)

Reading 13. Ascertain the origin, credibility, and accuracy of print and online sources.

College Readiness

- ACT. (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #5).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Research 3. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results*. (see row 18. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts*. Washington, DC: Achieve, Inc. (see sample Workplace Task #5, see sample Workplace Task #6, pg. 82-85)
- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see point 4 on pg. 13; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30.3.2.2.a, 10/20/30.3.2.2.c, 10/20/30.3.2.2.d)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.4)
    3. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.5, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.f)

2. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.f)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, E4- in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Writing Competencies – Style/Expression bullet 4 and Technological Competencies bullet 7)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see III.B.5 and III.B.7*)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools* (see 2.3, Reading Comprehension, Grades 11-12, 2.4, Writing Applications Grades 11-12)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see "Multiple Texts")

Reading 14. Evaluate the reasoning and rhetoric that support an argument or explanation, including assessing whether the evidence provided is relevant and sufficient.

College Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample post-secondary assignment #5, pgs. 100-101)
- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #5 "Distinguish fact from opinion," skill #10 "Identifying logical flaws or discrepancies in an author's argument)
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #5, #8, #9, #12, #17, #18, #20).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Logic 4. Survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *AP European and World History Course Descriptions* (2009), New York, NY: College Board (see pgs. 21-24 in AP European History for document-based question expectations). AP World and U.S. History also have these expectations.

Career Readiness

- Achieve, Inc. (2004). *The American Diploma Project, Ready or Not: Creating a High School Diploma that Counts.* Washington, DC: Achieve, Inc. (see sample workplace task #6, pg. 84-85)
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see point 4 on pg. 13 and point 2 on pg. 18; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada**: English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.3.2.2.d, 10/20/30/3.2.2.c)
    2. **British Columbia, Canada**: *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B9)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 4.CC.1 and 3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Reading bullets 4, 6, 7 and 13; Critical Thinking bullets 1 and 5)
    5. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 4.2.1.a-c)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 2, Outcome 3, Key Knowledge 1 and Skills 1 and 2; Unit 3, Outcome 2, Key Knowledge 2)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 1.4.c and 2.2.f)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.e, 7.c)

- Organization for Economic Cooperation and Development. (2006). *PISA 2006: Science Competencies for Tomorrow's World, Vol. 1* (See pg. 289, example PISA item "Graffiti") (PISA 2006, Vol. 1 full PDF)
- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris, France: Organization for Economic Cooperation and Development. (pg. 115, "Reflecting on and Evaluating the Content of a Text")

Illustrative Alignment with State and Other Standards

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see pg. 17, E4– in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Fostering Habits of Mind Essential for Success bullet 5)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see III.B.7*)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools* (see Reading 2.8, grades 9-10; Reading 2.6, grades 11-12)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see 8.31 and 8.34, and 13.24, 13.26; and General Standard 13: Nonfiction)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see Proficient bullet 5 and Advanced bullets 1, 3 and 5 – Informational, see "Critique and Evaluate")

Reading 15. Analyze how two or more texts with different styles, points of view, or arguments address similar topics or themes.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Entrance Examination Board (see pg. 7- skills rated by importance to post-secondary instructors- skill #19 "Comparing and contrasting two texts")
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #25).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).
- *AP European and World History Course Descriptions* (2009), New York, NY: College board (see pgs. 21-24 in AP European History for document-based question expectations). AP World and U.S. History also have these expectations.
- *Florida American Diploma Project Survey Results.* (see row 23. Survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 5.5.d, Ordinary; 4.4.1.f and 5.4.d, Higher)

2. **New South Wales, Australia:** *English Stage 6 Syllabus,* 1999 (Grades 11-12) (see Outcome 2; C-2, 2.1, 2.2, 2.3, Preliminary; C-1.1, C-2, 2.1, 2.2, 2.3, HSC)
3. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.6, Grade 12 Oral Communication)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.m and 2.2.n, 1.4.b)

- Organization for Economic Cooperation and Development. (2003). *The PISA 2003 Assessment Framework: Mathematics, Reading, Science and Problem Solving Knowledge and Skills.* Paris, France: Organization for Economic Cooperation and Development. (pg. 115, "Developing an Interpretation")

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Making the Reading/Writing Connection bullet 4)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see I.C.5)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California:** *English-Language Arts Content Standards for California Public Schools* (see 3.5, Reading Comprehension grades 9-10, 2.4.b Writing Applications Grades 11-12)
2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see 10.5, 11.7, 15.10)

- U.S. Dept. of Education. (2009). *Reading Framework for the National Assessment of Educational Progress 2009.* Washington, DC: National Assessment Governing Board. (see Advanced - Literary bullet 4, see "Multiple Texts", see"Integrate and Interpret")

Reading 16. Draw upon relevant prior knowledge to enhance comprehension, and note when the text expands on or challenges that knowledge.

College Readiness

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 10/20/30.2.1.3.a , 20.2.1.3.a, 30.2.1.3.b, 30.3.2.3.a, 10/20/30.2.1.1.d)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes,* 2007 (Grade 12) (see B5)
3. **Ontario, Canada:** *The Ontario Curriculum,* English, 2007 (see 1.2 and 1.5 Grade 12 Reading & Literature Studies)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 7.e, 8.1.d and 8.2.e)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Making the Reading/Writing Connection bullet 3)

Reading 17. Apply knowledge and concepts gained through reading to build a more coherent understanding of a subject, inform reading of additional texts, and to solve problems.

College Readiness

- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pgs. 51-54, and sample exam expectations for literature beginning on 56).
- *AP European and World History Course Descriptions* (2009), New York, NY: College board (see pgs. 21-24 in AP European History for document-based question expectations). AP World and U.S. History also have these expectations.
- ACT. (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 44-45, these data have been re-sorted to clarify which skills are most important to post-secondary instructors, see skill #9, #22, #23, #25).

Career Readiness

- ACT. (2006). *Ready for College and Ready for Work: Same or Different?* Iowa City, IA: ACT. (pgs. 3-5, see Table 2, "Sequential, Comparative, and Cause-Effect Relationships," WorkKeys Column, Points 1 and 2)
- ACT (2009) See ACT WorkKeys "Reading for Information" Level 5 requirements (Level 5 is workplace training and college ready).
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (See point 1, page 12; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.6, Grade 12 Oral Communication)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.e)
2. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.2.f)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. (see pg. 17, E8– in 10 of 12 states analyzed)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California:** *English-Language Arts Content Standards for California Public Schools* (2.3, Reading Comprehension Grades 11-12)

Reading 18. Demonstrate facility with the specific reading demands of texts drawn from different disciplines, including history, literature, science, and mathematics.

Disciplinary Literacy Research

The following are a few seminal works of research on disciplinary literacy, which is at the heart of this standard. The sources below cannot be categorized as college or career readiness materials or evidence from a set of standards. Rather, it is general research that provides insight into the field of disciplinary literacy.

- Carnegie Council on Advancing Adolescent Literacy. (2010). *Time to act: An agenda for advancing adolescent literacy for college and career success*. New York, NY: Carnegie Corporation of New York.
- Fang, Z., & Schleppegrell, M. J. (2008). *Reading in secondary content areas.* Ann Arbor: University of Michigan Press.
- Lee, C.D., Spratley, A. (2010). *Reading in the disciplines: The challenges of adolescent literacy.* New York, NY: Carnegie Corporation of New York.
- Moje, E. B., Young, J. P., Readence, J. E., & Moore, D. W. (2000). Reinventing adolescent literacy for new times: Perennial and millennial issues. *Journal of Adolescent and Adult Literacy, 43*, 400–410.
- Schleppegrell, M. J. (2004). *The language of schooling: A functional linguistics perspective.* Mahwah, NJ: Lawrence Erlbaum Associates.
- Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content-area literacy. *Harvard Educational Review, 78,* 40–59.

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Writing Evidence

Writing 1. Establish and refine a topic or thesis that addresses the specific task and audience.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #12, #37).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #15, #23).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Research 1 and Writing 3; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results*. (see rows 5 and 12; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see point *b* on pg. 24; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.3.1.1.a and 10/20/30.3.1.1.c)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 5.O.3 and AI 8.CC.3)
    3. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.1 and 1.2, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 4.b)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Illustrative Alignment with State and Other Standards

- *Intersegmental Committee of the Academic Senates (ICAS).* (2002) Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities. (see Writing Competencies, Invention, bullet 4)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.E.1 & III.A.1)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (1.0, Writing Strategies Grades 11-12)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 19: Writing, 19.26, 19.27, 19.30)

Writing 2. Gather the information needed to build an argument, provide an explanation, or address a research question.

College Readiness

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (See Research 2; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 10; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see pgs. 22-25; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30.3.2.1.b)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see C6)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.4 and AI 2.CC.3; AI 5.O.3)
    4. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see C-10.3, HSC)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.3, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following :

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.h)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Making the Reading/Writing Connection, bullet 6)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see III.A.2, III.B)

Writing 3. Sustain focus on a specific topic or argument.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #3, #12).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #1).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30.4.1.3.c and 20.4.1.3.e; 20/30.4.2.1.a; 10/20.4.2.2.d)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 8.O.2)
    3. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 4, Outcome 1, Key Skill 1)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.d-e)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 4.b; 4.e; 5.b)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2007). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guides Level 6 "To Persuade"; "To Explain"; "To Convey Experience")
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.3, Writing Strategies Grades 11-12)
    2. **Massachusetts**, *English Language Arts Curriculum Framework*, June 2001. (see General Standard 19: Writing, 19.26, 19.27, 19.30)

Writing 4. Support and illustrate arguments and explanations with relevant details, examples, and evidence.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #3, #4).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #3).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.4.1.3.e and 20/30.4.1.3.g)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C7; C8)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide, 2007*. (≈Grades 10-11) (see bullet 4, Writing)
    5. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.4 & 1.5, Grade 12 Writing)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language,* 2007 (≈ Grades 11-12) (see Unit 1, Outcome 2, Key Skill 3; Unit 4, Outcome 1, Key Skill 1)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.h)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 4.b-c and 5.c; 9.1.d)

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Proficient Achievement Level, Grade 12, box 3, Holistic Scoring Guides Level 6 "to Persuade"; "To Explain"; "To Convey Experience")
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Writing Competencies, Arrangement, bullet 1; Fostering Habits of Mind Essential for Success, bullet 16)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.E.2 and IV.B.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: English-Language Arts Content Standards for California Public Schools, 1997. (see 1.3, Writing Strategies Grades 11-12)
    2. **Massachusetts**, English Language Arts Curriculum Framework, June 2001. (see General Standard 19: Writing, 19.26, 19.27, 19.30)

Writing 5. Create a logical progression of ideas or events, and convey the relationships among them.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #3, #7, #9, #21, #26).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #4, #9, #12, #17, #19, #22, #29, #30).

Career Readiness

- ACT (2009) See ACT WorkKeys Writing Level 3 requirements (Level 3 is workplace training and college ready).

Illustrative International Benchmarks

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30.3.2.1.d; 20/30.4.2.2.b; 10/20.4.2.2.d-e)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C6; C13)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 5.O.3; AI 8.O.2; AI 8.CC.3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see bullets 1-3 and 8-9, Writing; bullet 2, Senior Secondary)
    5. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see 9.2 Preliminary)
    6. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.4, 2.6, Grade 12 Writing)
    7. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 2, Outcome 2, Key Skill 5)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.c; 2.3.e-f)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (See 4.a-b; 4.e-f; 5.b; 5.g)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up*. (2008). Washington, DC: Achieve. 2008. (see C3 - in 12 of 12 states analyzed)
- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Advanced Achievement Level, Grade 12, box three, Holistic Scoring Guides Level 6 "to Persuade"; "To Explain"; "To Convey Experience")
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Writing Competencies, Arrangement, bullets 3 and 4)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.D.2 and II.D.4, II.F.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (See 1.3, Writing Strategies Grades 11-12)
    2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 19: Writing, 19.26, 19.27, 19.30; General Standard 23: Organizing Ideas in Writing, 23.13, 23.14, 23.15)

Writing 6. Choose words and phrases to express ideas precisely and concisely.

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #5, #27).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #28).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Language 6 and Writing 2; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 20/30.4.2.3.b)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grades 11-12) (see C12)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.1, AI 5.CC.3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see bullet 9, Writing; point 5, Senior Secondary)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.3, Grade 12 Writing)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up*. (2008). Washington, DC: Achieve. 2008. (see C2- in 12 of 12 states analyzed)
- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Advanced Achievement Level, Grade 12, box 5; Holistic Scoring Guides Level 6 "to Persuade"; "To Explain"; "To Convey Experience")
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (Writing Competencies, Style/Expression, bullet 1)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.D.5 & II.E.5)
- A counterpart of this standard appears in the English language arts standards from the following states:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.5, Writing Strategies Grades 11-12)
2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 21: Revising, 21.8, 21.9)

Writing 7. Use varied sentence structures to engage the reader and achieve cohesion between sentences.

College Readiness

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 20/30.4.2.3.c; 20/30.4.2.4.f)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see C12)
    3. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 5.3)
    4. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.4, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.g, 2.3.m)

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2007). *Writing Framework for the 2011 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guides Level 6, bullet 4 "to Persuade"; "To Explain"; "To Convey Experience"; Advanced Achievement Level, Grade 12, box four)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Writing Competencies, Style/Expression, bullet 1)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.D.3)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.1, Written and Oral Language Conventions Grades 11-12)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see 19.26, 19.27)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Writing 8. Develop and maintain a style and tone appropriate to the task, purpose, and audience.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #3, #12, #23, #37).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #15, #20).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Writing 2 and 5; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results*. (see rows 22 and 26; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *Hawai'i Career Ready Study*. (2007). Commissioned by the Hawai'i P-20 Initiative. (see pgs. 36-38 sample task "Draft memo to all employees," Hotel/Guest Services Manager)
- ACT (2009) See ACT WorkKeys Writing Level 3 requirements (Level 3 is workplace training and college ready).

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 20.4.1.1.c; 10/20/30.4.2.3.a and 20.4.2.3.d)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grades 11-12) (see C12)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.CC.1; AI 5.O.3; AI 8.CC.3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (See bullets 9 and 12, Writing)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.2, Grade 12 Writing)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 2, Key Knowledge 4; Unit 3, Outcome 2, Key Knowledge 1)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.b)
    2. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 5.e and 5.g)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see C2 - in 12 of 12 states analyzed)
- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Advanced Achievement Level, Grade 12, box 6; Holistic Scoring Guides Level 6, bullet 4 "to Persuade"; "To Explain"; "To Convey Experience")
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Writing Competencies, Invention, bullet 2)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.E.4-6 and II.D.6*)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.2, 1.5, and 1.9, Writing Strategies Grades 11-12)
    2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 21: Revising, 21.8, 21.9)

Writing 9. Demonstrate command of the conventions of standard written English, including grammar, usage, and mechanics.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #6, #8, #11, #13, #16, #18, #19, #20, #25, #26, #28, #31, #32, #34, #39, #40, #41, #43, #44).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- Conley, D. (2003) *Understanding University Success: English Work Samples.* Eugene, OR: Center for Educational Policy Research.
- ACT (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #2, #5, #6, #7, #8, #10, #11, #14, #16, #18, #20, #21, #24, #25, #26, #28).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Language 1; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 3; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Career Readiness

- *Hawai'i Career Ready Study*. (2007). Commissioned by the Hawai'i P-20 Initiative. (see pgs. 22-24 sample task "Pass entrance exams for apprenticeship," Military/Navy Shipyard Apprenticeship)
- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see top half, pg. 10; pg. 17; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- ACT (2009) See ACT WorkKeys Writing Level 3 requirements (Level 3 is workplace training and college ready).

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 4.2.4.b-g)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grades 11-12) (see C14)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 8.C.4)
    4. **Ireland:** *Leaving Certificate/English Syllabus* for Higher Level and Ordinary Level (≈ Grades 10-11) (see 5.3)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 3.3 and 3.4, Grade 12 Writing)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 1, Key Skill 7)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 1.1.c; 2.3.n-o)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 5.d; 6.c)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up*. (2008). Washington, DC: Achieve. 2008. (see A1 - in 12 of 12 states analyzed)
- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Advanced Achievement Level, Grade 12, box 7; Holistic Scoring Guides Level 6, bullet 4 "to Persuade"; "To Explain"; "To Convey Experience")
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Writing Competencies, Style/Expression, bullet 2)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.A & II.B)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.1 and 1.2, Written and Oral English Language Conventions Grades 11-12)
    2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. see 5.28, 5.30; 21.8; General Standard 22: Standard English Conventions, 22.9, 22.10)

Writing 10. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.

College Readiness

- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- ACT (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #13).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Writing 6; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (See row 21; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see point 4 on pg. 25; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 3.2.1.c; 3.2.1.e)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C14)
    3. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (1.3, Grade 12 Writing)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

4. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 3, Outcome 3, Key Skill 5)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Writing Competencies, "Students will be assigned writing tasks…," bullet 14; Technology Competencies, bullet 8)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.D.7; III.B.4; III.B.6)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (See 1.7, Writing Strategies Grades 9-10)
2. **Massachusetts**, *English Language Arts Curriculum Framework*, June 2001. (see 24.5)

Writing 11. Assess the quality of one's own writing, and, when necessary, strengthen it through revision.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #7, #12, #16, #24, #33, #37).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skill #15).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Writing 4 and 5; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see rows 16 and 22; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 20/30.4.2.1.a-d; 30.4.2.2.a, 20/30.4.2.2.b-c, 10/20.4.2.2.d-e)
2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C7)
3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (AI 2.O.2; AI 2.CC.3; AI 5.O.3; AI 8.CC.3)
4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see bullet 7, Writing; see Senior Secondary, bullet 2)
5. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see C-12.1-12.4, Preliminary)
6. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.7, Grade 12 Writing)
7. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 1, Key Skill 5; Unit 1, Outcomes 2, Key Knowledge 4; Unit 1, Outcome 3, Key Skill 3)

- A counterpart of this standard also appears in the English language arts standards of the following :

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.l; 4.3.e)
2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 5.f)

Illustrative Alignment with State and Other Standards

- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.F)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Writing Competencies, Arrangement, bullet 6 and Style/Expression, bullet 2)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (See 1.9, Writing Strategies Grades 9-12)
2. **Massachusetts**, *English Language Arts Curriculum Framework*, June 2001. (see General Standard 21: Revising, 21.8, 21.9)

Writing 12. Use technology as a tool to produce, edit, and distribute writing.

College Readiness

Career Readiness

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (See Writing 8; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Illustrative International Benchmarks

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Information Technology, Senior Secondary, bullet 4)
    2. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see C-9.1, HSC)
    3. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 3.5-3.6, Grade 12 Writing)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Technology Competencies, bullets 1-2)

Writing 13. Synthesize information from multiple relevant sources, including graphics and quantitative information when appropriate, to provide an accurate picture of that information.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #2, #5, #15, #29).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #3).
- *Florida American Diploma Project Survey Results*. (see row 24; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *Hawai'i Career Ready Study*. (2007). Commissioned by the Hawai'i P-20 Initiative. (See pgs. 18-19 sample task "Review claim letter," Insurance/Claims Agent)
- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see pgs. 22-23; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 30.3.2.3.a)
    2. **British Columbia, Canada:** English Language Arts Integrated Resource Package, Prescribed Learning Outcomes, 2007 (Grade 12) (see C8 and C10)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see bullet 2, Writing; Information Technology Skills, Senior Secondary 1;Study Skills, Senior Secondary, bullet 1)
    4. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see 10.1, Preliminary; Outcome 7, HSC)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.3, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.2.e)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.b)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see F7 - in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Fostering Habits of Mind Essential for Success, bullet 4; Writing Competencies, "Students will be assigned writing tasks…," bullet 5)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.E.8*, and III.B.6)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 1.6 and 1.8, Writing Strategies Grades 11-12; 2.4.b-d, Writing Applications Grades 11-12)

Writing 14. Convey complex information clearly and coherently to the audience through purposeful selection and organization of content.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices.* New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #5, #12, #15, #29, #37).

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- ACT (2006). *ACT National Curriculum Survey 2005-2006.* Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #3, #4, #12, #15).

Career Readiness

- ACT (2009) See ACT WorkKeys Writing Level 3 requirements (Level 3 is workplace training and college ready).
- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see point 2 on pg. 19; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20/30.3.2.1.d)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C4)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see "Work with others", dash 1, Language Development)
    4. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 5.5.e, Ordinary Level; 5.4.e, Higher Level)
    5. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see Outcome 7, HSC; 10.3, Preliminary)
    6. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.4 & 2.1, Grade 12 Writing)

- A counterpart of this standard also appears in the English language arts standards of the following:

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 1.1.a; 2.3.c)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.b)

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guide for "To Explain" Level 6)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Writing Competencies, Invention, bullet 2; Arrangement, bullets 3 & 4)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.E.8*, II.D.2, II.D.4)
- A counterpart of this standard appears in the English language arts standards from the following states:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 2.3 and 2.6.a, Writing Applications Grades 9-10)
2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 19: Writing, 19.26, 19.30)

Writing 15. Demonstrate understanding of content by reporting facts accurately and anticipating reader misconceptions.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #2, #5, #12, #15, #29, #37).
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #3, #15).

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

  1.**British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see C2; C4)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Writing Competencies, "Students will be assigned writing tasks…," bullets 6 & 7)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.E.8*)
- A counterpart of this standard appears in the English language arts standards from the following states:

  1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 2.3 & 2.6.d, Writing Applications Grades 9-10)

Writing 16. Establish a substantive claim, distinguishing it from alternate or opposing claims.

College Readiness

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #4, #5, #10, #12, #14, #29).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #23).
- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis*. (see Logic 9; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results*. (see row 7; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see point *f3* on pg. 21; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada:** English Language Arts Integrated Resource Package, Prescribed Learning Outcomes, 2007 (Grade 12) (see A2, C2, C4)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 4.CC.3-5)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see bullets 3 and 11, Writing, see Communication Skills, Senior Secondary, bullet 2)
    4. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 4.2.2.a-b; 5.4.e, Higher Level)
    5. **New South Wales, Australia:** *English Stage 6 Syllabus,* 1999 (Grades 11-12) (see 6.2, HSC)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language,* 2007 (≈ Grades 11-12) (see Unit 3, Outcome 3, Key Knowledge 4 & Skill 3)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up*. (2008). Washington, DC: Achieve. 2008. (see E9 - in 11 of 12 states analyzed)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guide for "To Persuade" Level 6)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.E.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 2.4, Writing Applications Grades 9-10)
    2. **Massachusetts**, *English Language Arts Curriculum Framework*, June 2001. (see 19.30)

Writing 17. Link claims and evidence with clear reasons, and ensure that the evidence is relevant and sufficient to support the claims.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #4, #5, #10, #14, #29, #30).
- *AP English Language and Composition and English Literature and Composition Course Description* (2008), New York, NY: College Board (see pg. 11 for course expectations).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- Conley, D. (2003) *Understanding University Success: English Work Samples*. Eugene, OR: Center for Educational Policy Research.
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #1, #3, #4, #12, #15).

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (see f3, pg. 21; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 20.4.1.3.f; 20/30.4.2.1.c)
    2. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see 6.2, HSC; 10.2 and 10.3, HSC)
    3. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.4 and 1.5, Grade 12 Writing)

4. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 2, Key Skill 3; Unit 4, Outcome 2, Key Skills 2-3; Unit 3, Outcome 3, Key Knowledge 4 & Skill 3)

- A counterpart of this standard also appears in the English language arts standards of the following:

1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.3.h-i)
2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.1.d)

Illustrative Alignment with State and Other Standards

- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress*. Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guide for "To Persuade" Level 6)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities*. (see Fostering Habits of Mind Essential for Success, bullet 16)
- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success*. Eugene, OR: Center for Educational Policy Research. (see II.E.2; II.E.3; IV.B.2)
- A counterpart of this standard appears in the English language arts standards from the following states:

1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (2.2.c and 2.4.a-e, Writing Applications Grades 11-12; 1.3, Writing Strategies Grades 11-12)
2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 19: Writing, 19.26, 19.30)

Writing 18. Acknowledge competing arguments or information, defending or qualifying the initial claim as appropriate.

College Readiness

- Milewski, G.B., Johnsen, D., Glazer, N., & Kubota, M. (2005). *A Survey to Evaluate the Alignment of the New SAT® Writing and Critical Reading Sections to Curricula and Instructional Practices*. New York, NY: College Board (see pgs. 10 and 12, these data have been sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #4, #5, #10, #12, #14, #29).
- *AP European History Course Description* (2009), New York, NY: College board (see pp. 21-24 for document-based question expectations). AP World and US History also have these expectations.
- ACT (2006). *ACT National Curriculum Survey 2005-2006*. Iowa City, IA: ACT. (pgs. 39-40, these data have been re-sorted by importance to clarify which skills are most important to post-secondary instructors, see skills #15).

Career Readiness

Illustrative International Benchmarks

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada:** *English Language Arts Integrated Resource Package*, Prescribed Learning Outcomes, 2007 (Grade 12) (see B9)
    2. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see "Plan…", dash five, Language Development)

Illustrative Alignment with State and Other Standards

- Conley, D.T. (2003) *Understanding University Success: A Report from Standards for Success.* Eugene, OR: Center for Educational Policy Research. (see II.E.4)
- U.S. Dept. of Education. (2011). *Writing Framework for the 2011 National Assessment of Educational Progress.* Washington, DC: National Assessment Governing Board. (see Holistic Scoring Guide for "To Persuade"Level 6)

- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools*, 1997. (see 2.4.d, Writing Applications Grades 9-10)
    2. **Massachusetts**, *English Language Arts Curriculum Framework,* June 2001. (see 19.30)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Speaking & Listening Evidence

Speaking 1. Select and use a format, organization, and style appropriate to the topic, purpose, and audience.

College Readiness

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (See pg. 19; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- Qualifications and Curriculum Authority. (2007). *Functional Skills and Standards.* (see pg. 12, Speaking and Listening Level 2, bullet 3)
- *Missouri Career Prep Certificate Program Planning Guide,* Missouri Department of Elementary and Secondary Education. (see pg. A5, Communication: Written, Verbal, and Listening, Knowledge skill 2)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 10.4.1.4.b, 10/20/30.4.1.4.c)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes*, 2007 (Grade 12) (see A6, A12)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Speaking, bullets 1, 4, and 5)
    4. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.1 - 2.6, Grade 12 Oral Communication)
    5. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 3, Outcome 1, Key Skills 6-7)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.1.a-c)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 3.a-f, 4.a-f)

Illustrative Alignment with State and Other Standards

- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 3: Oral Presentation, 3.17)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

2. **Texas:** *Texas College Readiness Standards*, (2008). (see pg. 4-5, Speaking, A.1-2)

Speaking 2. Present information, findings, and supporting evidence clearly and concisely.

College Readiness

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (See pg. 19; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- Casner-Lotto, J., Rosenblum, E., and Wright, M., *The Ill-Prepared Workforce*. (2009). The Conference Board. (see pg. 22, Oral Communications)
- Qualifications and Curriculum Authority. (2007). *Functional Skills and Standards.* (see pg. 12, Speaking and Listening Level 2, bullet 2)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes*, 2007 (Grade 12) (see A8, A9)
    2. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 4.O.2)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Speaking, bullets 1-2)
    4. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.3, Grade 12 Oral Communication)
    5. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 2, Outcome 3, Key Knowledge, bullet 5)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (2.1.b)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 4.b and 4.e)

Illustrative Alignment with State and Other Standards

- A counterpart of this standard appears in the English language arts standards from the following states:

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 2, 2.5)
2. **Texas:** *Texas College Readiness Standards*, (2008). (see pg. 4-5, Speaking, B.3)

Speaking 3. Make strategic use of multimedia elements and visual displays of data to gain audience attention and enhance understanding.

College Readiness

Career Readiness

- *Missouri Career Prep Certificate Program Planning Guide,* Missouri Department of Elementary and Secondary Education. (see pg. A5, Communication: Written, Verbal, and Listening, Performance skill 4)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10.4.1.4.b, 20.4.1.4.b and 10/20/30.4.1.4.c)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see A6)
    3. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Information Technology, Senior Secondary, bullets 3-5)
    4. **New South Wales, Australia:** *English Stage 6 Syllabus*, 1999 (Grades 11-12) (see C-5, 5.3, Preliminary)
    5. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 2.7, Grade 12 Oral Communication; 3.4, Grade 12 Media Studies)
    6. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 1, Outcome 2, Key Skills 1 and 4; Unit 2, Outcome 3, Key Knowledge 5 and Key Skill 3)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 4.a, 4.c)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see G4, in 12 of 12 states analyzed)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California:** *English-Language Arts Content Standards for California Public Schools.* (see 2.6, Grades 11-12; 2.4, Grades 11-12)
    2. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 27: Media Production, 27.6)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

Speaking 4. Demonstrate command of formal Standard English when appropriate to task and audience.

College Readiness

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (see Language 1; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)
- *Florida American Diploma Project Survey Results.* (see row 3; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (see pgs. 16-17, 19); data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see A12)
    2. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Speaking, "Present Information…" bullet 4)
    3. **Victoria, Australia***: Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 3, Outcome 1, Key Skill 6)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.1.a)
    2. **Singapore:** *English Language Syllabus 2001,* Learning Outcomes for O-Levels (≈ Grades 10-11) (see 3.e)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see A1, in 12 of 12 states analyzed)

Speaking 5. Listen to complex information, and discern the main ideas, the significant details, and the relationships among them.

College Readiness

- *Virginia Postsecondary Outreach Campaign and Data Collection, Essential English Skills Analysis.* (See Communication 2 and 3; survey of multi-disciplinary faculty teams at 30 higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *Florida American Diploma Project Survey Results.* (See rows 11 and 27; survey of faculty members at 18 public higher education institutions; included if average rating is at least 7.5 on a scale of 10)

Career Readiness

- *The American Diploma Project Workplace Study.* (2002). Washington, DC: National Alliance of Business. (See point 1, pg. 18; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)
- *Missouri Career Prep Certificate Program Planning Guide,* Missouri Department of Elementary and Secondary Education. (see pg. A5, Communication: Written, Verbal, and Listening, Knowledge skill 3 and Performance skill 5)
- Qualifications and Curriculum Authority. (2007). *Functional Skills and Standards.* (see pg. 12, Speaking and Listening Level 2, bullet 1)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** English Language Arts Curriculum Outcomes, 2003 (Grades 10-12) (see 10/20.2.1.2.b)
    2. **British Columbia, Canada:** English Language Arts Integrated Resource Package, Prescribed Learning Outcomes, 2007 (Grade 12) (see A3, A7, A8)
    3. **Finland**: *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 1.CC.3 and 1.CC.5)
    4. **Hong Kong**: *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Listening, bullets 1 and 2)
    5. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 4.1.1.a, 4.1.1.c)
    6. **Ontario, Canada:** *The Ontario Curriculum, English*, 2007 (Grades 11-12) (see 1.4-1.6, Grade 12 Oral Communication)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** English Programme of Study for Key stage 4, 2005 (≈ Grades 10-11) (see 2.1.f)
    2. **Singapore:** English Language Syllabus 2001, Learning Outcomes for O-Levels (≈ Grades 10-11) (See 2.c, 2.e, 8.3.a-c)

Illustrative Alignment with State and Other Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see B4, in 11 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (Listening, bullet 2)
- A counterpart of this standard appears in the English language arts standards from the following states: S

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

1. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 2, 2.5)
2. **Texas:** *Texas College Readiness Standards*, (2008). (see pg. 4-5, Listening, A.2-3, B.1-3)

Speaking 6. Follow the progression of the speaker's message, and evaluate the speaker's point of view, reasoning, and use of evidence and rhetoric.

College Readiness

Career Readiness

- *The American Diploma Project Workplace Study*. (2002). Washington, DC: National Alliance of Business. (See point 2, pg. 18; data gathered through employer feedback from 21 organizations in eight states representing over 10 industries)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Alberta, Canada:** *English Language Arts Curriculum Outcomes*, 2003 (Grades 10-12) (see 30.2.2.2.f, 30.3.2.2.a-d)
    2. **British Columbia, Canada:** *English Language Arts Integrated Resource Package, Prescribed Learning Outcomes,* 2007 (Grade 12) (see A9)
    3. **Finland:** *National Core Curriculum for Upper Secondary Schools* for Mother Tongue and Literature, Finnish as the mother tongue, 2003 (≈ Grades 10-12) (see AI 2.O.1, AI 7.O.3)
    4. **Hong Kong:** *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Listening, bullets 6-7; Critical Thinking Skills, number 2 and bullets 1-4)
    5. **Ireland:** *Leaving Certificate/English Syllabus for Higher Level and Ordinary Level* (≈ Grades 10-11) (see 4.1.1.d-f, 4.2.1.a-g, 4.3.1.a)
    6. **Ontario, Canada:** *The Ontario Curriculum, English,* 2007 (Grades 11-12) (see 1.7 & 1.8, Grade 12 Oral Communication)
    7. **Victoria, Australia:** *Victorian Certificate of Education Study Design: English/English as a Second Language*, 2007 (≈ Grades 11-12) (see Unit 2, Outcome 3, Key Skill bullets 1 and 2)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study* for Key stage 4, 2005 (≈ Grades 10-11) (see 1.4.c-d, 2.1.g)
    2. **Singapore:** *English Language Syllabus 2001*, Learning Outcomes for O-Levels (≈ Grades 10-11) (see 9.2.c, 9.3.b)

Illustrative Alignment with State and Other Standards

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

- *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up.* (2008). Washington, DC: Achieve. 2008. (see E4, in 12 of 12 states analyzed)
- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Fostering Habits of Mind Essential for Success, bullet 5; Listening and Speaking, Listening, bullet 2)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **California**: *English-Language Arts Content Standards for California Public Schools.* (see 1.12, 1.13, Grades 9-10)
    2. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see 3.15)
    3. **Texas:** *Texas College Readiness Standards*, (2008). (see pg. 4-5, Listening, A.1-3)

Speaking 7. Ask relevant questions to clarify points and challenge ideas.

College Readiness

Career Readiness

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **British Columbia, Canada:** *English Language Arts Integrated Resource Package,* Prescribed Learning Outcomes, 2007 (Grade 12) (see A7)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England:** *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.1.e)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Fostering Habits of Mind Essential for Success, bullet 7; Listening and Speaking, Speaking, bullets 1 and 3)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **Massachusetts:** *English Language Arts Curriculum Framework*, June 2001. (see General Standard 2: Questioning, Listening, and Contributing)

Speaking 8. Respond constructively to advance a discussion and build on the input of others.

Evidence for Individual Reading, Writing, and Speaking and Listening Standards

College Readiness

Career Readiness

- *Missouri Career Prep Certificate Program Planning Guide,* Missouri Department of Elementary and Secondary Education. (see pg. A5, Communication: Written, Verbal, and Listening-Performance skill 2)
- Qualifications and Curriculum Authority. (2007). *Functional Skills and Standards.* (see pg. 12, Speaking and Listening Level 2, bullets 1 and 4)

Illustrative International Benchmarks

- A counterpart of this standard appears in the English language arts standards and learning outcomes from the following high performing countries, as defined by their top 10 ranking on the 2006 Programme of International Student Assessment (PISA) Reading Scale:

    1. **Hong Kong**: *English Language Curriculum and Assessment Guide*, 2007. (≈Grades 10-11) (see Speaking, "Participate Effectively…", bullets 3-4 and 6)

- A counterpart of this standard also appears in the English language arts standards of the following :

    1. **England**: *English Programme of Study for Key stage 4*, 2005 (≈ Grades 10-11) (see 2.1.d-e)

Illustrative Alignment with State and Other Standards

- Intersegmental Committee of the Academic Senates (ICAS). (2002) *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities.* (see Fostering Habits of Mind Essential for Success, bullet 7; Listening and Speaking, Speaking, bullets 1-4)
- A counterpart of this standard appears in the English language arts standards from the following states:

    1. **Massachusetts**: *English Language Arts Curriculum Framework*, June 2001. (see General Standard 1: Discussion; General Standard 2: Questioning, Listening, and Contributing)
    2. **Texas:** *Texas College Readiness Standards*, (2008). (see pg. 4-5, Listening, B.1)

Introduction

The *College and Career Readiness Standards for Mathematics* consist of three interconnected parts: a Standard for Mathematical Practice, ten Standards for Mathematical Content, and a set of Example Tasks.

The Standard for Mathematical Practice has six Core Practices that describe the way proficient students approach mathematics. Proficient students attend to precision, construct viable arguments, make sense of complex problems and persevere in solving them, look for hidden structure, note regularity in repeated reasoning, and use technology intelligently. This approach to mathematics is an essential part of being ready for college and career.

The Standards for Mathematical Content form the backbone of this document. Each of these ten standards consists of Core Concepts, Core Skills, and a description of the student's Coherent Understanding. Students who encounter the subject with a focus on coherence will be better able to learn more mathematics at a deeper level and be better able to access and apply the mathematics they know. The ten Standards for Mathematical Content pull together topics previously studied and look ahead toward topics in further coursework and training programs.

The Standards for Mathematical Content are designed to draw greater attention to powerful organizing principles in mathematics, such as functional relationships or the laws of arithmetic. They also allow important distinctions to be made more clearly, such as that between Expressions and Equations. And they surface the deep connections that often underlie mathematical coherence, such as the blending of algebra with geometry represented by Coordinates. These ten are not categories or buckets of topics to cover; they are standards. They describe the coherence students need and deserve as they go forward to their mathematical futures.

The third component of the *College and Career Readiness Standards for Mathematics* is a Web-based collection of Example Tasks that exemplifies the variety of performances required. High standards demand that students *use* their knowledge, skills and good practices to solve problems from a variety of contexts, both within mathematics and from the world outside. Example Tasks exemplify the range and variety of use that is expected. Teachers and designers of curriculum and assessment will find in the collection of examples a guide to what these standards mean. Over time, the collection of tasks will grow.

Together, these three components establish an evidence-based standard for college and career readiness. The *College and Career Readiness Standards for Mathematics* have been created with attention to the expectations of the highest achieving countries. They have focus and depth, emphasizing the understanding of and connections among topics that are most important for success regardless of a student's pathway after reaching these standards.

A primary goal of developing these standards is to enable students to achieve *mathematical proficiency* (see sidebar). Students are expected to understand the knowledge described in the Core Concepts and in the Coherent Understandings at a depth that enables them to reason with that knowledge—to analyze, interpret and evaluate mathematical problems, make deductions, and justify results. The Core Skills are meant to be used strategically and adaptively to solve problems. Students' knowledge and skills come to life and take their value when melded with the ways they approach mathematics—as described by the Core Practices.

The specific verbs used to describe concepts and skills in these standards are not meant to limit or indicate levels of any taxonomy. Although using verbs to indicate levels of depth has been a common practice in this country's standards writing, high performing nations do not use verbs in this way. They describe depth and practices first in separate sections of their syllabi. We have adopted the high performing countries' practice of focusing on a clear statement of what mathematics should be learned when writing standards for knowledge and skills.

Instruction, curriculum and assessment designed to achieve these standards should range over all strands of proficiency in *Adding It Up*, all depths of knowledge in Norman L. Webb's Depth of Knowledge taxonomy, all levels of Bloom's Taxonomy, and all levels of cognitive demand. In the Core Skills and Core Practices we have sometimes used terms like "explore" to indicate a lighter treatment with a goal of awareness and experience rather than proficiency. We have used Example Tasks to show the depth of knowledge and deployment of skills expected.

From *Adding it up: Helping children learn mathematics* (National Research Council, 2001, p. 116):

Recognizing that no term captures completely all aspects of expertise, competence, knowledge, and facility in mathematics, we have chosen mathematical proficiency to capture what we believe is necessary for anyone to learn mathematics successfully. Mathematical proficiency, as we see it, has five components, or strands:

- conceptual understanding—comprehension of mathematical concepts, operations, and relations
- procedural fluency—skill in carrying out procedures flexibly, accurately, efficiently, and appropriately
- strategic competence—ability to formulate, represent, and solve mathematical problems
- adaptive reasoning—capacity for logical thought, reflection, explanation, and justification
- productive disposition—habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy.

These standards are measurable; that is, they are observable and verifiable through the broad spectrum of student performances that may be assessed during classroom observation, school-based examinations and large-scale testing. The *College and Career Readiness Standards for Mathematics* can guide the development of assessment frameworks that distribute the assessment responsibilities across multiple levels of the educational system: state, district, school and teacher.

Students reaching these levels will be prepared for non-remedial college mathematics courses and will be prepared for training programs for career-level jobs; however, the *College and Career Readiness Standards for Mathematics* should not be construed as grade twelve exit standards. Students interested in STEM fields, and those who wish to go beyond for other reasons, will need to reach these standards before their senior year in order to have time to include additional mathematics. A number of pathways for advanced learning are possible and may be integrated throughout the high school experience and beyond.

The Common Core State Standards Initiative

The *College and Career Readiness Standards for Mathematics* will anchor the next phase of the Common Core State Standards Initiative: development of K–12 Mathematics Standards. Those K–12 Standards are in turn expected to guide the development of a next generation of assessments, developed collaboratively by multiple states. The K–12 Mathematics Standards will serve as a guide and tool for aligning instruction, curriculum, assessment, teacher supports, and systems of accountability. To ensure alignment, the Standard for Mathematical Practice, the Standards for Mathematical Content, and the Example Tasks should all be taken into account.

Overview of the Mathematical Practice Standard

Attend to precision.
Construct viable arguments.
Make sense of complex problems and persevere in solving them.
Look for structure.
Look for and express regularity in repeated reasoning.
Make strategic decisions about the use of technological tools.

Overview of the Mathematical Content Standards

Number. Procedural fluency in operations with real numbers and strategic competence in approximation are grounded in an understanding of place value. The rules of arithmetic govern operations on numbers and extend to operations in algebra.

Quantity. A quantity is an attribute of an object or phenomenon that can be specified using a number and a unit, such as 2.7 centimeters, 42 questions or 28 miles per gallon.

Expressions. Expressions use numbers, variables and operations to describe computations. The rules of arithmetic, the use of parentheses and the conventions about order of operations assure that the computation has a well-determined value.

Equations. An equation is a statement that two expressions are equal. Solutions to an equation are the values of the variables in it that make it true.

Functions. Functions model situations where one quantity determines another. Because nature and society are full of dependencies, functions are important tools in the construction of mathematical models.

Modeling. Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

Shape. From only a few axioms, the deductive method of Euclid generates a rich body of theorems about geometric objects, their attributes and relationships.

Coordinates. Applying a coordinate system to Euclidean space connects algebra and geometry, resulting in powerful methods of analysis and problem solving.

Probability. Probability assesses the likelihood of an event in a situation that involves randomness. It quantifies the degree of certainty that an event will happen as a number from 0 through 1.

Statistics. Decisions or predictions are often based on data—numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability in the data.

How Evidence Informed Decisions in Drafting the Standards

The Common Core State Standards Initiative builds on a generation of standards efforts led by states and national organizations. On behalf of the states, we have taken a step toward the next generation of standards that are aligned to college- and career-ready expectations and are internationally benchmarked. These standards are grounded in evidence from many sources that shows that the next generation of standards in mathematics must be focused on deeper, more thorough understanding of more fundamental mathematical ideas and higher mastery of these fewer, more useful skills.

The evidence that supports this new direction comes from a variety of sources. International comparisons show that high performing countries focus on fewer topics and that the U.S. curriculum is "a mile wide and an inch deep." Surveys of college faculty show the need to shift away from high school courses that merely survey advanced topics, toward courses that concentrate on developing an understanding and mastery of ideas and skills that are at the core of advanced mathematics. Reviews of data on student performance show the large majority of U.S. students are not mastering the mile wide list of topics that teachers cover.

The evidence tells us that in high performing countries like Singapore, the gap between what is taught and what is learned is relatively smaller than in Malaysia or the U.S. states. Malaysia's standards are higher than Singapore's, but their performance is much lower. One could interpret the narrower gap in Singapore as evidence that they actually use their standards to manage instruction; that is, Singapore's standards were set within the reach of hard work for their system and their population. Singapore's Ministry of Education flags its webpage with the motto, "Teach Less, Learn More." We accepted the challenge of writing standards that could work that way for U.S. teachers and students: By providing focus and coherence, we could enable more learning to take place at all levels.

However, a set of standards cannot be simplistically "derived" from any body of evidence. It is more accurate to say that we used evidence to inform our decisions. A few examples will illustrate how this was done.

For example, systems of linear equations are covered by all states, yet students perform surprisingly poorly on this topic when assessed by ACT. We determined that systems of linear equations have high coherence value, mathematically; that this topic is included by all high performing nations; and that it has moderately high value to college faculty. Result: We included it in our standards.

A different and more complex pattern of evidence appeared with families of functions. Again we found that students performed poorly on problems related to many advanced functions (trigonometric, logarithmic, quadratic, exponential, and so on). Again we found that a number of states cover them, even though college faculty rated them lower in value. High performing countries include this material, but with different degrees of demand. We decided that we had to carve a careful line through these topics so that limited teaching resources could focus where most important. We decided that students should

develop deep understanding and mastery of linear and exponential functions. They should also have familiarity with other families of functions, and apply their algebraic, modeling and problem solving skills to them—but not develop in-depth technical mastery and understanding. Thus we defined two distinct levels of attention and identified which families of functions got which level of attention.

Why were exponential functions selected for intensive focus in the Functions standard instead of, say, quadratic functions? What tipped the balance was the high coherence value of exponential functions in supporting modeling and their wide utility in work and life. Quadratic functions were also judged to be well supported by expectations defined under Expressions and Equations.

These examples indicate the kind of reasoning, informed by evidence, that it takes to design standards aligned to the demands of college and career readiness in a global economy. We considered inclusion in international standards, requirements of college and the workplace, surveys of college faculty and the business community, and other sources of evidence. As we navigated these sometimes conflicting signals, we always remained aware of the finiteness of instructional resources and the need for deep mathematical coherence in the standards.

At the end of this document, there is a listing of a number of sources that played a role in the deliberations described above and more generally throughout the process to inform our decisions. A hyperlinked version of the bibliography can be found online at www.corestandards.org.

College and Career Readiness Standards for Mathematics

Draft for Review and Comment

September 21, 2009

Contents 1

Introduction 2-4

How Evidence Informed Decisions in Drafting the Standards 5, 6

College and Career Readiness Standards for Mathematics 7-19

- Mathematical Practice 8
- Number 9
- Quantity 10
- Expressions 11
- Equations 12
- Functions 13
- Modeling 14
- Shape 15
- Coordinates 16
- Probability 17
- Statistics 18
- Example Tasks online at www.corestandards.org

Sample of Works Consulted 19-22

Introduction

The *College and Career Readiness Standards for Mathematics* consist of three interconnected parts: a Standard for Mathematical Practice, ten Standards for Mathematical Content, and a set of Example Tasks.

The Standard for Mathematical Practice has six Core Practices that describe the way proficient students approach mathematics. Proficient students attend to precision, construct viable arguments, make sense of complex problems and persevere in solving them, look for hidden structure, note regularity in repeated reasoning, and use technology intelligently. This approach to mathematics is an essential part of being ready for college and career.

The Standards for Mathematical Content form the backbone of this document. Each of these ten standards consists of Core Concepts, Core Skills, and a description of the student's Coherent Understanding. Students who encounter the subject with a focus on coherence will be better able to learn more mathematics at a deeper level and be better able to access and apply the mathematics they know. The ten Standards for Mathematical Content pull together topics previously studied and look ahead toward topics in further coursework and training programs.

The Standards for Mathematical Content are designed to draw greater attention to powerful organizing principles in mathematics, such as functional relationships or the laws of arithmetic. They also allow important distinctions to be made more clearly, such as that between Expressions and Equations. And they surface the deep connections that often underlie mathematical coherence, such as the blending of algebra with geometry represented by Coordinates. These ten are not categories or buckets of topics to cover; they are standards. They describe the coherence students need and deserve as they go forward to their mathematical futures.

The third component of the *College and Career Readiness Standards for Mathematics* is a Web-based collection of Example Tasks that exemplifies the variety of performances required. High standards demand that students *use* their knowledge, skills and good practices to solve problems from a variety of contexts, both within mathematics and from the world outside. Example Tasks exemplify the range and variety of use that is expected. Teachers and designers of curriculum and assessment will find in the collection of examples a guide to what these standards mean. Over time, the collection of tasks will grow.

Together, these three components establish an evidence-based standard for college and career readiness. The *College and Career Readiness Standards for Mathematics* have been created with attention to the expectations of the highest achieving countries. They have focus and depth, emphasizing the understanding of and connections among topics that are most important for success regardless of a student's pathway after reaching these standards.

A primary goal of developing these standards is to enable students to achieve *mathematical proficiency* (see sidebar). Students are expected to understand the knowledge described in the Core Concepts and in the Coherent Understandings at a depth that enables them to reason with that knowledge—to analyze, interpret and evaluate mathematical problems, make deductions, and justify results. The Core Skills are meant to be used strategically and adaptively to solve problems. Students' knowledge and skills come to life and take their value when melded with the ways they approach mathematics—as described by the Core Practices.

The specific verbs used to describe concepts and skills in these standards are not meant to limit or indicate levels of any taxonomy. Although using verbs to indicate levels of depth has been a common practice in this country's standards writing, high performing nations do not use verbs in this way. They describe depth and practices first in separate sections of their syllabi. We have adopted the high performing countries' practice of focusing on a clear statement of what mathematics should be learned when writing standards for knowledge and skills.

Instruction, curriculum and assessment designed to achieve these standards should range over all strands of proficiency in *Adding It Up*, all depths of knowledge in Norman L. Webb's Depth of Knowledge taxonomy, all levels of Bloom's Taxonomy, and all levels of cognitive demand. In the Core Skills and Core Practices we have sometimes used terms like "explore" to indicate a lighter treatment with a goal of awareness and experience rather than proficiency. We have used Example Tasks to show the depth of knowledge and deployment of skills expected.

From *Adding it up: Helping children learn mathematics* (National Research Council, 2001, p. 116):

Recognizing that no term captures completely all aspects of expertise, competence, knowledge, and facility in mathematics, we have chosen mathematical proficiency to capture what we believe is necessary for anyone to learn mathematics successfully. Mathematical proficiency, as we see it, has five components, or strands:

- conceptual understanding—comprehension of mathematical concepts, operations, and relations
- procedural fluency—skill in carrying out procedures flexibly, accurately, efficiently, and appropriately
- strategic competence—ability to formulate, represent, and solve mathematical problems
- adaptive reasoning—capacity for logical thought, reflection, explanation, and justification
- productive disposition—habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy.

These standards are measurable; that is, they are observable and verifiable through the broad spectrum of student performances that may be assessed during classroom observation, school-based examinations and large-scale testing. The *College and Career Readiness Standards for Mathematics* can guide the development of assessment frameworks that distribute the assessment responsibilities across multiple levels of the educational system: state, district, school and teacher.

Students reaching these levels will be prepared for non-remedial college mathematics courses and will be prepared for training programs for career-level jobs; however, the *College and Career Readiness Standards for Mathematics* should not be construed as grade twelve exit standards. Students interested in STEM fields, and those who wish to go beyond for other reasons, will need to reach these standards before their senior year in order to have time to include additional mathematics. A number of pathways for advanced learning are possible and may be integrated throughout the high school experience and beyond.

The Common Core State Standards Initiative

The *College and Career Readiness Standards for Mathematics* will anchor the next phase of the Common Core State Standards Initiative: development of K–12 Mathematics Standards. Those K–12 Standards are in turn expected to guide the development of a next generation of assessments, developed collaboratively by multiple states. The K–12 Mathematics Standards will serve as a guide and tool for aligning instruction, curriculum, assessment, teacher supports, and systems of accountability. To ensure alignment, the Standard for Mathematical Practice, the Standards for Mathematical Content, and the Example Tasks should all be taken into account.

Overview of the Mathematical Practice Standard

Attend to precision.
Construct viable arguments.
Make sense of complex problems and persevere in solving them.
Look for structure.
Look for and express regularity in repeated reasoning.
Make strategic decisions about the use of technological tools.

Overview of the Mathematical Content Standards

Number. Procedural fluency in operations with real numbers and strategic competence in approximation are grounded in an understanding of place value. The rules of arithmetic govern operations on numbers and extend to operations in algebra.

Quantity. A quantity is an attribute of an object or phenomenon that can be specified using a number and a unit, such as 2.7 centimeters, 42 questions or 28 miles per gallon.

Expressions. Expressions use numbers, variables and operations to describe computations. The rules of arithmetic, the use of parentheses and the conventions about order of operations assure that the computation has a well-determined value.

Equations. An equation is a statement that two expressions are equal. Solutions to an equation are the values of the variables in it that make it true.

Functions. Functions model situations where one quantity determines another. Because nature and society are full of dependencies, functions are important tools in the construction of mathematical models.

Modeling. Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

Shape. From only a few axioms, the deductive method of Euclid generates a rich body of theorems about geometric objects, their attributes and relationships.

Coordinates. Applying a coordinate system to Euclidean space connects algebra and geometry, resulting in powerful methods of analysis and problem solving.

Probability. Probability assesses the likelihood of an event in a situation that involves randomness. It quantifies the degree of certainty that an event will happen as a number from 0 through 1.

Statistics. Decisions or predictions are often based on data—numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability in the data.

How Evidence Informed Decisions in Drafting the Standards

The Common Core State Standards Initiative builds on a generation of standards efforts led by states and national organizations. On behalf of the states, we have taken a step toward the next generation of standards that are aligned to college- and career-ready expectations and are internationally benchmarked. These standards are grounded in evidence from many sources that shows that the next generation of standards in mathematics must be focused on deeper, more thorough understanding of more fundamental mathematical ideas and higher mastery of these fewer, more useful skills.

The evidence that supports this new direction comes from a variety of sources. International comparisons show that high performing countries focus on fewer topics and that the U.S. curriculum is "a mile wide and an inch deep." Surveys of college faculty show the need to shift away from high school courses that merely survey advanced topics, toward courses that concentrate on developing an understanding and mastery of ideas and skills that are at the core of advanced mathematics. Reviews of data on student performance show the large majority of U.S. students are not mastering the mile wide list of topics that teachers cover.

The evidence tells us that in high performing countries like Singapore, the gap between what is taught and what is learned is relatively smaller than in Malaysia or the U.S. states. Malaysia's standards are higher than Singapore's, but their performance is much lower. One could interpret the narrower gap in Singapore as evidence that they actually use their standards to manage instruction; that is, Singapore's standards were set within the reach of hard work for their system and their population. Singapore's Ministry of Education flags its webpage with the motto, "Teach Less, Learn More." We accepted the challenge of writing standards that could work that way for U.S. teachers and students: By providing focus and coherence, we could enable more learning to take place at all levels.

However, a set of standards cannot be simplistically "derived" from any body of evidence. It is more accurate to say that we used evidence to inform our decisions. A few examples will illustrate how this was done.

For example, systems of linear equations are covered by all states, yet students perform surprisingly poorly on this topic when assessed by ACT. We determined that systems of linear equations have high coherence value, mathematically; that this topic is included by all high performing nations; and that it has moderately high value to college faculty. Result: We included it in our standards.

A different and more complex pattern of evidence appeared with families of functions. Again we found that students performed poorly on problems related to many advanced functions (trigonometric, logarithmic, quadratic, exponential, and so on). Again we found that a number of states cover them, even though college faculty rated them lower in value. High performing countries include this material, but with different degrees of demand. We decided that we had to carve a careful line through these topics so that limited teaching resources could focus where most important. We decided that students should

develop deep understanding and mastery of linear and exponential functions. They should also have familiarity with other families of functions, and apply their algebraic, modeling and problem solving skills to them—but not develop in-depth technical mastery and understanding. Thus we defined two distinct levels of attention and identified which families of functions got which level of attention.

Why were exponential functions selected for intensive focus in the Functions standard instead of, say, quadratic functions? What tipped the balance was the high coherence value of exponential functions in supporting modeling and their wide utility in work and life. Quadratic functions were also judged to be well supported by expectations defined under Expressions and Equations.

These examples indicate the kind of reasoning, informed by evidence, that it takes to design standards aligned to the demands of college and career readiness in a global economy. We considered inclusion in international standards, requirements of college and the workplace, surveys of college faculty and the business community, and other sources of evidence. As we navigated these sometimes conflicting signals, we always remained aware of the finiteness of instructional resources and the need for deep mathematical coherence in the standards.

At the end of this document, there is a listing of a number of sources that played a role in the deliberations described above and more generally throughout the process to inform our decisions. A hyperlinked version of the bibliography can be found online at www.corestandards.org.

College and Career Readiness Standards for Mathematics

Mathematical Practice

Proficient students expect mathematics to make sense. They take an active stance in solving mathematical problems. When faced with a non-routine problem, they have the courage to plunge in and try something, and they have the procedural and conceptual tools to carry through. They are experimenters and inventors, and can adapt known strategies to new problems. They think strategically.

Students who engage in these practices discover ideas and gain insights that spur them to pursue mathematics beyond the classroom walls. They learn that effort counts in mathematical achievement.[a] These are practices that expert mathematical thinkers encourage in apprentices. Encouraging these practices in our students should be as much a goal of the mathematics curriculum as is teaching specific content topics and procedures.[b] Taken together with the Standards for Mathematical Content, they support productive entry into college courses or career pathways.

Core Practices · Students can and do:

1 Attend to precision.

Mathematically proficient students organize their own ideas in a way that can be communicated precisely to others, and they analyze and evaluate others' mathematical thinking and strategies noting the assumptions made. They clarify definitions. They state the meaning of the symbols they choose, are careful about specifying units of measure and labeling axes, and express their answers with an appropriate degree of precision. Rather than saying, "let v be speed and let t be time," they would say "let v be the speed in meters per second and let t be the elapsed time in seconds from a given starting time." They recognize that when someone says the population of the United States in June 2008 was 304,059,724, the last few digits indicate unwarranted precision.

2 Construct viable arguments.

Mathematically proficient students understand and use stated assumptions, definitions and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They break things down into cases and can recognize and use counterexamples. They use logic to justify their conclusions, communicate them to others and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose.

3 Make sense of complex problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They consider analogous problems, try special cases and work on simpler forms. They evaluate their progress and change course if necessary. They try putting algebraic expressions into different forms or try changing the viewing window on their calculator to get the information they need. They look for correspondences between equations, verbal descriptions, tables, and graphs. They draw diagrams of relationships, graph data, search for regularity and trends, and construct mathematical models. They check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?"

4 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern. For example, in $x^2 + 5x + 6$ they can see the 5 as $2 + 3$ and the 6 as 2×3. They recognize the significance of an existing line in a geometric figure and can add an auxiliary line to make the solution of a problem clear. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects. For example, by seeing $5 - 3(x - y)^2$ as 5 minus a positive number times a square, they see that it cannot be more than 5 for any real numbers x and y.[b]

5 Look for and express regularity in repeated reasoning.

Mathematically proficient students pay attention to repeated calculations as they carry them out, and look both for general algorithms and for shortcuts. For example, by paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, they might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel in the expansions of $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ leads to the general formula for the sum of a geometric series. As they work through the solution to a problem, proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.[b]

6 Make strategic decisions about the use of technological tools.

Mathematically proficient students consider the available tools when solving a mathematical problem, whether pencil and paper, ruler, protractor, graphing calculator, spreadsheet, computer algebra system, statistical package, or dynamic geometry software. They are familiar enough with all of these tools to make sound decisions about when each might be helpful. They use mathematical understanding and estimation strategically, attending to levels of precision, to ensure appropriate levels of approximation and to detect possible errors. They are able to use these tools to explore and deepen their understanding of concepts.

(a) For the importance of students' beliefs about effort, see the National Mathematics Advisory Panel's Report of the Task Group on Learning Processes, p. 4-10 (2008). (b) Cuoco, A., Goldenberg, E. P., and Mark, J., *Journal of Mathematical Behavior*, 15 (4), 375-402, 1996; *Focus in High School Mathematics*. Reston, VA: NCTM, in press; Harel, G., What is Mathematics? A Pedagogical Answer to a Philosophical Question. In R. B. Gold & R. Simons (Eds.), *Current Issues in the Philosophy of Mathematics From the Perspective of Mathematicians*, Mathematical Association of America, 2008.

Number

Core Concepts · Students understand that:

A The real numbers include the rational numbers and are in one-to-one correspondence with the points on the number line.

B Quantities can be compared using division, yielding rates and ratios.

C A fraction can represent the result of dividing the numerator by the denominator; equivalent fractions have the same value.

D Place value and the rules of arithmetic form the foundation for efficient algorithms.

A Coherent Understanding of Number. Procedural fluency in operations with real numbers and strategic competence in approximation are grounded in an understanding of place value. The rules of arithmetic govern operations on numbers and extend to operations in algebra:

- Numbers can be added in any order with any grouping and multiplied in any order with any grouping.
- Adding 0 and multiplying by 1 both leave a number unchanged.
- All numbers have additive inverses, and all numbers except zero have multiplicative inverses.
- Multiplication distributes over addition.

Subtraction and division are defined in terms of addition and multiplication, so are also governed by these rules.

The place value system bundles units into 10s, then 10s into 100s, and so on, providing an efficient way to name large numbers. Subdividing in a similar way extends this to the decimal system, which provides an address system for locating all real numbers on the number line with arbitrarily high accuracy. Place value is the basis for efficient algorithms, reducing much computation to single-digit arithmetic. Mental computation strategies also make opportunistic use of the rules of arithmetic, as when the product $5\times177\times2$ is computed at a glance to obtain 1770, rather than methodically working from left to right.

An estimate may be more appropriate than an exact value, for example, when you want to know the number of calories in a meal. Often a result is reported using fewer digits than were calculated. A mature number sense includes having rules of thumb about how much accuracy is appropriate and understanding that accuracy to more than a few decimal places often takes substantial effort. Estimation and approximation are also useful in checking calculations.

Rational numbers represented as fractions can be located on the number line by seeing them as numbers expressed in different units; for example, 3/5 is 3 units, where each unit is 1/5. However, rational numbers do not fill out the number line. There are also irrational numbers, such as π or $\sqrt{2}$. Each point on the number line then corresponds to a real number that is either rational or irrational.

Connections to Expressions, Functions and Coordinates. The rules of arithmetic govern the manipulations of expressions and functions. Two perpendicular number lines define the coordinate plane.

Core Skills · Students can and do:

1 Compare numbers and make sense of their magnitude.

Include positive and negative numbers expressed as fractions, decimals, powers, and roots. Limit to square and cube roots. Include very large and very small numbers and the use of scientific notation.

2 Know when and how to use standard algorithms, and perform them flexibly, accurately and efficiently.*

3 Use mental strategies and technology to formulate, represent and solve problems.**

4 Solve multi-step problems involving fractions and percentages.

Include situations such as simple interest, tax, markups/markdowns, gratuities and commissions, fees, percent increase or decrease, percent error, expressing rent as a percentage of take-home pay, and so on.

5 Use estimation and approximation to solve problems.

Include evaluating answers for their reasonableness, detecting errors, and giving answers to an appropriate level of precision.

* This aligns with the concept of procedural fluency as in the National Research Council report *Adding it up: Helping children learn mathematics.* Specifically, "*Procedural fluency* refers to knowledge of procedures, knowledge of when and how to use them appropriately, and skill in performing them flexibly, accurately, and efficiently" (p. 121).

** This aligns with the concept of strategic competence as described in *Adding it up.* "*Strategic competence* refers to the ability to formulate mathematical problems, represent them, and solve them" (p. 124).

Quantity

Core Concepts · Students understand that:

A The value of a quantity is not specified unless the units are named or understood from the context.

B Quantities can be added and subtracted only when they are of the same type (length, area, speed, etc.).

C Quantities can be multiplied or divided to create new types of quantities, called derived quantities.

A Coherent Understanding of Quantity. A quantity is an attribute of an object or phenomenon that can be specified using a number and a unit, such as 2.7 centimeters, 42 questions or 28 miles per gallon.

The length of a football field and the speed of light are both quantities. If we choose units of miles per second, then the speed of light has a value of approximately 186,000 miles per second. But the speed of light need not be expressed in miles per second; it may be approximated by 3×10^8 meters per second or in any other unit of speed. Bare numerical values such as 186,000 do not describe quantities unless they are paired with units.

Speed (distance divided by time), rectangular area (length multiplied by length), density (mass divided by volume), and population density (number of people divided by land area) are examples of derived quantities, obtained by multiplying or dividing quantities.

It can make sense to add two quantities, such as when a child 51 inches tall grows 3 inches to become 54 inches tall. To be added or subtracted, quantities must be of the same type (length, area, speed, etc.); to add or subtract their values, the quantities must be expressed in the same units. Converting quantities to have the same units is like converting fractions to have a common denominator before adding or subtracting. But, even when quantities have the same units it does not always make sense to add them. For example, if a wooded park with 300 trees per acre is next to a field with 30 trees per acre, they do not have 330 trees per acre.

Doing algebra with units in a calculation reveals the units of the answer, and can help reveal a mistake if, for example, the answer comes out to be a distance when it should be a speed.

Connections to Number, Expressions, Equations, Functions, Modeling and Statistics. Operations described under Number and Expressions govern the operations one performs on quantities, including the units involved. Quantity is an integral part of any application of mathematics, and has connections to solving problems using data, equations, functions and modeling.

Core Skills · Students can and do:

1 Know when and how to convert units in computations.

Include the addition and subtraction of quantities of the same type expressed in different units; averaging data given in mixed units; converting units for derived quantities such as density and speed.

2 Use and interpret quantities and units correctly in algebraic formulas.

Include specifying units when defining variables and attending to units when writing expressions and equations.

3 Use and interpret quantities and units correctly in graphs and data displays.

Include function graphs, data tables, scatterplots and other visual displays of dimensioned data.

4 Use units as a way to understand problems and to guide the solution of multi-step problems.

Include examples such as acceleration; currency conversions; people-hours; social science measures, such as deaths per 100,000; and general rates, such as points per game.

Expressions

Core Concepts · Students understand that:

A Expressions are constructions built up from numbers, variables, and operations, which have a numerical value when each variable is replaced with a number.

B Complex expressions are made up of simpler expressions.

C The rules of arithmetic can be applied to transform an expression without changing its value.

D Rewriting expressions in equivalent forms serves a purpose in solving problems.

A Coherent Understanding of Expressions. Expressions use numbers, variables and operations to describe computations. The rules of arithmetic, the use of parentheses and the conventions about order of operations assure that the computation has a well-determined value.

Reading an expression with comprehension involves analysis of its underlying structure, which may suggest a different but equivalent way of writing it 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. But rewriting $p + 0.05p$ as $1.05p$ shows that adding a tax is the same as multiplying by a constant factor.

Algebraic manipulations are based on the conventions of algebraic notation and the rules of arithmetic. Heuristic mnemonic devices are not a substitute for procedural fluency. For example, factoring, expanding, collecting like terms, the rules for interpreting minus signs next to parenthetical sums, and adding fractions with a common denominator are all instances of the distributive law; the definitions for negative and rational exponents are based on the extension of the exponent laws for positive integers. The laws of exponents connect multiplication of numbers to addition of exponents and thus express the deep relationship between addition and multiplication captured by the parallel nature of the rules of arithmetic for these operations.

Complex expressions are made up of simpler expressions using arithmetic operations and substitution. When simple expressions within more complex expressions are treated as single quantities, or chunks, the underlying structure of the larger expression may be more evident.

Connections to Equations and Functions. Setting expressions equal to each other leads to equations. Expressions can define functions of the variables that appear in them, with equivalent expressions defining the same function.

Core Skills · Students can and do:

1 See structure in expressions.

For example, recognize: that the expressions $x^4 - y^4$ and $(x + y)^2 - (x - y)^2$ are differences of squares; that there are different ways to rewrite the latter expression, e.g., by expanding and collecting like terms or by factoring as a difference of squares; that p is a common factor in $p + 0.025p$; that an expression in the form $(x - 3)^2 + 14$ reveals its minimum value.

2 Manipulate simple expressions.

Show procedural fluency in the following cases: factoring out common terms; factoring expressions with quadratic structure; writing in standard form sums, differences, and products of polynomials. Include completing the square and rewriting in standard form sums, differences, products, and quotients of simple rational expressions; rewriting expressions with negative exponents and those involving square or cube roots of a single term involving exponents.

3 Define variables and write an expression to represent a quantity in a problem.

Include contextual problems.

4 Interpret an expression that represents a quantity in terms of the context.

Include interpreting parts of an expression, such as terms, factors and coefficients.

Equations

Core Concepts · Students understand that:

A An equation is a statement that two expressions are equal.

B The solutions of an equation are the values of the variables that make the resulting numerical statement true.

C The steps in solving an equation are guided by understanding and justified by logical reasoning.

D Equations not solvable in one number system may have solutions in a larger number system.

A Coherent Understanding of Equations. An equation is a statement that two expressions are equal. Solutions to an equation are the values of the variables in it that make it true. If the equation is true for all values of the variables, then we call it an identity; identities are often discovered by manipulating one expression into another.

The solutions of an equation in one variable form a set of numbers; the solutions of an equation in two variables form a set of ordered pairs, which can be graphed in the plane. Equations can be combined into systems to be solved simultaneously.

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

Some equations have no solutions in a given number system, stimulating the formation of expanded number systems (integers, rational numbers, real numbers and complex numbers).

A formula is a type of equation. The same solution techniques used to solve equations can be used to rearrange formulas. For example, the formula for the area of a trapezoid, $A = \left(\frac{b_1+b_2}{2}\right)h$, can be solved for h using the same deductive process.

Inequalities can be solved in much the same way as equations. Many, but not all, of the properties of equality extend to the solution of inequalities.

Connections to Functions, Coordinates, and Modeling. Equations in two variables may define functions. Asking when two functions have the same value leads to an equation; graphing the two functions allows for the approximate solution of the equation. Equations of lines involve coordinates, and converting verbal descriptions to equations is an essential skill in modeling.

Core Skills · Students can and do:

1 Understand a problem and formulate an equation to solve it.

Extend to inequalities and systems.

2 Solve equations in one variable using manipulations guided by the rules of arithmetic and the properties of equality.

Solve linear equations with procedural fluency. For quadratic equations, include solution by inspection, by factoring, or by using the quadratic formula. Understand that the quadratic formula comes from completing the square. Include simple absolute value equations solvable by direct inspection and by understanding the interpretation of absolute value as distance.

3 Rearrange formulas to isolate a quantity of interest.

Exclude cases that require extraction of roots or inverse functions.

4 Solve systems of equations.

Focus on pairs of simultaneous linear equations in two variables. Include algebraic techniques, graphical techniques and solving by inspection.

5 Solve linear inequalities in one variable and graph the solution set on a number line.

Emphasize solving the associated equality and determining on which side of the solution of the associated equation the solutions to the inequality lie.

6 Graph the solution set of a linear inequality in two variables on the coordinate plane.

Emphasize graphing the associated equation, using a dashed or solid line as appropriate and shading to indicate the half-plane on which the solutions to the inequality lie.

Functions

Core Concepts · Students understand that:

A A function is a rule, often defined by an expression, that assigns a unique output for every input.

B The graph of a function f is a set of ordered pairs $(x, f(x))$ in the coordinate plane.

C Functions model situations where one quantity determines another.

D Common functions occur in families where each member describes a similar type of dependence.

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

In school mathematics, functions usually have numerical inputs and outputs and are often defined by an algebraic expression. For example, the time in hours it takes for a plane to fly 1000 miles is a function of the plane's average ground speed in miles per hour, v; the rule $T(v) = 1000/v$ expresses this relationship algebraically and defines a function whose name is T.

The set of possible 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. The graph of a function is a useful way of visualizing the relationship the function models, and manipulating the expression for a function can throw light on the function's properties.

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 an initial value of zero describe proportional relationships.

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. The graph of a function f is the same as the solution set of the equation $y = f(x)$. Questions about when two functions have the same value lead to equations, whose solutions can be visualized from the intersection of the graphs. Since functions describe relationships between quantities, they are frequently used in modeling. Sometimes functions are defined by a recursive process, which can be modeled effectively using a spreadsheet or other technology.

Core Skills · Students can and do:

1 Recognize proportional relationships and solve problems involving rates and ratios.

Include being able to express proportional relationships as functions.

2 Describe the qualitative behavior of common types of functions using graphs and tables.

Identify: intercepts; intervals where the function is increasing, decreasing, positive or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. Use technology to explore the effects of parameter changes on the graphs of linear, power, quadratic, polynomial, simple rational, exponential, logarithmic, sine and cosine, absolute value and step functions.

3 Analyze functions using symbolic manipulation.

Include slope-intercept and point-slope form of linear functions; vertex form of quadratic functions to identify symmetry and find maximums and minimums; factored form to find zeros. Use manipulations as described under Expressions.

4 Use the families of linear and exponential functions to solve problems.

For linear functions $f(x) = mx + b$, understand b as the intercept or initial value and m as the slope or rate of change. For exponential functions $f(x) = a \cdot b^x$, understand a as the intercept or initial value and b as the growth factor.

5 Find and interpret rates of change.

Compute the rate of change of linear functions and make qualitative observations about how the rate of change varies for nonlinear functions.

Modeling

Core Concepts · Students understand that:

A Mathematical models involve choices and assumptions that abstract key features from situations to help us solve problems.

B Even very simple models can be useful.

A Coherent Understanding of Modeling. Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

A model can be very simple, such as a geometric shape to describe a physical object like a coin. Even so simple a model involves making choices. It is up to us whether to model the solid nature of the coin with a three-dimensional cylinder, or whether a two-dimensional disk works well enough for our purposes. For some purposes, we might even choose to adjust the right circular cylinder to model more closely the way the coin deviates from the cylinder.

In any given situation, the model we devise depends on a number of factors: How precise an answer do we want or need? What aspects of the situation do we most need to understand, control, or optimize? What resources of time and tools do we have? The range of models we can create and analyze is constrained as well by the limitations of our mathematical and technical skills. For example, modeling a physical object, a delivery route, a production schedule, or a comparison of loan amortizations each requires different sets of tools. Networks, spreadsheets and algebra are powerful tools for understanding and solving problems drawn from different types of real-world situations. One of the insights provided by mathematical modeling is that essentially the same mathematical structure might model seemingly different situations.

The basic modeling cycle is one of (1) identifying the key features of a situation, (2) creating geometric, algebraic or statistical objects that describe key features of the situation, (3) analyzing and performing operations on these objects to draw conclusions and (4) interpreting the results of the mathematics in terms of the original situation. Choices and assumptions are present throughout this cycle.

Connections to Quantity, Equations, Functions, Shape, Coordinates and Statistics. Modeling makes use of shape, data, graphs, equations and functions to represent real-world quantities and situations.

Core Skills · Students can and do:

1 Model numerical situations.

Include readily applying the four basic operations in combination to solve multi-step quantitative problems with dimensioned quantities; making estimates to introduce numbers into a situation and get problems started; recognizing proportional or near-proportional relationships and analyzing them using characteristic rates and ratios.

2 Model physical objects with geometric shapes.

Include common objects that can reasonably be idealized as two- and three-dimensional geometric shapes. Identify the ways in which the actual shape varies from the idealized geometric model.

3 Model situations with equations and inequalities.

Include situations well described by a linear inequality in two variables or a system of linear inequalities defining a region in the plane.

4 Model situations with common functions.

Include situations well described by linear, quadratic or exponential functions; and situations that can be well described by inverse variation ($f(x) = k/x$). Include identifying a family of functions that models features of a problem, and identifying a particular function of that family and adjusting it to fit by changing parameters. Understand the recursive nature of situations modeled by linear and exponential functions.

5 Model situations using probability and statistics.

Include using simulations to model probabilistic situations; describing the shape of a distribution of values and summarizing a distribution with measures of center and variability; modeling a bivariate relationship using a trend line or a regression line.

6 Interpret the results of applying a model and compare models for a particular situation.

Include realizing that models seldom fit exactly and so there can be error; identifying simple sources of error and being careful not to over-interpret models. Include recognizing that there can be many models that relate to a situation, that they can capture different aspects of the situation, that they can be simpler or more complex, and that they can have a better or worse fit to the situation and the questions being asked.

Shape

Core Concepts · Students understand that:

A Shapes and their parts, attributes, and measurements can be analyzed deductively.*

B Congruence, similarity, and symmetry can be analyzed using transformations.

C Mathematical shapes model the physical world, resulting in practical applications of geometry.

D Right triangles and the Pythagorean theorem are central to geometry and its applications, including trigonometry.

A Coherent Understanding of Shape. From only a few axioms, the deductive method of Euclid generates a rich body of theorems about geometric objects, their attributes and relationships. Once understood, those attributes and relationships can be applied in diverse practical situations—interpreting a schematic drawing, estimating the amount of wood needed to frame a sloping roof, rendering computer graphics, or designing a sewing pattern for the most efficient use of material.

Understanding the attributes of geometric objects often relies on measurement: a circle is a set of points in a plane at a fixed distance from a point; a cube is bounded by six squares of equal area; when two parallel lines are crossed by a transversal, pairs of corresponding angles are congruent.

The concepts of congruence, similarity and symmetry can be united under the concept of geometric transformation. Reflections and rotations each explain a particular type of symmetry, and the symmetries of an object offer insight into its attributes—as when the reflective symmetry of an isosceles triangle assures that its base angles are congruent. Applying a scale transformation to a geometric figure yields a similar figure. The transformation preserves angle measure, and lengths are related by a constant of proportionality. If the constant of proportionality is one, distances are also preserved (so the transformation is a rigid transformation) and the figures are congruent.

The definitions of sine, cosine and tangent for acute angles are founded on right triangle similarity, and, with the Pythagorean theorem, are fundamental in many practical and theoretical situations.

Connections to Coordinates, Functions and Modeling. The Pythagorean theorem is a key link between geometry, measurement and distance in the coordinate plane. Parameter changes in families of functions can be interpreted as transformations applied to their graphs and those functions, as well as geometric objects in their own right, can be used to model contextual situations.

*In this document, deductive analysis aligns with the notion of adaptive reasoning as defined in *Adding it Up*, and includes empirical exploration, informal justification, and formal proof.

Core Skills · Students can and do:

1 Use multiple geometric properties to solve problems involving geometric figures.

Properties include: measures of interior angles of a triangle sum to 180°; vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; measures of supplementary angles sum to 180°; two lines parallel to a third are parallel to each other; points on a perpendicular bisector of a segment are exactly those equidistant from the segment's endpoints; and a line tangent to a circle is perpendicular to the radius meeting it.

2 Prove theorems, test conjectures and identify logical errors.

Include theorems establishing the properties in Core Skill 1 and other theorems about angles, parallel and perpendicular lines, similarity and congruence of triangles.

3 Construct and interpret representations of geometric objects.

Include classical construction techniques and construction techniques supported by modern technologies. Include moving between two-dimensional representations and the three-dimensional objects they represent, such as in schematics, assembly instructions, perspective drawings and multiple views.

4 Solve problems involving measurements.

Include measurement (length, angle measure, area, surface area, and volume) of a variety of figures and shapes in two- and three-dimensions. Compute measurements using formulas and by decomposing complex shapes into simpler ones.

5 Solve problems involving similar triangles and scale drawings.

Include computing actual lengths, areas and volumes from a scale drawing and reproducing a scale drawing at a different scale.

6 Apply properties of right triangles and right triangle trigonometry to solve problems.

Include using the Pythagorean theorem and properties of special right triangles, and applying sine, cosine and tangent to determine lengths and angle measures of right triangles. Use right triangles and their properties to solve real-world problems. Limit angle measures to degrees.

Coordinates

Core Concepts · Students understand that:

A Locations in the plane or in space can be specified by pairs or triples of numbers called coordinates.

B Coordinates link algebra with geometry and allow methods in one domain to solve problems in the other.

C The set of solutions to an equation in two variables forms a curve in the coordinate plane—such as a line, parabola, circle—and the solutions to systems of equations correspond to intersections of these curves.

A Coherent Understanding of Coordinates. Applying a coordinate system to Euclidean space 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.

Coordinate geometry is a rich field for exploration. How does a geometric transformation such as a translation or reflection affect the coordinates of points? How is the geometric definition of a circle reflected in its equation?

Adding a third perpendicular axis associates three numbers with locations in three dimensions and extends the use of algebraic techniques to problems involving the three-dimensional world we live in.

Connections to Shape, Quantity, Equations and Functions. Coordinates can be used to reason about shapes. In applications, coordinate values often have units (such as meters and bushels). A one-variable equation of the form $f(x) = g(x)$ may be solved in the coordinate plane by finding intersections of the curves $y = f(x)$ and $y = g(x)$.

Core Skills · Students can and do:

1 Translate fluently between lines in the coordinate plane and their equations.

Include predicting visual features of lines by inspection of their equations, determining the equation of the line through two given points, and determining the equation of the line with a given slope passing through a given point.

2 Identify the correspondence between parameters in common families of equations and the location and appearance of their graphs.

Include common families of equations—the graphs of $Ax + By = C$, $y = mx + b$ and $x = a$ are straight lines; the graphs of $y = a(x - h)^2 + k$ and $y = Ax^2 + Bx + C$ are parabolas; and the graph of $(x - h)^2 + (y - k)^2 = r^2$ is a circle.

3 Use coordinates to solve geometric problems.

Include proving simple theorems algebraically, using coordinates to compute perimeters and areas for triangles and rectangles, finding midpoints of line segments, finding distances between pairs of points and determining when two lines are parallel or perpendicular.

Probability

Core Concepts · Students understand that:

A Probability models outcomes for situations in which there is inherent randomness, quantifying the degree of uncertainty in terms of relative frequency of occurrence.

B The law of large numbers provides the basis for estimating certain probabilities by use of empirical relative frequencies.

C The laws of probability govern the calculation of probabilities of combined events.

D Interpreting probabilities contextually is essential to rational decision-making in situations involving randomness.

A Coherent Understanding of Probability. Probability assesses the likelihood of an event in a situation that involves randomness. It quantifies the degree of certainty that an event will happen as a number from 0 through 1. This number is generally interpreted as the relative frequency of occurrence of the event over the long run.

The structure of a probability model begins by listing or describing the possible outcomes for a random situation (the sample space) and assigning probabilities based on an assumption about long-run relative frequency. In situations such as flipping a coin, rolling a number cube, or drawing a card, it is reasonable to assume various outcomes are equally likely.

Compound events constructed from these simple ones can be represented by tree diagrams and by frequency or relative frequency tables. The probabilities of compound events can be computed using these representations and by applying the additive and multiplicative laws of probability. Interpreting these probabilities relies on an understanding of independence and conditional probability, approachable through the analysis of two-way tables.

Converting a verbally-stated problem into the symbols and relations of probability requires careful attention to words such as *and*, *or*, *if*, and *all*, and to grammatical constructions that reflect logical connections. This is especially true when applying probability models to real-world problems, where simplifying assumptions are also usually necessary in order to gain at least an approximate solution.

Connections to Statistics and Expressions. Probability is the foundation for drawing valid conclusions from sampling or experimental data. Counting has an advanced connection with Expressions through Pascal's triangle and binomial expansions.

Core Skills · Students can and do:

1 Compute theoretical probabilities by systematically counting points in the sample space.

Make use of symmetry and equally likely outcomes. Include permutation and combination problems as long as small numbers are involved or technology is used, so that formulas are not required.

2 Interpret probabilities of compound events using concepts of independence and conditional probability.

Include reading conditional probabilities from two-way tables.

3 Compute probabilities of compound events.

Make use of the additive and multiplicative laws of probability, tree diagrams and frequency or relative frequency tables in real contexts. Do not emphasize fluency with the related formulas

4 Estimate probabilities empirically.

Include using data from simulations carried out with technology to estimate probabilities.

5 Identify and explain common misconceptions regarding probability.

Include misconceptions about long-run versus short-run behavior of relative frequencies (the law of large numbers). Include attention to the use and misuse of probability in the media, especially in terms of interpreting charts and tables and in the contextual meaning of terms connected to probability, such as 'odds' or 'risk.'

6 Adapt probability models to solve real-world problems.

Include the use of conditional probability to assess subsets of data (e.g., what does the data say about males and females separately). Include the use of independence as a simplifying assumption (e.g., find the probability that two students both contract the disease this year).

Statistics

Core Concepts · Students understand that:

A Statistical methods take variability into account to support making informed decisions based on quantitative studies designed to answer specific questions.

B Visual displays and summary statistics condense the information in data sets into usable knowledge.

C Randomness is the foundation for using statistics to draw conclusions when testing a claim or estimating plausible values for a population characteristic.

D The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions.

A Coherent Understanding of Statistics. Decisions or predictions are often based on data—numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability in the data. Statistics provides tools for describing variability in data and for making informed decisions that take variability into account.

Data are gathered, displayed, summarized, examined and interpreted to discover patterns. Data can be summarized by a statistic measuring center, such as mean or median, and a statistic measuring spread, such as interquartile range or standard deviation. Different distributions can be compared numerically using these statistics or visually using plots. Which statistics to compare, 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 and this can be evaluated only under the condition of randomness.

In critically reviewing uses of statistics in public media and other reports, it is important to consider the study design, how the data were collected, and the analyses employed as well as the data summaries and the conclusions drawn.

Connections to Probability, Functions and Modeling. Valid conclusions about a population depend on designed simulations or other statistical studies using random sampling or assignment and rely on probability for their interpretation. Functional models may be used to approximate data. If the data are approximately linear, the relationship may be modeled with a trend line and the strength and direction of such a relationship may be expressed through a correlation coefficient. Technology facilitates the study of statistics by making it possible to simulate many possible outcomes in a short amount of time, and by generating plots, function models, trend lines and correlation coefficients.

Core Skills · Students can and do:

1 Formulate questions that can be addressed with data. Identify the relevant data, collect and organize it to respond to the question.

Include determining whether a question can best be addressed through a sample survey, randomized experiment or observational study. Include unbiased selection for a sample and randomization of assignment to treatment for an experiment.

2 Use appropriate displays and summary statistics for data.

Include univariate, bivariate, categorical and quantitative data. Include the thoughtful selection of displays and measures of center and spread to summarize data.

3 Interpret data displays and summaries critically; draw conclusions and develop recommendations.

Include paying attention to the context of the data, interpolating or extrapolating judiciously, and examining the effects of extreme values of the data on summary statistics of center and spread. Include data sets that follow a normal distribution. Include observing and interpreting linear trends in bivariate quantitative data.

4 Draw statistical conclusions involving population means or proportions using sample data.

Conclusions should be based on simulations or other informal techniques, rather than formulas.

5 Evaluate reports based on data.

Include looking for bias or flaws in the way the data were gathered or presented, as well as unwarranted conclusions, such as claims that confuse correlation with causation.

Sample of Works Consulted

I. National Reports and Recommendations

A. *Adding it Up: Helping Children Learn Mathematics*. National Council of Teachers of Mathematics, Mathematics Learning Study Committee, 2001.

B. *Crossroads in Mathematics*, 1995 and *Beyond Crossroads, 2006*. American Mathematical Association of Two-Year Colleges (AMATYC).

C. *Curriculum Focal Points for Prekindergarten through Grade 8 Mathematics: A Quest for Coherence*. National Council of Teachers of Mathematics, 2006.

D. *Foundations for Success: Final Report of the National Mathematics Advisory Panel* (NMAP), 2008.

E. *Guidelines for Assessment and Instruction in Statistics Education (GAISE) project* http://www.amstat.org/education/gaise/.

F. *Habits of Mind: An Organizing Principle for a Mathematics Curriculum*. Cuoco, A. , Goldenberg, E. P., and Mark, J. (1996). Journal of Mathematical Behavior, 15 (4), 375-402. Last retrieved July 15, 2009, from http://www2.edc.org/CME/showcase/HabitsOfMind.pdf.

G. *How People Learn: Brain, Mind, Experience, and School.* Bransford, J.D., A.L. Brown and R.R. Cocking, eds.. Committee on Developments in the Science of Learning, Commission on Behavioral and Social Sciences and Education, National Research Council, 1999.

H. *Mathematics and Democracy, The Case for Quantitative Literacy*, edited by Lynn Arthur Steen. National Council on Education and the Disciplines, 2001.

I. *The Opportunity Equation: Transforming Mathematics and Science Education for Citizenship and the Global Economy*. The Carnegie Corporation of New York and the Institute for Advanced Study, 2009. Online: http://www.opportunityequation.org/

J. *Principles and Standards for School Mathematics*. National Council of Teachers of Mathematics, 2000.

K. *Quantitative Literacy and Mathematical Competencies*. Niss, Mogen. Last retrieved July 15, 2009, from http://www.maa.org/Ql/pgs215_220.pdf

L. *A Research Companion to Principles and Standards for School Mathematics*. National Council of Teachers of Mathematics, 2003.

M. *Focus in High School Mathematics*: *Reasoning and Sense Making*. National Council of Teachers of Mathematics. Reston, VA: NCTM, in press.

N. *What is Mathematics? A Pedagogical Answer to a Philosophical Question.* Harel, G.. In R. B. Gold & R. Simons (Eds.), *Current Issues in the Philosophy of Mathematics from the Perspective of Mathematicians*, Mathematical Association of America, 2008.

O. Blum, W., Galbraith, P. L., Henn, H-W. and Niss, M. (Eds) *Applications and Modeling in Mathematics Education*, ICMI Study 14. Amsterdam: Springer.

II. College Readiness

A. ACT College Readiness Benchmarks™ last retrieved July 14, 2009, from http://www.act.org/research/policymakers/pdf/benchmarks.pdf

B. ACT College Readiness Standards™

C. ACT National Curriculum Survey™

D. Adelman, Cliff. *The Toolbox Revisited: Paths to Degree Completion From High School Through College*, 2006. http://www.ed.gov/rschstat/research/pubs/toolboxrevisit/index.html

E. *Advanced Placement Calculus, Statistics and Computer Science Course Descriptions. May 2009, May 2010.* College Board, 2008.

F. *Aligning Postsecondary Expectations and High School Practice: The Gap Defined* (Policy Implications of the ACT National Curriculum Survey Results 2005-2006). Last retrieved July 14, 2009, from www.act.org/research/policymakers/pdf/NCSPolicyBrief.pdf

G. *Condition of Education, 2004: Indicator 30, Top 30 Postsecondary Courses, U.S. Department of Education,* 2004.

H. *Condition of Education, 2007: High School Course-Taking*. U.S. Department of Education, 2007.

I. Conley, D.T. *Knowledge and Skills for University Success*, 2008.

J. Conley, D.T. *Toward a More Comprehensive Conception of College Readiness*, 2007.

K. *Crisis at the Core: Preparing All Students for College and Work.* ACT, Last retrieved July 14, 2009, from www.act.org/research/policymakers/pdf/crisis_report.pdf

L. Achieve, Inc., Florida Postsecondary Survey, 2008.

M. Golfin, Peggy, et. al. CNA Corporation. *Strengthening Mathematics at the Postsecondary Level: Literature Review and Analysis*, 2005.

N. Camara, W.J., Shaw, E., and Patterson, B. (June 13, 2009). First Year English and Math College Coursework. College Board: New York, NY (Available from authors).

O. CLEP Precalculus Curriculum Survey: Summary of Results. The College Board, 2005.

P. College Board Standards for College Success: Mathematics and Statistics. College Board, 2006. http://www.collegeboard.com/prod_downloads/about/association/academic/mathematics-statistics_cbscs.pdf.

Q. Miller, G.E., Twing, J., and Meyers, J. "Higher Education Readiness Component (HERC) Correlation Study." Austin, TX: Pearson.

R. *On Course for Success: A Close Look at Selected High School Courses That Prepare All Students for College and Work.* ACT. Last retrieved July 14, 2009, from www.act.org/research/policymakers/pdf/success_report.pdf

S. *Out of Many, One: Towards Rigorous Common Core Standards from the Ground Up*. Achieve, 2008.

T. *Ready for College and Ready for Work: Same or Different?* ACT. Last retrieved July 14, 2009, from www.act.org/research/policymakers/pdf/ReadinessBrief.pdf

U. *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, 2004. http://www.achieve.org/ReadyorNot

V. Rigor at Risk: Reaffirming Quality in the High School Core Curriculum. ACT, Last retrieved July 14, 2009, from www.act.org/research/policymakers/pdf/rigor_report.pdf

W. *The Forgotten Middle: Ensuring that All Students Are on Target for College and Career Readiness before High School.* ACT, Last retrieved July 14, 2009, from http://www.act.org/research/policymakers/reports/ForgottenMiddle.html

X. Achieve, Inc., Virginia Postsecondary Survey, 2004.

III. Career Readiness

A. ACT Job Skill Comparison Charts

B. Achieve's Mathematics at Work, 2008. http://www.achieve.org/mathatwork

C. *The American Diploma Project Workplace Study*. National Alliance of Business Study, 2002.

D. Carnevale, Anthony and Desrochers, Donna. *Connecting Education Standards and Employment: Course-taking Patterns of Young Workers,* 2002.

http://www.edroundtable.state.in.us/pdf/adp/ADPWorkplaceStudy.pdf

E. Colorado Business Leaders Top Skills, 2006.

F. *Hawai'i Career Ready Study: access to living wage careers from high school*, 2007.

G. *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, 2004. http://www.achieve.org/ReadyorNot

H. States' Career Cluster Initiative. *Essential Knowledge and Skill Statements*, 2008.

I. WorkKeys Occupational Profiles™

http://www.act.org/workkeys/profiles/occuprof/index.html

IV. International Documents

STANDARDS [High performing countries/countries of interest]

A. Alberta

Alberta Learning, *Pure Mathematics 10–20–30 (Senior High)*, 2002. (Grades 10-12)

B. Belgium

Department for Educational Development: Core Curriculum. (Grades 9-10 and 11-12) Retrieved June 24, 2009 from http://www.ond.vlaanderen.be/dvo/english/corecurriculum/corecurriculum.htm

C. China

Compulsory mathematics curriculum for senior secondary, as submitted to the APEC consortium. (Grades 10-12) Last retrieved July 13, 2009, from http://www.apecknowledgebank.org/file.aspx?id=1895

D. Chinese Taipei

- Curriculum Guidelines for the Required Subject Math in Senior High Schools, as submitted to the APEC consortium. (Grades 10-11) Last retrieved July 13, 2009 from http://www.apecknowledgebank.org/file.aspx?id=1900
- Curriculum Guidelines for the Elective Subject Math (I) in Senior High Schools, as submitted to the APEC consortium. (Grades 12) Last retrieved July 13, 2009, from http://www.apecknowledgebank.org/file.aspx?id=1901

E. England

Qualifications and Curriculum Authority. *Programme of Study for Key Stage 4, National Curriculum,* 2007. (Grades 10-11)

F. Finland

Finnish National Board of Education. *National Core Curriculum For Upper Secondary Schools 2003.* (Grades 10-12)

G. Hong Kong

Learning Objectives for Key Stage 4. (Grades 10-11)

H. India

- *The National Curriculum Framework,* 2005. (Grades 9-12). National Council of Educational Research and Training. Last retrieved July 13, 2009, from http://ncert.nic.in/html/pdf/schoolcurriculum/framework05/prelims.pdf
- *Secondary School Curriculum, (2010).* (Grades 9-10). Central Board of Education.
- *Senior School Curriculum, (2010).* (Grades 11-12). Central Board of Secondary Education.

I. Ireland

- *Junior Certificate Mathematics Syllabus (Higher, Ordinary and Foundation Level).* (Grades 7-9). National Council for Curriculum and Assessment, 2000.
- The Leaving Certificate *Mathematics Syllabus. (Higher, Ordinary and Foundation Level).* (Grades 10-12). National Council for Curriculum and Assessment, 2000.

J. Japan

The Courses of Study in Japan, Provisional and Unofficial Translation, 2004, as submitted to the APEC consortium. (Grades 10-12). Last retrieved July 13, 2009, from http://www.apecknowledgebank.org/file.aspx?id=1896.

K. Korea

The Seventh National School Curriculum, as submitted to the APEC consortium. (Grades 7-10). Last retrieved July 13, 2009, from http://www.apecknowledgebank.org/file.aspx?id=1897 and http://www.apecknowledgebank.org/file.aspx?id=1898

L. Singapore

Secondary Mathematics Syllabuses, 2007, as submitted to the APEC consortium. (Grades ≈7-10/11). Last retrieved July 13, 2009, from http://www.moe.gov.sg/education/syllabuses/sciences/files/maths-secondary.pdf.

ASSESSMENTS [Key international assessments with global reach]

A. Program for International Student Assessment (PISA), 2006.

B. Trends in International Mathematics and Science Study (TIMSS), 2007.

C. International Baccalaureate, Mathematics Standard Level, 2006.

D. University of Cambridge International Examinations: General Certificate of Secondary Education in Mathematics, 2009.

E. EdExcel, General Certificate of Secondary Education, Mathematics, 2009.

F. Lundsgaard Hansen, Birthe and Vagn. Reference levels in School Mathematics, Education in Europe, National Presentation, Denmark, 2001. Last retrieved July 15, 2009, from http://www.emis.de/projects/Ref/doc_ems_pdf/EMS_NATIONAL_PRESENTATIONS/EMS_DENMARK.pdf

V. State Documents

A. California State Standards

B. Florida State Standards

C. Georgia State Standards

D. Massachusetts State Standards

E. Mathematics Curriculum Framework Revision Panel [Revised Progress Report]. Massachusetts Department of Elementary and Secondary Education, 2009. Last retrieved July 15, 2009, from http://www.doe.mass.edu/boe/docs/0509/item5_report.pdf.

F. Minnesota State Standards

Evidence for Individual Math Standards

What follows is a sample of sources consulted in the drafting of the core math standards. Citations are organized by the standard to which they pertain. For example, all sources with specific relevance to standard #2 (Number) are listed below that standard. Each citation contains a link to the section of the source document that is relevant to the core math standard to which it corresponds. For more information on sources and how they were used in the drafting of the math standards, please refer to the "College and Career Readiness Standards for Mathematics."

1. Mathematical Practice

2. Number

National Reports

- *NAEP Math Framework 2009* – Number Properties and Operations Strand (p. 7-8 description, standards follow)
- AMATYC, *Crossroads* - Standard C-1 Number Sense
- NCTM, *Focal Points* - Number and Operations Focal Points
- NCTM *Principles and Standards* - Number and Operations Standard

College Readiness

- ACT *College Readiness Standards* - Basic Operations and Applications; Numbers: Concepts & Properties
- *Advanced Placement Computer Science*, Statistics and Computer Science Course Descriptions - Computer Science Prerequisite (p.7)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Computation Strand (p.31-32), Mathematical Reasoning (p. 35-37)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Middle School Math Standards p.iii
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Number sense and Numerical Operations Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Number Strand p. 3
- **Belgium** - 2 Number theory and algebra strand
- **China** - Numbers and Algebra strand
- **Chinese Taipei** - 1. Numbers and Coordinate system, pgs. 31-32
- **England** - Number and Algebra
- **Hong Kong** - Number and Algebra Dimension
- **India** - Number Systems Unit, Grade 9
- **Ireland** – Leaving Certificate - Arithmetic
- **Japan** - Math I course
- **Korea** - Strand A Numbers and Operations
- **Singapore** - Topic 1 Numbers and Algebra
- Program for International Student Assessment (PISA), (2006) - Quantity Overarching Idea (p. 89-92)
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Number
- International Baccalaureate, Mathematics Standard Level, (2006) - Prior Knowledge (Number and Algebra)

Evidence for Individual Math Standards

- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra I
- **Florida** - State Standards – Algebra
- **Georgia** - State Standards - Number and Operations (throughout)
- **Massachusetts** - State Standards - Number Sense and Operations
- **Minnesota** - State Standards - Algebra Strand

3. Quantity

National Reports

- *NAEP Math Framework 2009* – Measurement Strand (p. 13-14 description, standards follow. Strand called "Geometry and Measurement" in grade 12)
- AMATYC, *Crossroads* - Standard C-3: Geometry
- NCTM, *Focal Points* - Number and Operations and Measurement Focal Points
- NCTM *Principles and Standards* - Measurement Standard

College Readiness

- ACT *College Readiness Standards* - Numbers: Concepts & Properties; Measurement
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - General Foundation Skills (Natural Science Standards) (p.44)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Number sense and Numerical Operations

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Number Strand
- **China** - Numbers and Algebra ; Space and Figures Strands
- **England** - Geometry and Measures Strand
- **Hong Kong** - Measures, Shape and Space Dimension
- **Singapore** - Topic 1 Numbers and Algebra; Topic 2 Geometry and Measurement
- Program for International Student Assessment (PISA), (2006) - Quantity Overarching Idea
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Number
- International Baccalaureate, Mathematics Standard Level, (2006) - Prior Knowledge (Number and Algebra), pgs. 2-3
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Shape, space and measures

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Throughout Measurement and Geometry strand in K-7 (e.g. p. 32)
- **Florida** - State Standards – Algebra; Financial Literacy
- **Massachusetts** - State Standards - Measurement
- **Minnesota** - State Standards - Geometry and Measurement Strand

4. Expressions

Evidence for Individual Math Standards

National Reports

- *NAEP Math Framework 2009* – Number Properties and Operations Strand (p. 7-8 description, standards follow); Algebra Strand (p. 30-31 description, standards follow)
- AMATYC, *Crossroads* - Standard C-2: Symbolism and Algebra
- NCTM, *Focal Points* - Number and Operations and Algebra Focal Points
- NCTM *Principles and Standards* - Number and Operations Standard; Algebra Standard

College Readiness

- ACT *College Readiness Standards* - Expressions, Equations & Inequalities
- *Advanced Placement Calculus*, Statistics and Computer Science Course Descriptions - Calculus Prerequisite (p.6); Statistics Prerequisite (p.6); Computer Science Prerequisite (p.7)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Computation Strand (p.31-32); Algebra Strand (p32-34)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Algebra I Standards (p.v); Algebra II Standards (p.vii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Algebra Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Patterns and Relations Strand
- **Belgium** - 2 Number theory and algebra Strand
- **China** - Numbers and Algebra strand
- **Chinese Taipei** - 3. Polynomials, pgs. 32-33
- **England** - Number and Algebra
- **Finland** - MAB1 Expressions and equations
- **Hong Kong** - Number and Algebra Dimension
- **India** - Algebra Unit, Grade 10
- **Ireland** – Leaving Certificate - Algebra
- **Japan** - Math I course p. 59
- **Korea** - Strand B Variables and Expressions
- **Singapore** - Topic 1 Numbers and Algebra
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Algebra
- International Baccalaureate, Mathematics Standard Level, (2006) - Prior Knowledge (Number and Algebra)
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra I; Algebra II
- **Florida** - State Standards – Algebra
- **Georgia** - State Standards –Mathematics 3, Algebra
- **Massachusetts** - State Standards - Patterns, Relations and Algebra
- **Minnesota** - State Standards - Algebra Strand

5. Equations

National Reports

Evidence for Individual Math Standards

- *NAEP Math Framework 2009* – Number Properties and Operations Strand (p. 7-8 description, standards follow); Algebra Strand (p. 30-31 description, standards follow)
- AMATYC, *Crossroads* - Standard C-2: Symbolism and Algebra
- NCTM, *Focal Points* - Number and Operations and Algebra Focal Points
- NCTM *Principles and Standards* - Number and Operations Standard; Algebra Standard

College Readiness

- ACT *College Readiness Standards* - Expressions, Equations & Inequalities
- *Advanced Placement Calculus*, Statistics and Computer Science Course Descriptions - Calculus Prerequisite (p.6); Statistics Prerequisite (p.6); Computer Science Prerequisite (p.7)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Computation Strand (p.31-32); Algebra Strand (p32-34)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Algebra I Standards (p.v); Algebra II Standards (p.vii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Algebra Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes – Patterns and Relations Strand
- **Belgium** - 2 Number theory and algebra Strand
- **China** - Numbers and Algebra strand
- **Chinese Taipei** - 3. Polynomials, pgs. 32-33
- **England** - Number and Algebra
- **Finland** - MAB1 Expressions and equations
- **Hong Kong** - Number and Algebra Dimension
- **India** - Algebra Unit
- **Ireland** – Leaving Certificate - Algebra
- **Japan** – Math I course; Math II course
- **Korea** - Strand B Variables and Expressions
- **Singapore** - Topic 1 Numbers and Algebra
- Program for International Student Assessment (PISA), (2006) - Change and Relationships Overarching Idea (p. 86-89)
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Algebra
- International Baccalaureate, Mathematics Standard Level, (2006) - Functions and Equations, pgs. 4-5; Prior Knowledge (Number and Algebra), pgs. 2-3
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra I; Algebra II
- **Florida** - State Standards – Algebra
- **Georgia** - State Standards – Mathematics 3, Algebra
- **Massachusetts** - State Standards - Patterns, Relations and Algebra
- **Minnesota** - State Standards - Algebra Strand

6. Functions

National Reports

Evidence for Individual Math Standards

- NAEP *Math Framework 2009* – Number Properties and Operations Strand (p. 7-8 description, standards follow); Algebra Strand (p. 30-31 description, standards follow)
- AMATYC, *Crossroads* - Standard C-4: Function
- NCTM, *Focal Points* - Algebra Focal Points
- NCTM *Principles and Standards* - Algebra Standard

College Readiness

- ACT *College Readiness Standards* – Functions
- *Advanced Placement Calculus*, Statistics and Computer Science Course Descriptions - Calculus Prerequisite (p.6); Statistics Prerequisite (p.6); Computer Science Prerequisite (p.7)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Algebra Strand (p32-34)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Algebra II Standards (p.vii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Algebra Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Patterns and Relations Strand
- **Belgium** - 3 Real functions
- **China** - Numbers and Algebra strand
- **Chinese Taipei** - 4. Exponent and logarithm; 5. The basic concept of trigonometric functions, pgs. 33-34
- **England** - Number and Algebra
- **Finland** - MAB3 Mathematical Models 1; MAB4 Mathematical analysis; MAB6 Mathematical Models II
- **Hong Kong** - Number and Algebra Dimension
- **India** - Sets and Function, Grade 11
- **Ireland** – Leaving Certficate, Functions and Calculus
- **Japan** - Math I course; Math II course
- **Korea** - Strand D Functions
- **Singapore** - Topic 1 Numbers and Algebra
- Program for International Student Assessment (PISA), (2006) - Change and Relationships Overarching Idea
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Algebra
- International Baccalaureate, Mathematics Standard Level, (2006) - Functions and Equations, pgs. 4-5
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra II
- **Florida** - State Standards – Algebra
- **Georgia** - State Standards – Mathematics 3, Algebra
- **Massachusetts** - State Standards - Patterns, Relations and Algebra
- **Minnesota** - State Standards - Algebra Strand

7. Modeling

National Reports

Evidence for Individual Math Standards

- NAEP *Math Framework 2009* - Algebra Strand (p. 30-31 description, standards follow)
- AMATYC, *Crossroads* - Standard C-4: Function
- NCTM, *Focal Points* - Algebra Focal Points
- NCTM Principles and Standards - Algebra Standard

College Readiness

- ACT *College Readiness Standards* - Expressions, Equations & Inequalities
- *Advanced Placement Calculus,* Calculus Course Descriptions - Calculus Prerequisite (p.6)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Algebra Strand (p32-34)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Algebra II (p.vii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Algebra Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Patterns and Relations Strand
- **China** - Numbers and Algebra Strand
- **England** - Number and Algebra
- **Finland** - MAB3 Mathematical Models 1; MAB6 Mathematical Models II
- **India** - Mathematical Modeling
- **Singapore** - Topic 1 Numbers and Algebra
- Program for International Student Assessment (PISA), (2006) - Change and Relationships Overarching Idea (p. 86-89)
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Algebra
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra I
- **Florida** - State Standards - Algebra
- **Georgia** - State Standards - Mathematics 3, Algebra
- **Massachusetts** - State Standards - Patterns, Relations and Algebra
- **Minnesota** - State Standards - Algebra Strand

8. Shape

National Reports

- *NAEP Math Framework 2009* – Geometry Strand (p. 17-19 description, standards follow. Strand called "Geometry and Measurement" in grade 12)
- AMATYC, *Crossroads* - Standard C-3: Geometry
- NCTM, *Focal Points* - Geometry and Measurement Focal Points
- NCTM *Principles and Standards* - Geometry Standard

College Readiness

- ACT *College Readiness Standards* - Properties of Plane Figures; Measurement
- *Advanced Placement Calculus,* Calculus Course Descriptions - Calculus Prerequisite (p.6)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Geometry (p.34-35)

Evidence for Individual Math Standards

- *College Board Standards for College Success:* Mathematics and Statistics. College Board, (2006) - Geometry Standards (p. vi)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Geometry Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Shape and Space Strand
- **Belgium** - 4 Geometry
- **China** - Mathematics 2; Space and Figures Strand
- **Chinese Taipei** – 6. Characters and application of trigonometric (sic), pg. 34; 2. Straight line and plane of space; 4. Conic section, pgs. 35-36
- **England** - Geometry and Measures Strand
- **Finland** - MAB2 Geometry
- **Hong Kong** - Measures, Shape and Space Dimension
- **India** - Geometry Unit
- **Ireland** - Geometry
- **Japan** - Math II Course; Math A Course
- **Korea** - Strand C Geometry
- **Singapore** - Topic 2 Geometry and Measurement (starting on page 7)
- Program for International Student Assessment (PISA), (2006) - Space and Shape Overarching Idea (p.83-86)
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Geometry
- International Baccalaureate, Mathematics Standard Level, (2006) - Prior Knowledge (Geometry), pgs. 3
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Shape, space and measures

Illustrative Alignment with State and Other Standards

- **California** - State Standards – Geometry
- **Florida** - State Standards – Geometry
- **Georgia** - State Standards -Mathematics 2, Geometry
- **Massachusetts** - State Standards - Geometry
- **Minnesota** - State Standards - Geometry and Measurement Strand

9. Coordinates

National Reports

- *NAEP Math Framework 2009* – Geometry Strand (p. 17-19 description, standards follow. Strand called "Geometry and Measurement" in grade 12)
- AMATYC, *Crossroads* - Standard C-3: Geometry
- NCTM, *Focal Points* - Geometry and Measurement Focal Points
- NCTM *Principles and Standards* - Geometry Standard

College Readiness

- ACT *College Readiness Standards* - Graphical Representations
- *Advanced Placement Calculus,* Calculus Course Descriptions - Calculus Prerequisite (p.6)
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Geometry (p.34-35)

Evidence for Individual Math Standards

- College Board Standards for College Success: Mathematics and Statistics. College Board, (2006) - Algebra I Standards (p.v); Algebra II Standards (p.vii)
- Ready or Not: Creating a High School Diploma That Counts. American Diploma Project, (2004) - Geometry Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Shape and Space Strand
- **Belgium** - 4 Geometry
- **China** - Mathematics 2; Space and Figures Strand
- **Chinese Taipei** – First Year, 1. Numbers and Coordinate system, pgs. 31-32; Second Year, 1. Vector, pg. 35
- **England** - Geometry and Measures Strand ; Number and Algebra
- **Finland** - MAB2 Geometry
- **Hong Kong** - Measures, Shape and Space Dimension
- **India** - Geometry and Mensuration Units
- **Ireland** - Coordinate Geometry
- **Japan** – Math II Course; Math B Course
- **Korea** - Strand C Geometry
- **Singapore** - Topic 2 Geometry and Measurement
- Program for International Student Assessment (PISA), (2006) - Space and Shape Overarching Idea; Change and Relationships Overarching Idea
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Algebra; Geometry
- International Baccalaureate, Mathematics Standard Level, (2006) - Prior Knowledge (Number and Algebra, and Geometry), pgs. 2-3
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Number and Algebra; Geometry

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra I; Geometry
- **Florida** - State Standards – Algebra
- **Georgia** - State Standards - Geometry
- **Massachusetts** - State Standards - Geometry
- **Minnesota** - State Standards - Geometry and Measurement Strand

10. Probability

National Reports

- *NAEP Math Framework 2009* – Data Analysis, Statistics and Probability Strand (p. 24-25 description, standards follow)
- AMATYC, *Crossroads* - Standard C-5: Discrete Mathematics, Standard C-6: Probability and Statistics
- NCTM *Principles and Standards* - Data Analysis & Probability Standard

College Readiness

- ACT College Readiness Standards - Probability, Statistics & Data Analysis [link to ACT_CollegeReadinessStandards_p10-17.pdf]
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Research & Analysis (Social Science Standards), section B (p.64)

Evidence for Individual Math Standards

- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Geometry Standards (p. vi); Algebra II Standards (p. vii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Data Interpretation, Statistics and Probability Strand

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Statistics and Probability Strand
- **Belgium** - 5 Statistics
- **China** - Mathematics 3; Statistics and Probability Strand
- **Chinese Taipei** – Second Year, 5 Permutation and Combination, p. 37
- **England** - Statistics Strand
- **Finland** - MAB5 Statistics and Probability
- **Hong Kong** - Data Handling Dimension
- **India** - Statistics and Probability Unit, Grade 11
- **Ireland** Discrete Mathematics and Counting
- **Japan** - Math A Course; Math C Course
- **Korea** - Strand E Probability and Statistics
- **Singapore** - Topic 3 Statistics and Probability
- Program for International Student Assessment (PISA), (2006) - Uncertainty Overarching Idea
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Data and Chance
- International Baccalaureate, Mathematics Standard Level, (2006) - Statistics and Probability, pgs. 6-8
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Handling Data

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Algebra II; Probability and Statistics
- **Florida** - State Standards – Probability
- **Georgia** - State Standards – Mathematics 3, Data Analysis and Probability
- **Massachusetts** - State Standards - Data Analysis, Statistics, and Probability
- **Minnesota** - State Standards - Data Analysis & Probability

11.Statistics

National Reports

- NAEP *Math Framework 2009* – Data Analysis, Statistics and Probability Strand (p. 24-25 description, standards follow)
- AMATYC, *Crossroads* - Standard C-6: Probability and Statistics
- NCTM, *Focal Points* - Data Analysis Focal Points
- NCTM Principles and Standards - Data Analysis & Probability Standard

College Readiness

- ACT *College Readiness Standards* - Probability, Statistics & Data Analysis
- Conley, D.T. (2008). *Knowledge and Skills for University Success* - Statistics (p.37)
- *College Board Standards for College Success*: Mathematics and Statistics. College Board, (2006) - Middle School Math Standards (p.iii); Algebra I Standards (p.v); Precalculus Standards (p.viii)
- *Ready or Not: Creating a High School Diploma That Counts.* American Diploma Project, (2004) - Data Interpretation, Statistics and Probability Strand

Evidence for Individual Math Standards

Illustrative International Benchmarks

- **Alberta** - General Outcomes - Statistics and Probability Strand
- **Belgium** - 5 Statistics
- **China** - Mathematics 3; Statistics and Probability Strand
- **Chinese Taipei** – Second Year, 6 Probability and Statistic, pg. 37-38
- **England** - Statistics Strand
- **Finland** - MAB5 Statistics and Probability
- **Hong Kong** - Data Handling Dimension
- **India** - Statistics and Probability Unit, Grade 11
- **Ireland** - Discrete Mathematics and Counting (p.27 and 28)
- **Japan** - Math B Course; Math C Course
- **Korea** - Strand E Probability and Statistics
- **Singapore** - Topic 3 Statistics and Probability
- Program for International Student Assessment (PISA), (2006) - Uncertainty Overarching Idea
- Trends in International Mathematics and Science Study (TIMSS), (2007) - Data and Chance
- International Baccalaureate, Mathematics Standard Level, (2006) - Statistics and Probability, pgs. 6-8
- EdExcel, General Certificate of Secondary Education, Mathematics, (2009) - Handling Data

Illustrative Alignment with State and Other Standards

- **California** - State Standards - Probability and Statistics
- **Florida** - State Standards – Statistics
- **Georgia** - State Standards - Mathematics 3, Data Analysis and Probability
- **Massachusetts** - State Standards - Data Analysis, Statistics, and Probability
- **Minnesota** - State Standards - Data Analysis & Probability

Quantity

Core Concepts

A The value of a quantity is not specified unless the units are named or understood from the context.

B Quantities can be added and subtracted only when they are of the same type (length, area, speed, etc.).

C Quantities can be multiplied or divided to create new types of quantities, called derived quantities.

Core Skills

1. Know when and how to convert units in computations.
2. Use and interpret quantities and units correctly in algebraic formulas.
3. Use and interpret quantities and units correctly in graphs and data displays.
4. Use units as a way to understand problems and to guide the solution of multi-step problems.

Example Tasks

1. **Core Concept A.**

   The following question was posted on an Internet gardening forum:

   > I am trying to figure out how many yards of soil I need for my gardens but have no idea how much a yard of soil actually is. The nursery says they deliver 6 yards in a dump truck. I realize that a yard is 3 feet. But what is a yard of soil—is that 3 feet long and 3 feet high? I'm clueless! LOL

   Write a helpful response to the person who posted this question.

2. **Core Concept B, Core Skill 2.**

   A textbook printed the following formula for the surface area of a cylinder:

   $$SA = 2\pi r + 2\pi rh\,.$$

   Kim had never studied geometry, but she knew there must be a typographical error in this formula. How could she tell?

3. **Core Concept B, Core Skill 4.**

   As a flooring contractor, Lupe sets floor tile for a living. She submits a bid for each new job. When preparing a bid, she measures the area of the floor to be tiled and then figures out how much material she will need. She charges the following prices for materials and labor:

   - Subflooring: \$1.27 per square foot
   - Tile: \$6.59 per square foot
   - Adhesive: \$31.95 per job
   - Grout: \$55.95 per job
   - Labor: \$125 base price plus \$0.79 per square foot

   For a job tiling an area of 550 square feet, what is the amount of the bid, based on the materials listed above?

4. **Core Concept C.**

   If there are 8×10^{12} hydrogen molecules in a volume of 4×10^{4} cubic centimeters, what is the average number of hydrogen molecules per cubic centimeter?

5. **Core Concept C.**

   The Trans Alaska Pipeline System is 800 miles long and cost \$8 billion to build. Divide one of these numbers by the other. What is the meaning of the answer?

6. **Core Skill 1.**

   Signs in Canada give the speed limit in kilometers per hour. If the speed limit is 100 km/hr, and you're driving at a speed of 65 mph, are you over or under the speed limit? By how much?

7. **Core Skill 1.**

   Greenland has a population of 56,700 and a land area of 2,175,600 square kilometers. By what factor is the population density of the United States, 80 persons per square mile, larger than the population density of Greenland?

8. **Core Skill 1; Core Skill 4; Number Core Skill 2; Number Core Skill 3; Number Core Skill 5.**

   A doctor orders Ceclor elixir for a child who weighs 9.3 kg. The child must receive 25 mg of

the drug for each kilogram of body weight. The hospital pharmacy stocks Ceclor elixir in a concentration of 250 mg per 5 ml.

How many milliliters of the stock elixir should the child receive?

(a) Estimate the answer mentally. (Suggestion: approximate the child's weight as 10 kg.)
(b) Compute the answer to the nearest tenth of a milliliter.

9. **Core Skill 2, Core Skill 4.**

The distance traveled by a freely falling object dropped from rest is given by the formula $s = \frac{1}{2} g t^2$. Here s is the distance fallen, g is a constant representing the earth's surface gravity, and t is the duration of time over which the object falls. If s has units of meters and t has units of seconds, what must be the units of g? If we interpret g as a rate of change, what sort of quantity is changing with time? What does this mean about the speed of a freely falling object?

10. **Core Skill 2; Equations Core Skill 3.**

The *ideal gas law* is a mathematical relationship that describes the pressure, volume, and temperature of an ideal gas in thermal equilibrium:

$$pV = nRT.$$

In the ideal gas law, p stands for pressure, V stands for volume, n is the number of moles of gas, R is a constant equal to $0.0821 \frac{\text{L}\cdot\text{atm}}{\text{mol}\cdot\text{K}}$, and T stands for temperature measured in the Kelvin temperature scale.

(a) Find the temperature of 0.520 mol of argon gas occupying a volume of 4.25 L at a pressure of 0.987 atm.
(b) If the volume stays the same as in (a), but the pressure drops by half, then what must have happened to the temperature?

11. **Core Skill 4.**

According to *Runner's World* magazine,

> On average the human body is more than 50 percent water. Runners and other endurance athletes average around 60 percent. This equals about 120 soda cans' worth of water in a 160-pound runner!

Check out the *Runner's World* calculation. Are there really about 120 soda cans' worth of water in the body of a 160-pound runner? Here are some facts:

- A typical soda can holds 12 fluid ounces.
- 16 ounces (one pint) of water weighs one pound.

12. **Core Skill 4.**

A liquid weed-killer comes in four different kinds of bottles. The accompanying table gives information about the concentration, size, and price of the bottles. The "concentration" refers to the percent of "active ingredient" in the bottle. The rest of the liquid in the bottle is water. For example, bottle B contains $(0.18)(32) = 5.76$ fl. oz. of active ingredient and $32 - 5.76 = 26.24$ fl. oz. water.

Table 1 *Weed killer comes in four different kinds of bottles.*

	Concentration	Amount in Bottle	Price of Bottle
A	0.96%	64 fl. oz.	$12.99
B	18.0%	32 fl. oz.	$29.99
C	41.0%	32 fl. oz.	$39.99
D	0.96%	24 fl. oz.	$5.99

(a) Rank the four bottles in order of how good a buy each represents. State what criterion you are using.
(b) Suppose a job calls for a total of 12 fl. oz. of active ingredient. How much would you need to spend if you bought Type A bottles? Type B bottles? Type C bottles? Type D bottles?

13. **Core Skill 4.**

A table in a construction manual lists the "k-values" of different building materials. The k-value measures how easily heat flows through a material. The k-value of concrete is given as

$$0.002 \frac{\text{BTU}\cdot\text{in}}{\text{hr}\cdot\text{ft}^2\cdot{}^\circ\text{F}}$$

A BTU is a unit of heat energy.

The construction manual gives the following example problem illustrating the k-value:

> How many BTUs of heat energy would be lost through a 100 ft^2 concrete wall 6 inches thick over a 12 hour period, if the temperature difference from one side of the wall to the other is 70°F?

Your friend Anders doesn't know much about construction—or about heat loss—yet he was able to get the answer, 28 BTUs, just by thinking about units. How did he get the answer?

14. **Core Skill 3**.

Each graph in the accompanying figure shows the relationship between distance traveled and time for a different train (Train A, Train B, and Train C).

Which train was traveling fastest during the interval of time shown? Justify your answer.

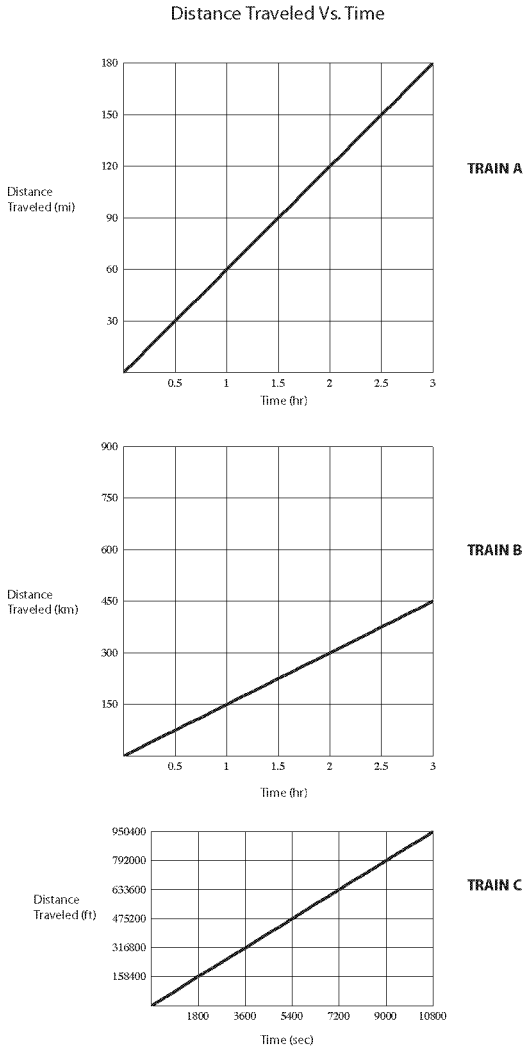


Figure 1

Sources

1. Zimba, Jason
2. Zimba, Jason
3. Charles A. Dana Center. (2009). *Algebra I Assessments* (2nd ed.). Austin: Author.
4. ACT, Inc.
5. Zimba, Jason
6. Zimba, Jason
7. Zimba, Jason
8. Adapted from *Ready or Not: Creating a High School Diploma That Counts*. Achieve copyright 2004.
9. Zimba, Jason
10. Adapted from *Ready or Not: Creating a High School Diploma That Counts*. Achieve copyright 2004.
11. communicated by Phil Daro
12. communicated by Phil Daro
13. Zimba, Jason
14. Zimba, Jason

Expressions

Core Concepts

A Expressions are constructions built up from numbers, variables, and operations, which have a numerical value when each variable is replaced with a number.

B Complex expressions are made up of simpler expressions.

C The rules of arithmetic can be applied to transform an expression without changing its value.

D Rewriting expressions in equivalent forms serves a purpose in solving problems.

Core Skills

1. See structure in expressions.
2. Manipulate simple expressions.
3. Define variables and write an expression to represent a quantity in a problem.
4. Interpret an expression that represents a quantity in terms of the context.

Example Tasks

1. **Core Concept A.**
   It is given that p = 4×10^5 and $q = 8 \times 10^6$. Expressing your answers in standard form, find
   (a) $\frac{p}{q}$.
   (b) $\sqrt[3]{q}$.

2. **Core Concept A.**
   Replace x by 16 in each of the following expressions and then simplify to an exact expression without using a calculator.
   (a) $3x - 48$
   (b) $3(x - 48)$
   (c) $\sqrt{x + 9}$
   (d) $\sqrt{x} + \sqrt{9}$
   (e) $|x - 20| + (x - 20)$

3. **Core Concept A.**
   Simplify:
   (a) $3(x - 2) + x[4 - 3(x - 7)]$
   (b) $\dfrac{(a^3)^5}{(a^7)^2}$
   Partially check your answers by making appropriate calculations using $x = -5$, $x = 3$, $a = 2$, $a = -2$.

4. **Core Concept A.**
   It is given that $x = a + \sqrt{a^2 + b^2}$.
   (a) Calculate x when $a = 0.73$ and $b = 1.84$. Give your answer correct to 2 decimal places.
   (b) Express b in terms of x and a.

5. **Core Concept A, Core Skill 3.**
   Write an expression representing each of the following sequences of operations on a number x.
   - Multiply x by 5 then add 1.
   - Add 8 to x then multiply your answer by 5
   - Add 3 to x then divide your answer by 4
   - Multiply x by x then multiply your answer by 7
   - Multiply x by 3 then square your answer

6. **Core Concept A, Core Concept B, Core Skill 2, Core Skill 3, Core Skill 4.**
   As a flooring contractor, Lupe sets floor tile for a living. She submits a bid for each new job. When preparing a bid, she measures the area of the floor to be tiled and then figures out how much material she will need. She charges the following

prices for materials and labor:
Subflooring: \$1.27 per square foot

Tile: \$6.59 per square foot
Adhesive: \$31.95 per job
Grout: \$55.95 per job
Labor: \$125 base price plus \$0.79 per square foot.

Write an expression to determine the total cost of the materials and labor for a typical job in terms of the number of square feet. Explain what the numbers and symbols in the expression mean.

7. **Core Concept B.**
Describe the parts of each expression.

(a) $\left(\frac{l_1 + l_2}{2}\right) w$ (b) $(a-b)^2-(a+b)^2$
(c) $\frac{1}{\frac{1}{R_1} + \frac{1}{R_2}}$.
COMMENTS ON SOLUTION:
For example, the expression in (a) is a product of two factors, the first of which is a quotient where the numerator is a sum.

8. **Core Concept C; Core Concept D; Core Skill 3; Core Skill 4.**
Ask the apprentice to mix a solution (#1) of 5 g Peters fertilizer and 50 g of distilled water.

- Determine the percent concentration-by-weight of this solution.
The basic formula is *Weight of the solute divided by the combined weight of the solute and solvent equals percent concentration-by-weight.*
Example: $5g \div (5g+50g) = 5g \div 55g \approx 0.09$ or 9% concentration-by-weight.
- Calculate the density of this solution (#1).
Divide the weight by the volume to determine the density in gm/ml.

Ask the apprentice to make a solution (#2) using 10 g of Peters and 50 g of distilled water.

- Determine the percent concentration-by-weight.
- Ask the apprentice: Why is the concentration-by-weight of solution #2 not double the concentration-by-weight of solution #1 since the solute is doubled?

$$C = \frac{x}{x+V} \quad \text{and} \quad \frac{2x}{2x+V} \neq 2\frac{x}{x+V}.$$

- Ask the apprentice to use the formula to explain.

9. **Core Concept C.**
Simplify each expression without evaluating each term. (Use the rules of arithmetic.)
(a) $12 \times 17 - 3 \times 24 - 6 \times 22$
(b) $(4 \times 17 + 3 \times 12) - 2 \times (12 + 17)$
(c) $(4a + 3b) - 2(b + a) + 1 - b$
(d) $(20 + 1) \times (20 - 1)$
(e) $(a + 1)(a - 1)$

10. **Core Concept C; Core Concept D; Core Skill 1; Core Skill 4.**
Which calculations show the correct number of small squares in Figure 1? Draw diagrams to explain the meaning of the other expressions.
(a) $4+6\times4$ (b) $4\times4+6$ (c) $4\times(4+6)$
(d) 4^2+6 (e) $4\times2+6$ (f) $4^2+4\times6$
(g) $4\times2+4\times6$

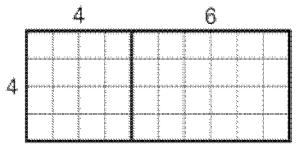


Figure 1

11. **Core Concept D.**
Evaluate
(a) $a + 2b + 3(a + b) + 2a$ when $a = -\frac{13}{3}, b = \frac{7}{5}$
(b) $7c - 2d + 3 - 5c - d - 2c$ when $c = \frac{9}{2}, d = -1$
(c) $3x+y+3-3(x+y)$ when $x = 1, y = -1$

COMMENTS ON SOLUTION:

Note that it can advantageous to expand and rearrange terms before evaluating.

12. **Core Concept D; Core Skill 1.**

Use Figure 2 to explain why the following expressions are equivalent:

$$(n+2)^2 - 4 \quad \text{and} \quad n^2 + 4n$$

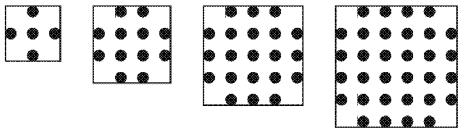


Figure 2

13. **Core Concept D; Core Skill 1.**

Write a possible identity for Line n, and show how it fits the pattern for each line in the list given.

(a)
- Line 1: $1 \times 3 = 2 + 1$
- Line 2: $2 \times 4 = 4 + 4$
- Line 3: $3 \times 5 = 6 + 9$
- Line 4 $4 \times 6 = 8 + 16$
- Line 5: $5 \times 7 = 10 + 25$

(b)
- Line 1: $1 - 1 = 2 \times 0$
- Line 2: $4 - 1 = 3 \times 1$
- Line 3: $9 - 1 = 4 \times 2$
- Line 4: $16 - 1 = 5 \times 3$
- Line 5: $25 - 1 = 6 \times 4$

14. **Core Concept D; Core Skill 1.**

The height of a thrown horseshoe depends upon the time that has elapsed since its release. Its height (measured in feet) as a function of time (measured in seconds) from the instant of release is

$$1\frac{3}{16} + 18t - 16t^2.$$

The expressions (a)–(d) below are equivalent. Which is most useful for finding the maximum height of the horseshoe's path, and why is it the most useful expression?

(a) $1\frac{3}{16} + 18t - 16t^2$

(b) $-16\left(t - \frac{19}{16}\right)\left(t + \frac{1}{16}\right)$

(c) $\frac{1}{16}(19 - 16t)(16t + 1)$

(d) $-16\left(t - \frac{9}{16}\right)^2 + \frac{100}{16}$.

15. **Core Skill 1.**

Which of the following is a factor of the polynomial below?

$$4x^3y - 8x^2y^2 + 10xy^3$$

(a) $4y^2$ (b) $2x^2$
(c) $2xy$ (d) x^2y^2

16. **Core Skill 1.**

Factorise completely: $6cx - 3cy - 2dx + dy$.

17. **Core Skill 1.**

A physics professor says: "Of course, it is easy to see that $L_0\sqrt{1 - \frac{v^2}{c^2}} = 0$ when $v = c$." Give a possible explanation in terms of the structure of this expression why the professor might say that.

18. **Core Skill 1.**

Give an explanation in terms of the structure of the expression

$$\frac{s}{\sqrt{n}}$$

why it halves in value when n is quadrupled.

19. **Core Skill 1.**

Which of (i)–(iv) would be the most productive first step in factoring expressions (a)–(f)?

(i) Finding a common factor
(ii) Expressing as a difference of two squares
(ii) Expressing as a perfect square
(iv) None of the above.

(a) $4x^2 + 5x$ (b) $36x^2 - 25y^2$
(c) $x^4 - y^4$ (d) $x^2 + 6xy + 9y^2$
(e) $x^2 + 5x + 4$ (f) $0.5x^2 - 2.5x - 7$

20. **Core Skill 1.**

When $(3u^2+au+5)(u^{10}+2u^4-bu^2)$ is written as a polynomial in u,

(a) what is the highest degree?

(b) for which powers of u are the terms nonzero?

COMMENTS ON SOLUTION:

Terms occur in degrees 2, 3, 4, 5, 6, 10, 11, 12 and the total (largest) degree is 12. This problem reinforces the structure-exploiting scanning procedure for finding products of sums with almost no arithmetic. Qualitative information of this sort is used to focus or avoid quantitative work.

21. **Core Skill 1.**

Find the y^3 term in

$$(3y^3 - y^2 + 5ay)(y^2 + 2y - a)$$

when it is written as a polynomial in y.

COMMENTS ON SOLUTION:

This term comes from products of a summand from the first factor and a summand from the second that give total y exponent 3. The y^3 is fixed and can be factored out ahead of time. Scanning and picking out the terms of interest gives

$$y^3\big[(3)(-a) + (-1)(2) + (5a)(1)\big]$$

- The expression just above has not been simplified, illustrating the idea that organizational and arithmetic tasks should be separated.
- Computing the whole polynomial and discarding unneeded terms requires far more work. The problem formulation therefore provides an incentive to understand the qualitative structure of products of sums.

22. **Core Skill 1.**

If $a \neq b$ and $\dfrac{1}{x} + \dfrac{1}{a} = \dfrac{1}{b}$, then $x =$

(a) $\dfrac{1}{b} - \dfrac{1}{a}$ (b) $b - a$

(c) $\dfrac{1}{ab}$ (d) $\dfrac{a-b}{ab}$

(e) $\dfrac{ab}{a-b}$

COMMENTS ON SOLUTION:

Although the problem can be solved by routine manipulation, it is quicker to solve for a student who sees structural reasons for eliminating some or all of the wrong choices.

23. **Core Skill 2.**

Factorise completely

(a) $15a^2 + 12a^3$,

(b) $1 - 16b^2$.

24. **Core Skill 2.**

Perform manipulations such as the following with procedural fluency:

$$(a+b)^2 = a^2 + 2ab + b^2$$
$$(a-b)^2 = a^2 - 2ab + b^2$$
$$(a+b)(a-b) = a^2 - b^2$$
$$(x+a)(x+b) = x^2 + (a+b)x + ab$$

25. **Core Skill 2.**

Simplify

$$\frac{a^{-2}b^2c}{a^2b^{-3}c^2}$$

26. **Core Skill 2.**

Simplify $\sqrt{x^9t^6}$ for $x > 0, t > 0$.

27. **Core Skill 3.**

A shopkeeper sells pens and pencils. Each pen costs \$5 and each pencil costs \$3. One day he sold x pens. On the same day he sold 9 more pens than pencils.

(a) Write down an expression, in terms of x, for his total income from the sale of these pens and pencils.

(b) This total income was less than \$300. Form an inequality in x and solve it.

(c) Hence write down the maximum number of pens that he sold.

28. **Core Skill 3.**

Suppose x adults and y children visit a theme park one day. The price of an adult ticket is a dollars and the price of a child's ticket is b dollars. Write an algebraic expression for:

(a) The total number of adults and children who visit the park that day.

(b) The cost in dollars of 2 adult tickets and 3 child tickets.

29. **Core Skill 3.**

Sam makes and sells mirrors. She makes a frame for each mirror with small square ceramic tiles. Find an expression for the number of tiles needed to border a size n frame.

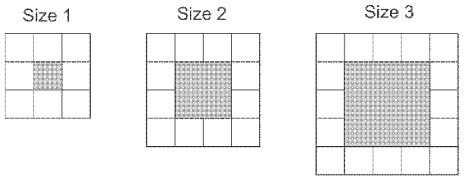


Figure 3

30. **Core Skill 3.**

A soccer tournament is being arranged. A number of teams have entered. Every team will play every other team twice: once at home and once away. Find an expression for the number of matches that will need to be played if N teams enter the tournament. Explain how you can be sure that your expression will work for all values of N.

COMMENTS ON SOLUTION:

There are N locations where games are played, one for each team. Furthermore, the number of games played at each location is $N-1$, because each team plays a home game with every other team. Thus the total number of games is $N(N-1)$.

31. **Core Skill 3; Core Skill 4.**

Consider the following statement about a positive integer n: The sum of any n consecutive integers is divisible by n.

For which values of n is the statement true? For which is it false? Prove that your answers are correct.

32. **Core Skill 3, Core Skill 4, Mathematical Practise 2.**

Prove that the sum of two odd integers is an even integer.

COMMENTS ON SOLUTION:

Let n and m be two odd integers. Since n is odd, it is one more than an even integer, so $n = 2k + 1$ for some integer k. By the same reasoning, $m = 2l + 1$ for some integer l. Therefore, the sum of n and m is

$$\begin{aligned} n + m &= (2k + 1) + (2l + 1) \\ &= 2k + 2l + 2 = 2(k + l + 1). \end{aligned}$$

So $n + m$ is 2 times the integer $k + l + 1$, and therefore it is even.

33. **Core Skill 4.**

Suppose x adults and y children visit a theme park one day. The price of an adult ticket is a dollars and the price of a child's ticket is b dollars. Interpret the following in everyday language:

(a) $a = 3b$
(b) $ax + by < 1000$

34. **Core Skill 4.**

In (a)–(d), give all values of a and n satisfying the condition, where a is real and n is a positive integer.

(a) $-a$ is positive
(b) $\sqrt{5-a}$ is defined
(c) $\frac{1}{a}$ is an integer
(d) a^n is negative

Sources

1. University of Cambridge International Examinations
2. Fristedt, Bert
3. Fristedt, Bert
4. University of Cambridge International Examinations
5. Reproduced with the permission of America's Choice

6. Charles A. Dana Center. (2009).*Algebra I Assessments* (2nd ed.). Austin: Author.
7. McCallum, William
8. *Ready or Not: Creating a High School Diploma That Counts.* Achieve copyright 2004.
9. Tony Gardiner
10. Reproduced with the permission of America's Choice
11. Tony Gardiner
12. Reproduced with the permission of America's Choice
13. Reproduced with the permission of America's Choice
14. Adapted from Focus in High School Mathematics: Reasoning and Sense Making, copyright 2009 by the National Council of Teachers of Mathematics. All rights reserved.
15. Massachusetts Department of Elementary and Secondary Education
16. University of Cambridge International Examinations
17. McCallum, William
18. McCallum, William
19. Adapted from Washington Office of the Superintendent of Public Instruction
20. Developed by Frank Quinn for the Working Group on Preparation for Technical Careers project of the American Mathematical Society.
21. Developed by Frank Quinn for the Working Group on Preparation for Technical Careers project of the American Mathematical Society.
22. College Board
23. University of Cambridge International Examinations
24. Japanese Research Team for U.S.-Japan Comparative Research on Science Mathematics and Technology Education, The Courses of Study in Japan, Oct. 2004 (Provisional and Unofficial Translation).
25. Washington Office of the Superintendent of Public Instruction
26. Zimba, Jason
27. University of Cambridge International Examinations
28. Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS)
29. Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS)
30. Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS)
31. Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS)
32. Washington Office of the Superintendent of Public Instruction
33. Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS)
34. Washington Office of the Superintendent of Public Instruction

Equations

Core Concepts

A An equation is a statement that two expressions are equal.

B The solutions of an equation are the values of the variables that make the resulting numerical statement true.

C The steps in solving an equation are guided by understanding and justified by logical reasoning.

D Equations not solvable in one number system may have solutions in a larger number system.

Core Skills

1. Understand a problem and formulate an equation to solve it.
2. Solve equations in one variable using manipulations guided by the rules of arithmetic and the properties of equality.
3. Rearrange formulas to isolate a quantity of interest.
4. Solve systems of equations.
5. Solve linear inequalities in one variable and graph the solution set on a number line.
6. Graph the solution set of a linear inequality in two variables on the coordinate plane.

Example Tasks

1. **Core Concept A.**
   Are the following equations?
   (a) $y = x^2 + 3x + 2$
   (b) $x^2 + 3x + 2 = 0$
   (c) $x^2 + 3x + 2 = (x + 1)(x + 2)$
   (d) $\left(x + \frac{3}{2}\right)^2 - \frac{1}{4}$
   (e) $x = -2$

2. **Core Concept B.**
   What are the solutions of the equation below?

$$2n(3n - 12) = 0$$

   (a) 0 and 4 (b) 0 and 12
   (c) 2 and 4 (d) 2 and 12

3. **Core Concept B, Core Skill 6.**
   The shaded region inside the triangle ABC is defined by three inequalities. One of these is $x + y < 5\frac{1}{2}$.

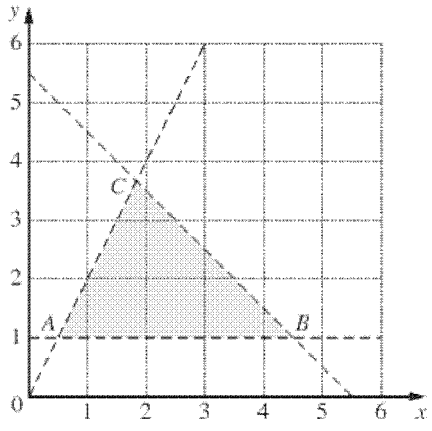


Figure 1

   (a) Write down the other inequalities.
   (b) How many points, with integer coordinates, lie in the shaded region?

4. **Core Concept B.**
   In (a)–(c), does the equation have a solution? Give a reason for your answer that does not depend on solving the equa-

tion.

(a) $\dfrac{t+2}{3+t} = 1$ (b) $\dfrac{3+t}{3-t} = 1$

(c) $\dfrac{t-2}{2-t} = 1$

5. **Core Concept C.**

A student performs the following steps in solving an equation:

$$\frac{x+3}{2x+6} = 1$$
$$x+3 = 2x+6$$
$$x = -3$$

Is the solution correct? If yes, explain why. If no, explain what was wrong with the student's reasoning.

6. **Core Concept C.**

If the equations

$$3x + 2y + 2z = 19$$
$$3x + y + z = 14$$

are true, which of the following is the value of $y + z$?

(a) -5 (b) -4 (c) 0
(d) 4 (e) 5

7. **Core Concept D.**

Write an equation or inequality that has

(a) no real solutions;
(b) infinite numbers of real solutions; and
(c) exactly one real solution.

8. **Core Concept D.**

In (a)–(f), how many solutions are there? Are they rational, real, or complex? Give a reason for your answer that does not depend on solving the equation.

(a) $(x+3)^2 = 9$
(b) $(x-3)^2 = 9$
(c) $-(x-3)^2 = 9$
(d) $16 - (x-3)^2 = 9$
(e) $9(x+3)^2 = 0$
(f) $(x+3)^2 = (x+4)^2$

9. **Core Skill 1.**

One firm offers an investment plan that pays a flat rate of 10% interest each year on the original sum invested. So each dollar grows after n years to

$$(1 + \frac{10n}{100}) \text{ dollars.}$$

Another firm offers a plan that pays 5% interest each year on the previous year's balance. So each dollar grows after n years to

$$(1 + \frac{5}{100})^n \text{ dollars.}$$

Find, using a graphing calculator or a spreadsheet, when the two offers give roughly equal returns. Which is better in the long term?

10. **Equations: Core Skill 1, Core Skill 2; Functions: Core Skill 4.**

Quinn works in Chicago and in New York City. He travels by taxi in each of the two cities.

In Chicago, he pays a fixed taxi fare of $\$1.90$ per ride, plus $\$1.60$ per mile traveled.

(a) Write an equation that expresses f, Quinn's total fare for a taxi ride in Chicago, as a function of m, the number of miles traveled.

In New York City, Quinn pays a fixed taxi fare of $\$1.50$ per ride, plus 25 cents per $\frac{1}{10}$ mile traveled.

(b) Write an equation that expresses f, Quinn's total fare for a taxi ride in New York City, as a function of m, the number of miles traveled.

(c) On a recent trip Quinn noticed that the total number of miles traveled by taxi from the airport to the hotel was the same in each of the two cities. Before tips were added, his taxi fare to the hotel in New York City was $\$12.20$ more than his taxi fare to the hotel in Chicago. What was the distance from the airport to the hotel in each city? Show or explain how you got your answer.

11. **Core Skill 1, Core Skill 4.**
'Give me 8 sheep and then we will have an equal number' said one shepherd to another. 'No, you give me 8 sheep and then I will have twice as many as you' replied another shepherd. How many sheep did each shepherd have to start with?

12. **Core Skill 1, Core Skill 4.**
(The Abbot of Canterbury's Puzzle: AD 735–804)
One hundred bushels of corn were distributed among one hundred people in such a way that each man received three bushels, each woman received two bushels, and each child received half a bushel. Given that there were five times as many women as men, how many children were there?

13. **Core Skill 2.**
Solve the equations
(a) $\frac{24}{x-4} = 1$,
(b) $12 - 2(5 - y) = 5y$.

14. **Core Skill 2.**
Solve the following quadratic equations using factoring methods:
(a) $2x^2+x-3 = 0$ (b) $4x^2 + 6x = 0$
(c) $36x^2 - 25 = 0$ (d) $x^2+6x+9 = 0$

15. **Core Skill 2.**
Use the quadratic formula to solve $4x^2 - 2x = 5$.

16. **Core Skill 3.**
The distance d travelled after time t at a steady speed v is given by

$$d = vt.$$

(a) How long would it take to travel 150 miles at 60 miles per hour?
(b) How fast would you have to go to do it in one and a half hours?

17. **Core Skill 3.**
Solve $A = p + prt$ for p.

18. **Core Skill 3.**
The distance D that it takes a car moving at speed v to stop is given by

$$D = rv + \frac{v^2}{2a}$$

where r is the reaction time it takes the driver to hit the brakes and a is the breaking deceleration.
(a) If r is 2 seconds and $a = 5$ meters/sec^2, how far would the car travel when stopping from 50 meters/sec?
(b) Solve the given equation to find an expression for v in terms of D, r and a. If you want to stop within 100 meters, how fast can you safely go?

COMMENTS ON SOLUTION:
Part (b) goes beyond the scope of Core Skill 3, and illustrates the extension of this task into later course work.

19. **Core Skill 4.**
Solve the simultaneous equations

$$\begin{cases} 2x - y = 16 \\ 3x + 2y = 17. \end{cases}$$

20. **Core Skill 4.**
The only coins that Alexis has are dimes and quarters.
- Her coins have a total value of \$5.80.
- She has a total of 40 coins.

Which of the following systems of equations can be used to find the number of dimes, d, and the number of quarters, q, that Alexis has?
(a)

$$\begin{aligned} d + q &= 5.80 \\ 40d + 40q &= 5.80 \end{aligned}$$

(b)

$$\begin{aligned} d + q &= 40 \\ 5.80d + 5.80q &= 40 \end{aligned}$$

(c)

$$\begin{aligned} d + q &= 5.80 \\ 0.10d + 0.25q &= 40 \end{aligned}$$

(d)

$$d + q = 40$$
$$0.10d + 0.25q = 5.80$$

21. **Core Skill 4.**
Solve the following system of equations:

$$\begin{cases} 2x - y - z = 7 \\ 3x + 5y + z = -10 \\ 4x - 3y + 2z = 4. \end{cases}$$

22. **Core Skill 5.**
Solve $|x - 6| \leq 4$ and locate the solution on the number line.

23. **Core Skill 5.**
Solve $8.5 < 3x + 2 \leq 9.7$ and locate the solution on the number line.

24. **Core Skill 1, Core Skill 5.**
Mr. Smith uses the following formula to calculate students' final score C in his Algebra II class: $C = 0.4E + 0.6T$, where E represents the score on the final exam, and T represents the average score of all tests given during the grading period. All tests and the final exam are worth a maximum of 100 points. The minimum passing score on tests, the final exam, and the course is 60. Determine the inequalities that describe the following situation. When necessary, round scores to the nearest tenth.
(a) Is it possible for a student to have a failing test score average (i.e., $T < 60$ points) and still pass the course?
(b) If you answered "yes," what is the minimum test score average a student can have and still pass the course? What final exam score is needed to pass the course with a minimum test score average?
(c) A student has a particular test score average. How can (s)he figure out the minimum final exam score needed to pass the course?

25. **Core Skill 3.**
If oil should ever be spilled into the Columbia River Estuary, the company responsible for the spill would be liable for monetary damages according to a formula. By Washington state law, the formula in 2009 was given by:[1]

$$D = 0.508GS(A + B + C)$$

In this formula, D is the damage liability in dollars; G is the number of gallons spilled; S is a "vulnerability score" in the range from 1 to 5 that takes into account the wildlife characteristics of any given square kilometer of the estuary[2]; and A, B and C are "chemical penalty scores" in the range from 1 to 5 that take into account the toxicity, harmful mechanical properties, and longevity of the material spilled. For example, kerosene has a toxicity score $A = 1.4$, a harmful mechanical property score $B = 2.4$, and a longevity score $C = 1$.[3] Suppose that a company responsible for a kerosene spill in an area of lowest vulnerability is held liable for \$10 million. How many gallons were spilled? How many dollars per gallon was the company charged for the spill? In general, what is a formula for the number of dollars of liability per gallon of spill? What is the maximum possible liability in dollars per gallon?

Sources

1. McCallum, William
2. Massachusetts Department of Elementary and Secondary Education
3. University of Cambridge International Examinations

[1] http://apps.leg.wa.gov/WAC/default.aspx?cite=173-183-840
[2] see http://apps.leg.wa.gov/wac/default.aspx?cite=173-183-500
[3] http://apps.leg.wa.gov/WAC/default.aspx?dispo=true&cite=173-183&full=true.

4. McCallum, William
5. McCallum, William
6. College Board
7. Washington Office of the Superintendent of Public Instruction
8. McCallum, William
9. Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS)
10. Massachusetts Department of Elementary and Secondary Education
11. Gardiner, Tony
12. Gardiner, Tony
13. University of Cambridge International Examinations
14. Washington Office of the Superintendent of Public Instruction
15. Washington Office of the Superintendent of Public Instruction
16. Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS)
17. Washington Office of the Superintendent of Public Instruction
18. Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS)
19. University of Cambridge International Examinations
20. Massachusetts Department of Elementary and Secondary Education
21. Washington Office of the Superintendent of Public Instruction
22. Washington Office of the Superintendent of Public Instruction
23. Washington Office of the Superintendent of Public Instruction
24. Washington Office of the Superintendent of Public Instruction
25. Zimba, Jason

Modeling

Core Concepts

A Mathematical models involve choices and assumptions that abstract key features from situations to help us solve problems.

B Even very simple models can be useful.

Core Skills

1. Model numerical situations.
2. Model physical objects with geometric shapes.
3. Model situations with equations and inequalities.
4. Model situations with common functions.
5. Model situations using probability and statistics.
6. Interpret the results of applying a model and compare models for a particular situation.

The Modeling standard needs discussion in relation to the other standards. For example, what is the difference between a *geometry task* versus *a modeling task that uses geometry*? What is the difference between a contextualized algebra problem and a modeling problem that uses equations to describe a situation?

In these standards, a task is considered to belong more in Modeling, the more it is the case that:

- The math techniques to be used are not stated explicitly in the problem.
  - However, beginning/developmental modeling tasks can walk the student through the techniques, as a way to show their use.
- Various assumptions must be imposed by the student to apply the techniques; these assumptions are not explicitly stated in the problem; and differing sets of assumptions could all be considered reasonable.
- The task involves making a decision about something.
- The task involves an optimization of some kind.
- The context is not a pretext. While the task inevitably teaches mathematics, its primary focus is the situation or phenomenon at hand. See the figure below (after a diagram by Malcom Swann, in Muller and Burkhardt, 2006).

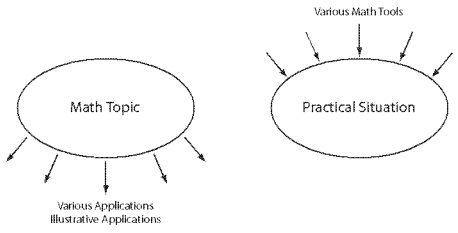


Figure 1

- The phenomenon or situation is interesting or worthwhile beyond the academic discourse of the classroom.

A list of criteria such as this one does not define a hard-and-fast rule that could be used to unambiguously classify tasks. The distinction between *geometry* and *modeling with geometry* is a heuristic one. Moreover, few, if any, of the following Modeling tasks satisfy all of the listed criteria. But each task fulfills one or more of these criteria to a great enough extent to be considered an example of Modeling.

Reference

E. Muller and H. Burkhardt, Application and Modelling for Mathematics—Overview. In W. Blum and P.L. Galbraith (Eds.), *Modelling and Applications in Mathematics Education: The 14th ICMI Study*, Springer, 2006. http://books.google.com/books?id=XICuY-BFaHYC.

Example Tasks

1. **Core Concept A; Core Skill 2.**
   If everyone in the world went swimming in Lake Michigan, what would happen to the water level? (Would Chicago be flooded?)
2. **Core Concept A; Core Skill 2; Core Skill 7.**
   The Federal Communications Commission (FCC) needs to assign radio frequencies to seven new radio stations located on the grid in the accompanying figure. Such assignments are based on several considerations including the possibility of creating interference by assigning the same frequency to stations that are too close together. In this simplified situation it is assumed that broadcasts from two stations located within 200 miles of each other will create interference if they broadcast on the same frequency, whereas stations more than 200 miles apart can use the same frequency to broadcast without causing interference with each other. The FCC wants to determine the smallest number of frequencies that can be assigned to the six stations without creating interference.

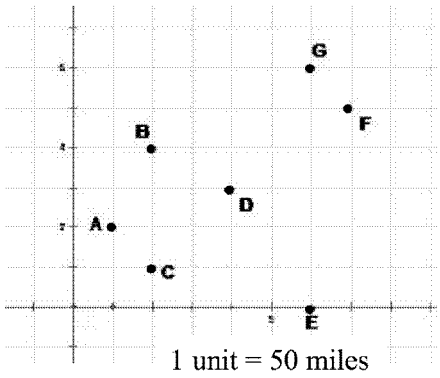


Figure 2

- Student 1 began thinking about the problem by drawing a circle of radius 200 miles centered on each radio station.
- Student 2 began thinking about the problem by drawing line segments to connect pairs of radio stations whenever the two radio stations are within 200 miles of one another.
- Student 3 began thinking about the problem by drawing line segments to connect pairs of radio stations whenever the two radio stations are more than 200 miles from one another.

Which approach seems most promising to you? Use this approach to determine the smallest number of frequencies that can be assigned to the six stations without creating interference. Justify your final answer.

3. **Core Concept A; Core Skill 2; Core Skill 3; Core Skill 5; Equations Core Concept A; Equations Core Skill 3.**

Picture a tightly rolled spool of paper. Everyday examples might include a roll of bathroom tissue or a roll of cash-register tape. See the accompanying figure.

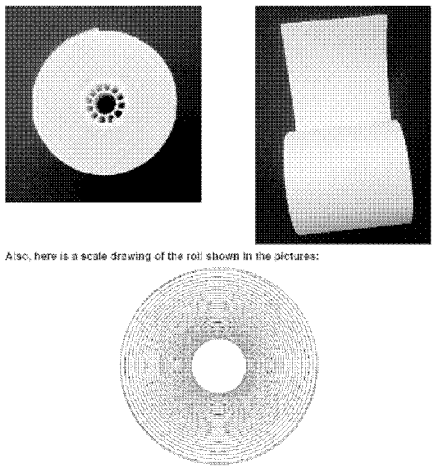


Figure 3

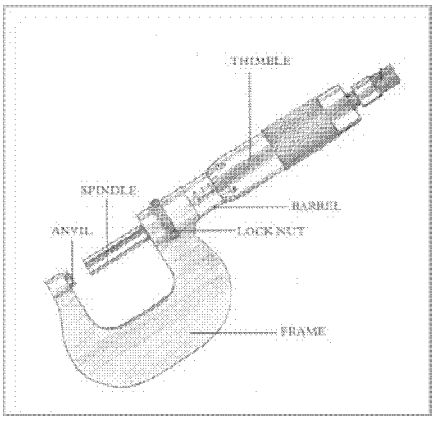


Figure 4

(a) Assuming the paper in the roll is very thin, what is the relationship between the thickness of the paper, the inner and outer diameters of the roll, and the length of the paper in the roll? Express your answer as an algebraic formula involving the four listed variables.

(b) A roll of masking tape is another example of a tightly rolled spool. In one classroom, layers of masking tape of various thicknesses were measured using a micrometer, a tool for measuring small distances (see the photo; image from http://www.design-technology.org/CDT10micrometer.htm). The table below shows the micrometer readings.

Table 1

Number of Tape Layers	0	1	2	3	4	5	6	7
Thickness (millimeters)	0.1	0.24	0.37	0.49	0.6	0.71	0.81	0.92

When you look at the first column of the table, you may wonder why zero layers of tape have a thickness of 0.1 millimeters! The reason is that these measurements were made by sticking pieces of tape to a sheet of paper (see the photo below). So the first value in the table simply represents the thickness of the piece of paper.

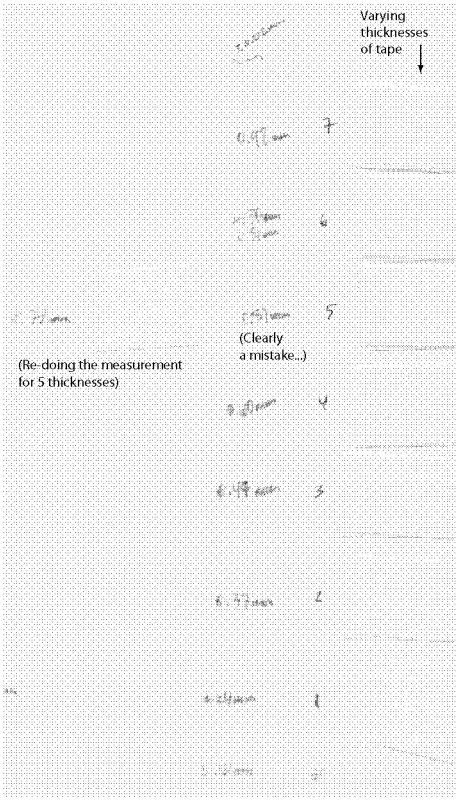


Figure 5

(i) Estimate the thickness of a single layer of tape by subtracting values in the first and second rows of Table 1.

(ii) Make a scatterplot of the data in Table 1.

(iii) Draw a straight line that you think best describes the pattern in your scatter plot.

(iv) Find the equation of this line. Explain how you determined your equation.

(v) Use your equation to estimate the thickness of a single piece of tape.

(vi) Which estimate of the thickness of a single piece of tape do you think is more accurate, the one you found in Question (i) or the one you found in Question (v)? Why?

(vii) What is your best estimate of the thickness of the paper in this experiment?

(viii) In a roll of masking tape, the inner radius is 60 millimeters and the outer radius is 80 millimeters. Using the thickness value determined in Question (v), how long is this roll of tape?

4. **Core Concept A; Core Concept B; Core Skill 1.**

- In a country with 300 million people, about how many high school math teachers will be needed? Try to estimate a sensible answer using your own everyday knowledge about the world. Write an explanation of your answer, stating any assumptions you make.
- Likewise, estimate the number of people born each day on planet earth.
- Likewise, estimate the percentage of Americans who are pregnant at any given time. Also estimate the percentage of elephants who are pregnant at any given time.

5. **Core Concept B; Core Skill 1.**
Suppose you wrote check #556 on November 5, 1995, and check #953 on September 26, 1997. What is a good guess for when you wrote check #678?

6. **Core Skill 1.**
The accompanying figure shows a conversation that occurred during a cross-country road trip.

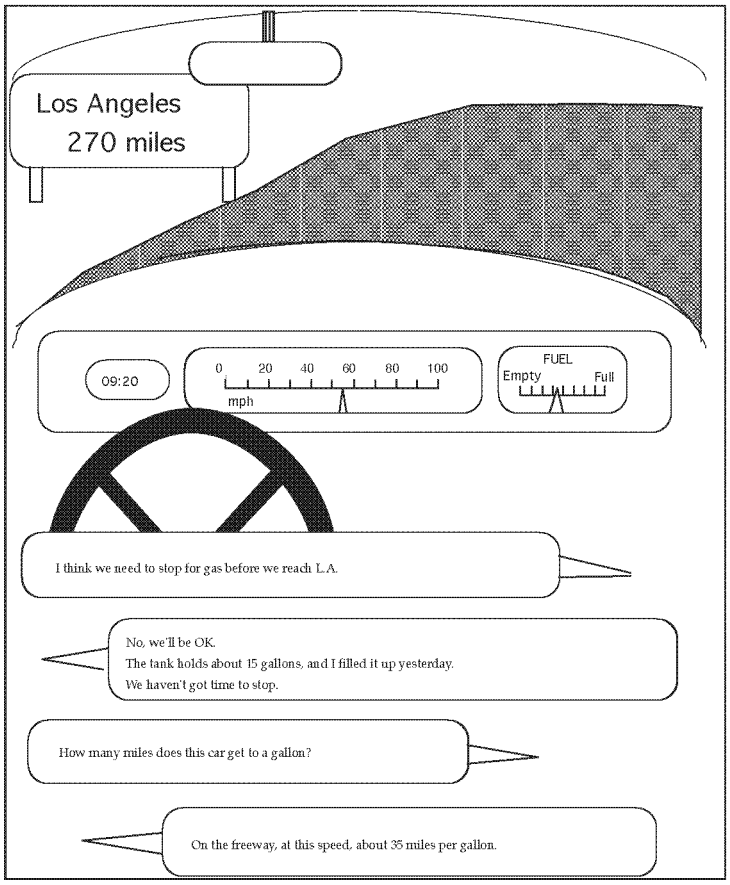


Figure 6

(a) Do they have to stop for gas? Explain your reasoning.
(b) Suppose they decide to stop for 30 minutes. At what time will they reach Los Angeles?

7. **Core Skill 1; Core Skill 2; Core Skill 3.**
A team of haymakers was assigned the task of scything two meadows, one twice the size of the other. The team worked half a day on the larger meadow. Then it split into two equal groups. The first group remained in the larger meadow and finished it by evening. The second group scythed the smaller meadow, but by evening there still remained a portion to do. This portion was scythed the next day by one haymaker in a single day's work. How many haymakers were there in the team?

8. **Core Skill 1; Core Skill 3.**
A car does y miles a year, averaging m miles per gallon.
(a) Write a formula for g, the number of gallons used in a year.

(b) If the average price of gas is $\$p$ per gallon, write a formula for the total cost $\$C$.
(c) You are thinking of changing your 15 mpg gas guzzler for a 40 mpg car. If you drive 20,000 miles each year, how much money would you save on gas at \$3 per gallon? How much is this savings per week?

9. **Core Skill 1; Core Skill 3.**
Funds totaling \$191,000 are designated for four schools. The distribution of the funds is to be in proportion to the number of students in each school. Student populations of the four schools are: School A, 386; School B, 1691; School C, 2109; School D, 817.
(a) Figure out how much money each school gets.
(b) Draw some sort of diagram to scale that helps show visually how the money is divided up among the four schools.
(c) Find general formulas for deciding how much money each of the four schools gets in terms of the populations of the schools and the total amount of money to be distributed.
(d) Add your formulas algebraically. What is the result? Does this make sense?

10. **Core Skill 2.**
Ann is moving to Gridville. She's looking for a house to live in. The location of her house-to-be should satisfy the following conditions:
- Ann wants to live close to the office where she works, so the distance from her house to the office should not be more than 2.5 km.
- Because of the terrible smell of the pet food factory, the distance from her house to the factory must be at least 3 km.

(a) Both conditions mention distance. Is distance measured in the same way in both situations? If yes, why? If no, why not?
(b) On the grid provided, graph the area that meets both conditions.

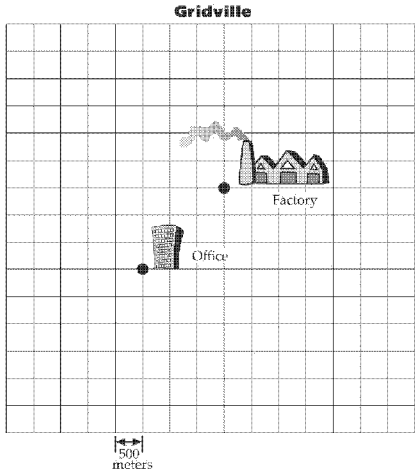


Figure 7

11. **Core Skill 2.**
A poster manufacturing company is considering different ways of making and shipping its posters. The figure below shows two kinds of tubes for posters: square tubes and hexagonal tubes.

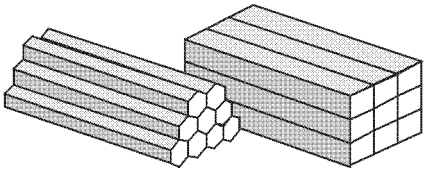


Figure 8

The square tubes are 7.5×7.5 cm, with a length of 75 cm. The hexagonal tubes have the same length of 75 cm but they have a diameter of 9 cm (see figure below).

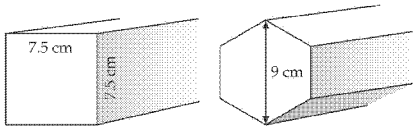


Figure 9

From the customer's perspective, a more tightly rolled poster is harder to flatten and hang on a wall. So a tube that allows the poster to be more loosely rolled is more desirable than a tube that requires the poster to be more tightly rolled. How tightly a poster is rolled is based on the amount of space measured by the largest circle that fits into the tube. See the figure below.

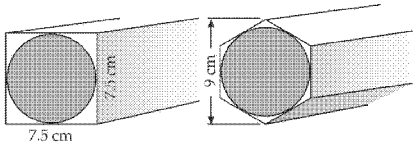


Figure 10

(a) Calculate the area of the circle in the square tube and the area of the circle in the hexagonal tube. Explain your answers.
(b) Calculate the efficiency of both tubes in terms of percentage of space used by the circular poster roll and its interior. Explain your answers.
(c) Based on the information you have now, in which tube do you think the company should pack posters? Why?
(d) The individual hexagonal tubes are packed in a $20 \times 20 \times 75$ cm box (see the Figure below). Calculate the efficiency in terms of the percentage of the box's front that is used by the hexagons.

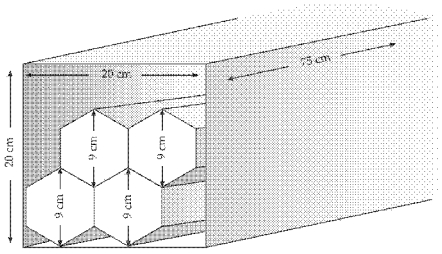


Figure 11

(e) How many of the square tubes will fit in the $20 \times 20 \times 75$ cm box? (You may want to make a sketch to help you decide.)
(f) Calculate the efficiency in terms of the percentage of the box's front that is used by the squares.
(g) Based on the information you have now, in which tube do you think the company should stack posters? Why?
(h) The poster company is considering a larger box for shipping: $45 \times 30 \times 75$ cm.
  (i) How many hexagonal tubes fit in the box?
  (ii) How many square tubes fit in the box?
  (iii) For both the hexagonal tubes and square tubes, find the efficiency in terms of the percentage of the box's front that is used by the hexagons or squares.
(i) Based on the information you have now, in which tube do you think the company should stack posters? Why?

12. **Core Skill 2.**
Based on enrollment predictions school officials have decided that, for the next school year, the classroom trailers will be moved to the current practice football field and a new practice field will be located behind the school parking lot. Including end zones, the practice field will be 120 yards by 53 yards in order to closely approximate a standard field. However, the owner of a local nursery has donated enough grass seed to plant 81,000 square feet. Since they have more than enough grass seed for the practice field, school officials would like to plant a uniform border around the field. What are the dimensions of the 81,000 square feet rectangular area that should be planted for the practice field and uniform border?

13. **Core Skill 2.**
The accompanying figure shows the plan of a city. All curved and straight lines are streets.

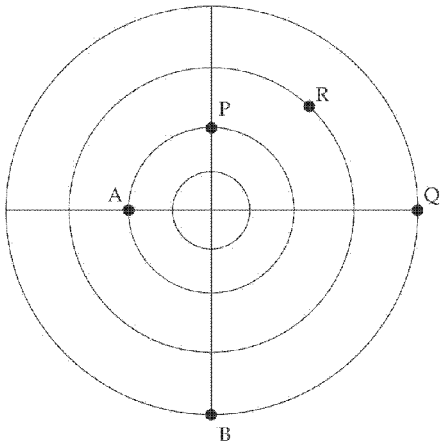


Figure 12

(a) On the figure, draw the shortest route from P to Q and the shortest route from P to R.
(b) On the figure, draw three points that are approximately equidistant from A and B (using streets).
(c) Compare and constrast this type of distance with other types of distance you have studied.

14. **Core Skill 2.**
The accompanying figure is a diagram of a miniature golf hole. Players must start their ball from one of the three tee positions. A wall separates the tees from the hole.

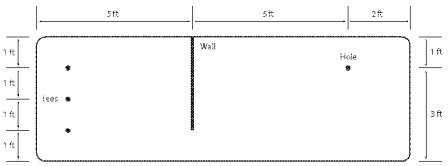


Figure 13

At which tee should the ball be placed to create the shortest "hole in one" path? What is this shortest distance? Explain your reasoning.

15. **Core Skill 2; Core Skill 3.**

All states have building codes. Many such codes can be interpreted as mathematical inequalities, since they establish limits on what can be done.

Most states have codes related to staircase construction (see the photo).

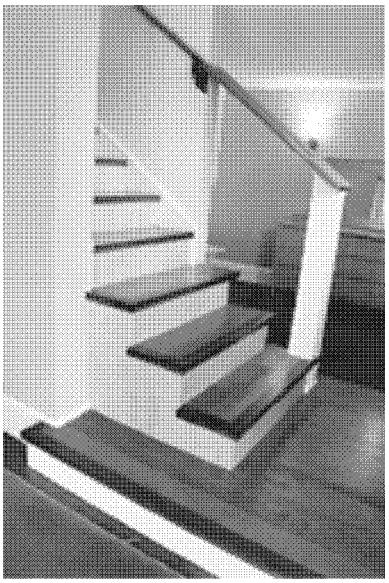


Figure 14

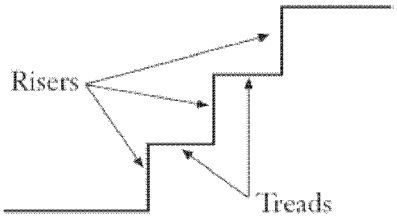


Figure 15

The most basic dimensions of a set of stairs are *riser height* and *tread depth.* A *riser* is the vertical front of a stair. The surface that you step on is called a *tread.* (See the diagram.)

(a) The Massachusetts State Building Code includes this statement:

> Maximum riser height shall be seven inches (178 mm) and minimum riser height shall be four inches (102 mm).

This statement contains two requirements for riser height. Write these requirements in two ways: as a pair of simple inequalities, and also as a compound inequality.

(b) Here is another statement from the Massachusetts State Building Code:

> Minimum tread depth shall be 11 inches (279 mm), measured horizontally between the vertical planes of the foremost projection of adjacent treads at a right angle to the tread's leading edge.

Write this requirement as an inequality.

(c) In addition, most staircases conform to this design guideline:

> The depth of a tread plus two times the height of a riser should have a total value of from 24 to 25 inches.

Write this guideline using inequalities.

(d) Label a suitable coordinate grid. Graph the solution to the system of inequalities regarding staircase riser height and tread depth.

(e) Choose an appropriate point to check your answer.

16. **Core Skill 2; Core Skill 3; Core Skill 4; Quantity; Equations, Core Skill 3.**

A manufacturer wants to design a cylindrical soda can that will hold 500 milliliters of soda. The manufacturer's research has determined that an optimal can radius is between $3\frac{1}{4}$ and 4 centimeters. What is the corresponding range of possible height measurements for the can? Explain your reasoning.

17. **Core Skill 3.**

A group of art students has formed an Arts Collective to organize an arts and crafts exhibition (see photo).

Figure 16

In order to publicize the event, they intend to use two methods. They can print one-page flyers for distribution at schools and malls. The flyers will cost only eight cents each to produce. Another method is to mail postcards about the event to selected people. This option is more expensive: twelve cents for each card plus eighteen cents per card for bulk postage. Postcards are expected to be more effective than flyers. But in order to get the twelve cent rate, they must order at least 1000 cards. The total budget for publicity is $1200.

The students must decide how many flyers to print and how many cards to order. But there are upper and lower limits on the number of each.

(a) What is the lower limit on the number of cards they will order if they want the quantity discount?

(b) Let C represent the number of cards ordered. Write the lower limit as a mathematical inequality.
(c) What is the lower limit on the number of flyers that can be produced?
(d) Let F represent the number of flyers produced. Write the lower limit as an inequality.
(e) One statement in the problem description implies an upper limit on a quantity. Explain.
(f) Write a sentence that describes this upper limit in more detail. Include the phrases "money spent on flyers" and "money spent on cards."
(g) Rewrite your answer to Question (f) as a mathematical inequality in the variables C and F.
(h) Your answers to Questions (b), (d), and (g) taken together form a system of inequalities in C and F. The solution of this system represents the range of publicity options available to the Arts Collective. The solution can be visualized with a graph. Should the boundaries of the solution region be solid lines or dashed lines? Explain.
(i) The inequalities in Questions (b) and (d) should each contain only one variable, so they are probably easier to graph. Label the axes of a two-dimensional coordinate grid with the variables C and F. Then graph the inequalities from Questions (b) and (d).
(j) Now consider the budget limit. If no flyers are produced, how many cards can be bought and mailed?
(k) If the minimum of 1000 cards is used, how many flyers can be made?
(l) Your answers to Questions (j) and (k) can each be represented by a point on the graph. Use these points to graph the boundary that represents the budget limit. Then shade only the region that satisfies all three inequalities.
(m) Check your answer. Choose any point that is inside the shaded region, and verify that its coordinates satisfy all three inequalities.

18. **Core Skill 3.**

A coffee shop sells several kinds of coffee. The shop also uses some of its coffees to make its own custom blends. Coffee A sells for \$6 a pound. Coffee B sells for \$10 a pound. The shop's manager wants to create a blend of the two types that sells for \$7 a pound. The manager wants to make 10 pounds of this blend. How many pounds of each type of coffee should be in the 10 pounds of blend?

19. **Core Skill 3.**

When summer approaches, Desmond and Farid look forward to baseball games, movies, and weekends at the local amusement park. Because all of these things cost money, Desmond and Farid decide to start a lawn service to earn money.

Desmond can devote 10 hours a week to this new venture, while Farid can devote 4 hours. The boys realize it takes less time to trim the edge than to mow, so they decide that Desmond can do all the mowing and Farid can do the edging. After surveying the neighborhood, they determine that their clients will fall into one of two categories: standard-sized interior lots or large corner lots.

From working on their own yards the boys know it will take about an hour to mow and half an hour to edge a standard-sized yard. A larger yard will take 45 minutes to edge and 2 hours to mow.

Based on research he has done in his neighborhood, Desmond wants to set prices at \$20 per large yard and \$15 for each standard-sized yard. Each price is the total price that includes edging and mowing.

On the one hand, the boys might decide to do more large yards, each of which brings more money. Or they might decide to do more standard yards, each of which takes less time. It's not obvious which approach will earn them the most money. The goal of this problem is to find the best approach.

(a) Use the table below to organize the information in the situation:
(b) Using the information in the table to assist you, write a system of inequalities to represent all the constraints that define the boys' problem situation.
(c) Farid and Desmond's goal is to maximize their earnings from the lawn service. Find a formula that expresses their weekly earnings P in terms of x and y.
(d) Graph the system of inequalities representing the constraints and shade the feasible region—the region representing all of the values of x and y that obey all of the constraints.

	x (# of standard yards)	y (# of large yards)	Constraint
Number of hours mowing			
Number of hours edging			

Table 2: Desmond and Farid's situation

(e) What are the vertices of your feasible region? Explain how you found them.

(f) Use the vertices (from Question (e)) and the earnings formula to find the maximum Farid and Desmond can earn in one week with the given constraints.

(g) How many and which size yards will Farid and Desmond need to mow and edge to maximize their earnings?

20. **Core Skill 3**.

This problem is difficult and would merit an extended treatment in class; it is not meant to be one in a series of routine "word problems" on a worksheet.

Two boats (boat 1 and boat 2) start off from opposite sides of a lake, each heading for the starting point of the other. They pass each other 800 yards from the starting point of boat 1. They continue to the starting point of the other boat, turn around, and return. This time, they pass each other 300 yards from the (original) starting point of boat 2. How wide is the lake? (Each boat travels at a fixed speed. Ignore turnaround times.)

21. **Core Skill 3**.

An academic team is going to a state mathematics competition. There are 30 people going on the trip. There are 5 people who can drive and 2 types of vehicles, vans and cars. A van seats 8 people, and a car seats 4 people, including drivers. How many vans and cars does the team need for the trip? Is more than one option available? Explain your reasoning.

22. **Core Skill 4**.

Clara purchased a used car for \$8400. She estimates that each year she owns the car it will depreciate (lose value) by 12% of its value the previous year.

(a) According to Clara's assumption, the car's value after 1 year from the purchase date will be \$7392. Check this yourself.

(b) What will be the car's value 2, 3, and 4 years from the date of purchase?

(c) Clara plans to keep the car until its value reaches \$4000. By Clara's assumption, what is the minimum number of years from the date of purchase that the car's value will be less than \$4000? Show your work.

23. **Core Skill 4**.

If it is never refreshed, the water in a swimming pool becomes polluted after some time. Urea that comes into the water via body secretions is one of the substances that pollute swimming pools.

In this problem, presume an increase in the amount of urea of 500 g per day, caused by 1000 swimmers a day. Suppose the amount of urea present in the water is represented as u.

(a) Find a recursive formula for the quantity of urea in the water (per day).

(b) When there are 4000 g of urea in the water, the swimming pool will be closed to the public because the water has to be cleaned. The cleaning equipment can remove 10% of the amount of urea present in one day, so the first day, 400 g of urea can be removed. The second day, 10% of the remaining amount of urea will be removed, and so on.

(i) What recursive formula describes this process of cleaning?

(ii) How many days does it take before 50% of the 4000 g of urea is removed from the water?

(c) A better method of keeping the amount of urea under control is to let the people swim during the day and

to refresh the water during the night. Starting with a clean pool (no urea in the water), swimmers will add 500 g of urea to the water every day. Every night, 10% of the urea in the pool will be removed.

(i) Calculate the amount of urea in the pool at the beginning of day 2 (after one day of swimming and one night of refreshing).

(ii) Calculate the amount of urea at the beginning of day 3.

(iii) Find a recursive formula for the amount of urea at the beginning of a day.

(iv) Will the amount of urea continue to increase without bound day after day, or will the amount of urea stabilize at some point? Explain how you found this.

24. **Core Skill 4.**

At the You're Toast, Dude! toaster company, the weekly cost to run the factory is \$1400 and the cost of producing each toaster is an additional \$4 per toaster.

(a) Write a function rule representing the weekly cost in dollars, $C(x)$, of producing x toasters.

(b) What is the total cost of producing 100 toasters in one week?

(c) If you produce 100 toasters in one week, what is the total production cost per toaster?

(d) Will the total production cost per toaster always be the same? Justify your answer.

(e) Write a function rule representing the total production cost per toaster $P(x)$ for producing x toasters.

(f) Answer the following questions:

(i) What is the production cost per toaster if 300 toasters are produced in one week? If 500 toasters are produced in one week?

(ii) What happens to the total production cost per toaster as the number of toasters produced increases? Explain your answer.

(iii) How many toasters must be produced to have a total production cost per toaster of \$8?

25. **Core Skill 4.**

A recommended adult dosage of the cold medication NoMoreFlu is 16 mL. NoMoreFlu causes drowsiness when there are more than 4 mL in one's system, in which case it is unsafe to drive, operate heavy machinery, etc. The manufacturer wants to print a warning label telling people how long they should wait after taking NoMoreFlu for the drowsiness to pass. The typical metabolic rate is such that one quarter of the NoMoreFlu is lost every four hours.

(a) If a person takes the full dosage, how long should adults wait after taking NoMoreFlu to ensure that there will be

(i) Less than 4 mL of NoMoreFlu in their system?

(ii) Less than 1 mL in their system?

(iii) Less than 0.1 mL in their system?

(b) What do you think the warning label should say? Design the label and explain the thinking behind your design.

26. **Core Skill 4; Core Skill 7.**

Among the many species that have been endangered at one time or another is the desert bighorn sheep. The desert bighorn sheep are sensitive to human-induced problems in the environment and their numbers are therefore a good indicator of land health.

It is estimated that in the 1600s, there were about 1.75 million bighorn sheep in North America. By 1960, the bighorn sheep population in North America had dropped to about 17,000. There appears to have been a similar decline in west Texas, where wildlife biologists have data showing that in 1880, there were around 1,500 bighorn sheep in west Texas and by 1955, the population had dwindled to 25 in that area. Efforts to reintroduce desert bighorn sheep in west Texas began around 1957 and by 1993, there were about 400 desert bighorn sheep in west Texas roaming free or in captivity.

(a) Assume that the annual percentage decrease in the bighorn sheep population in west Texas was fairly constant from 1880 to 1955. Model the bighorn sheep population for any year in this range with an exponential function of the form $P = a \cdot b^t$, where t is the number of years since 1880, a is the population of the bighorn sheep in west Texas in 1880, b is the annual rate of retention, and P is the annual bighorn sheep population in west Texas for the given year.

(b) Assume that, starting in 1957 when reintroduction began, the annual percentage increase in the bighorn sheep population in west Texas was fairly constant. Model the bighorn sheep population for any year since 1957 with the exponential function, $P = a \cdot b^t$, where t is the number of years since 1957, b is the annual rate of growth, P is the annual bighorn sheep population in west Texas for the given year, and a is the bighorn sheep population in 1957.

(c) Describe the mathematical domain for the two functions in Questions (a) and (b). Describe reasonable domain values for the actual situations modeled by these functions. Explain any differences between the two types of domains (mathematical and situational).

(d) From 1880 to 1955, by what percentage was the population decreasing annually? From 1957 to 1993, by what percentage was the population increasing annually?

(e) By what year had the sheep population dropped to 750 or fewer? Use numerical, graphical, or algebraic methods and explain your reasoning.

(f) If the reintroduction program continues, in what year will the bighorn sheep population again be at least 750? Use numerical, graphical, or algebraic methods and explain your reasoning.

(g) In 2001, it was reported that there were 500 bighorn sheep in west Texas. Is this number consistent with the number predicted by the exponential model for reintroduction? Why or why not?

27. **Core Skill 5.**

Our school has to select a girl for the long jump at the regional championship. Three girls are in contention. We have a school jump-off. Their results, in meters, are given in the accompanying table.

Elsa	Miki	Aisha
3.25	3.55	3.67
3.95	3.88	3.78
4.28	3.61	3.92
2.95	3.97	3.62
3.66	3.75	3.85
3.81	3.59	3.73

Table 3: Data from the jump-off; distances are given in meters.

Hans says, "Aisha has the longest average. She should go to the championship."
Do you think Hans is right? Explain your reasoning.

28. **Core Skill 5.**

The figure below shows two graphs: one showing the amount of water consumed in the United States from 1950 through 1980, and another graph showing the number of people living in the U.S. during those years.

T is the total amount of water consumed and B is the population. The vertical scale on the left side of the graph belongs to the graph of T. On the right side you see the vertical scale that belongs to the graph of B.

So, in 1970, the total water consumption was about 1340 billion liters per day and the population size was about 200 million people.

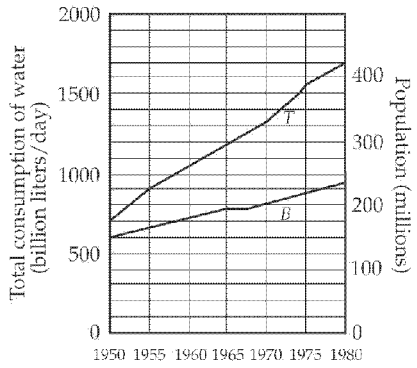


Figure 17

(a) Complete the table below with data from the graphs.

Year	1950	1955	1960	1965	1970	1975	1980
T (billion liters per day)	700				1340		
B (millions)	145				200		

(b) Use the data from the table to complete the graph below.

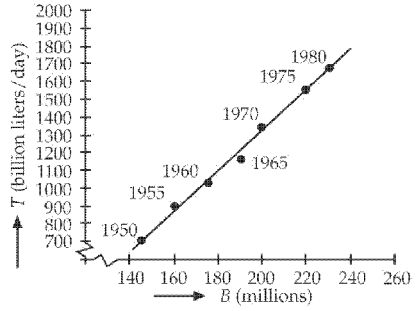


Figure 18

(c) Draw a straight line that you think best describes the pattern in your scatter plot.

(d) Find the equation of this line. Explain how you determined your equation.

(e) In 1980, researchers predicted that every five years the total consumption of water would increase by 110 to 200 billion liters per day.

(i) If that prediction is correct, what will be the minimum total consumption of water in the year 2000? Explain your answer.

(ii) What will be the maximum total consumption of water in the year 2000? Show how you got your answer.

(f) Use the experts' prediction for water-consumption increase stated in Question (e) to write equations for predicting the minimum and maximum total water consumption per day in any given year.

(g) Researchers don't expect that the increase in water consumption will continue forever. They predict that 5000 billion liters per day will be the maximum amount of water available. Between which years will people consume 5000 billion liters of water per day, according to researchers? Explain.

29. **Core Skill 5; Core Skill 6.**

The data in the accompanying table shows the annual median earnings for female and male workers in the United States from 1984 to 2004.

Year	Women's median earnings (in dollars)	Men's median (in dollars)
1984	8675	17026
1985	9328	17779
1986	10016	18782
1987	10619	19818
1988	11096	20612
1989	11736	21376
1990	12250	21522
1991	12884	21857
1992	13527	21903
1993	13896	22443
1994	14323	23656
1995	15322	25018
1996	16028	25785
1997	16716	26843
1998	17716	28755
1999	18440	30079
2000	20267	30951
2001	20851	31364
2002	21429	31647
2003	22004	32048
2004	22256	32483

(a) Create two scatter plots, one for women's median earnings over time and one for men's median earnings over time. Describe two things you notice about the scatter plots.

(b) Terry and Tomás are trying to decide what type of model will most accurately represent the data. Terry thinks that a linear model might be most appropriate for each scatter plot. Help Terry find reasonable linear function rules for each scatter plot. Explain how you found these.

(c) Using the linear models, will women's annual median earnings ever equal those of men? Why or why not?

(d) Tomás thinks that an exponential model might be most appropriate for each scatter plot. Help Tomás find reasonable exponential function rules for each scatter plot. Explain how you found these.

(e) Using the exponential models, will women's annual median earnings ever equal those of men? Why or why not?

(f) If you answered yes to either Question (c) or question (e), use that model to determine the first year women will have higher median earnings than men. Explain how you found your answer.

(g) For each year listed in the table, find the ratio of women's to men's annual median earnings expressed as a percentage. Use the data to create a scatter plot of percentage versus year. Based on this graph, do you think women's annual median earnings will ever equal those of men? Why or why not? Considering the results of the scatter plot in Question (g) above, do you think the linear model or exponential model makes more sense? Why?

30. **Core Skill 5; Core Skill 7.**

Karnataka is a state in southwest India. The accompanying table is agricultural data on fertilizer use and grain crop yield in Karnataka. Fertilizer is measured in 100,000 tons. Crop yield is measured in 10 kilograms per hectare.

Year	Fertilizer ($\times 10^5$ tons)	Yield ($\times$ 10 kg/ha)
1956	0.06	52.3
1966	0.38	45.8
1970	1.32	19.1
1974	1.95	88.9
1975	2.32	82.9
1976	2.03	93.9
1977	2.08	79.2
1978	2.9	97.9
1979	3.72	101.7
1980	3.59	102.9
1981	3.54	91.9
1982	3.87	102.2
1983	3.83	85.8
1984	4.87	102.1
1985	5.9	95.4
1986	5.55	81.19
1987	5.66	97.03
1988	5.58	83.57
1989	5.75	93.5

Throughout the years over which these data were gathered, the amount of land in cultivation remained fairly constant.

(a) Find a mathematical function that you think does a good job of modeling the relationship between fertilizer use and grain crop yield. Explain how you did it.
(b) Use the function you have chosen to predict the yield if fertilizer use is 500,000 tons.
(c) How comfortable are you with the prediction you made in Question (b)? Explain.
(d) What advice can you offer the government of Karnataka about fertilizer use? Explain.

31. **Core Skill 6.**

"My sixty-year old mother, who lives in New York, gets frightened by newspapers. One day she is afraid

of being a victim of crime, the next she is frightened of being killed in a road accident, then it's terrorists, and so on."

(a) Using reliable websites with national statistics...

(i) Estimate the chances of my mother being a victim of the above events during the next year.

(ii) Compare the likelihood of these events with the probability that women of her age will die during the coming year.

(b) Why do you suppose people fear such unrealistic dangers?

32. **Core Skill 6.**

In the general population, about 1 baby in 8,000 dies in an unexplained "crib death." The cause or causes are at present unknown. Three babies in one familiy have died. The mother is on trial, and you are on the jury. An expert witness says: "One crib death is a family tragedy; two is deeply suspicious; three is murder. The odds of even two deaths in one family are 64 million to 1."

Think about the reasoning underlying this testimony. Check the expert's math, of course, but also explain what assumptions are being made. Would the expert's testimony lead you to decide that a murder had taken place?

Sources

1. Howe, Roger
2. Adapted from Focus in High School Mathematics: Reasoning and Sense Making, copyright 2009 by the National Council of Teachers of Mathematics. All rights reserved.
3. communicated by Phil Daro; Shannon, Ann; Zimba, Jason
4. Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS); Roger Howe; Stephen Hawking (1994), *Black Holes and Baby Universes And Other Essays*, ISBN-13 9780553374117, Bantam Books, p. 1; Jason Zimba
5. communicated by Phil Daro
6. Reproduced with the permission of New Standards, University of Pittsburgh, and the National Center on Education and the Economy
7. communicated by Phil Daro
8. Adapted from Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS)
9. communicated by Phil Daro
10. COMAP
11. COMAP
12. Georgia Department of Education
13. COMAP
14. Adapted from Washington Office of the Superintendent of Public Instruction
15. COMAP
16. Adapted from Washington Office of the Superintendent of Public Instruction
17. COMAP
18. COMAP
19. Charles A. Dana Center and Achieve, Inc. (2007). Secondary Assessments and Tasks. *Mathematics Benchmarks, Grades K–12.* Austin: Authors. Online at `www.utdanacenter.org/k12mathbenchmarks`. Copyright Charles A. Dana Center/Agile Mind

20. Howe, Roger
21. Adapted from Washington Office of the Superintendent of Public Instruction
22. COMAP
23. COMAP
24. Charles A. Dana Center and Achieve, Inc. (2007). Secondary Assessments and Tasks. *Mathematics Benchmarks, Grades K–12.* Austin: Authors. Online at `www.utdanacenter.org/k12mathbenchmarks`.
25. Adapted from Washington Office of the Superintendent of Public Instruction
26. Charles A. Dana Center and Achieve, Inc. (2007). Secondary Assessments and Tasks. *Mathematics Benchmarks, Grades K–12.* Austin: Authors. Online at `www.utdanacenter.org/k12mathbenchmarks`.
27. Burkhardt, Hugh
28. COMAP
29. Charles A. Dana Center and Achieve, Inc. (2007). Secondary Assessments and Tasks. *Mathematics Benchmarks, Grades K–12.* Austin: Authors. Online at `www.utdanacenter.org/k12mathbenchmarks`.
30. COMAP
31. Adapted from Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS)
32. Adapted from Shell Centre for Mathematical Education/Mathematics Assessment Resource Service (MARS)

Statistics

Core Concepts

A Statistical methods take variability into account to support making informed decisions based on quantitative studies designed to answer specific questions.

B Visual displays and summary statistics condense the information in data sets into usable knowledge.

C Randomness is the foundation for using statistics to draw conclusions when testing a claim or estimating plausible values for a population characteristic.

D The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions.

Core Skills

1. Formulate questions that can be addressed with data. Identify the relevant data, collect and organize it to respond to the question.
2. Use appropriate displays and summary statistics for data.
3. Interpret data displays and summaries critically; draw conclusions and develop recommendations.
4. Draw statistical conclusions involving population means or proportions using sample data.
5. Evaluate reports based on data.

Example Tasks

1. **Core Concept A, Core Skill 5.**
An American Automobile Association report includes the graph shown below.

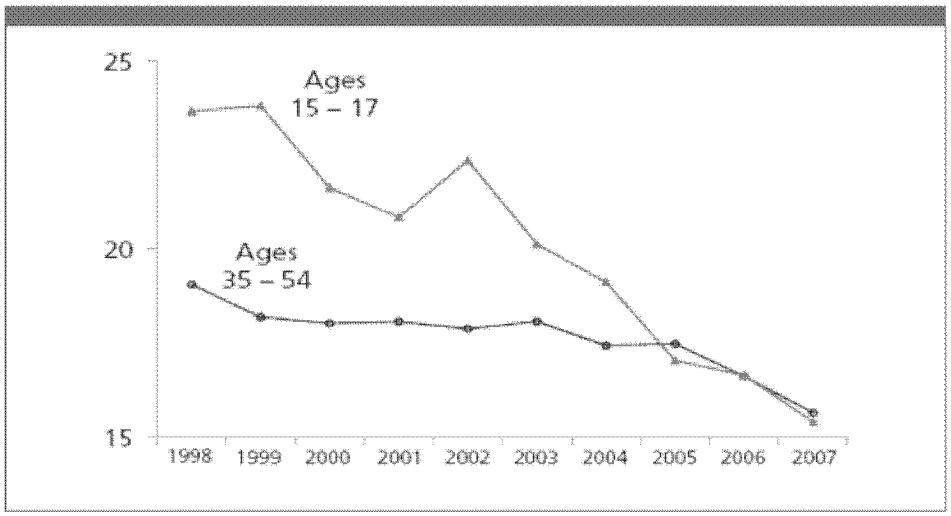


Figure 1: Number of drivers involved in fatal crashes per 100,000 population,1998–2007.

(a) Provide a written version of the information provided by this graph.
(b) The graph seems to imply that teen-aged drivers are becoming just as good as adult drivers in the 35-54 age group. Is that necessarily true? What other variables may have to be taken into account in comparing drivers for the two age groups?

(c) One of the variables that may have been listed in part 2 is the number of miles driven. How do you think rates reported in "number of drivers involved in fatal crashes per 100,000 miles driven" would differ from the rates on the graph?

2. **Core Concept B, Core Skill 2.**

Suppose the summary statistics for the number of inches of rainfall in Northampton, MA for the past 117 years, beginning in 1877, are given below.

N	Mean	Median	Min	Max	Q1	Q3
117	42.8	41.4	22.5	68.0	37.3	48.4

(a) Sketch a boxplot for these data and describe the key features of the data distribution.

(b) The news media reported that in a particular year, there were only 38 inches of rainfall. Is it appropriate for the news media to use the word only in the statement? In other words, is 38 inches an unusually small amount of rainfall for Northampton? Explain your answer.

3. **Core Concept B, Core Skill 2.**

Students in Ms. Garth's Algebra II class wanted to see if there are correlations between test scores and height and between test scores and time spent watching television. Before the students began collecting data, Ms. Garth asked them to predict what the data would reveal. Answer the following questions that Ms. Garth asked her class.

- Do you think students' heights will be correlated to their test grades? If you think a correlation will be found, will it be a positive or negative correlation? Will it be a strong or weak correlation?
- Do you think the average number of hours students watch television per week will be correlated to their test grades? If you think a correlation will be found, will it be a positive or negative correlation? Will it be a strong or weak correlation?

The students then created a table in which they recorded each student's height, average number of hours per week spent watching television (measured over a four-week period), and scores on two tests. Use the actual data collected by the students in Ms. Garth's class, as shown in the table below, to answer the following questions.

Student	Height (in inches)	TV hrs/week (average)	Test1	Test2
1	60	30	60	70
2	65	12	80	85
3	51	30	65	75
4	76	20	85	85
5	66	10	100	100
6	72	20	78	88
7	59	15	75	85
8	58	12	95	90
9	70	15	75	90
10	67	11	90	90
11	65	16	90	95
12	71	20	80	85
13	58	19	75	85

(a) Which pairs of variables seem to have a positive correlation? Explain.
(b) Which pairs of variables seem to have a negative correlation? Explain.
(c) Which pairs of variables seem to have no correlation? Explain.
(d) For each pair of variables listed below, create a scatter plot with the first variable shown on the y-axis and the second variable on the x-axis. Are the two variables correlated positively, correlated negatively, or not correlated? Determine whether each scatter plot suggests a linear trend. Do the plots confirm your decisions in parts (a)-(c) above?
- Score on test 1 versus hours watching television
- Height versus hours watching television
- Score on test 1 versus score on test 2
- Hours watching television versus score on test 2
- Height versus score on test 1

(e) Using the statistical functions of your graphing calculator, determine a line of best fit for each scatter plot that suggests a linear trend.

4. **Core Concept B, Core Skill 2, Core Skill 3**.

The table below[1] shows the reported high school graduation rates (percent of 9th grade cohorts who actually graduate), the per-pupil expenditure, PPE (in hundreds of dollars), and the percent of total taxable resources the state spends on education, PTR, for a sample of 15 states.

State	Graduation Rate	PTR	PPE
Alabama	59.0	3.4	79.24
Alaska	65.1	3.5	85.62
California	70.7	3.3	70.81
Colorado	74.6	3.0	79.39
Florida	60.5	3.0	75.39
Kansas	74.4	3.8	88.62
Kentucky	70.0	3.4	79.78
Louisiana	61.4	2.9	85.82
Michigan	69.1	4.5	91.97
Montana	76.2	3.7	89.51
Nevada	54.0	2.8	71.41
New Hampshire	76.0	3.9	93.23
New Mexico	60.1	3.7	84.31
North Dakota	79.4	3.1	91.81
Wisconsin	77.3	4.1	101.99

(a) Use technology to plot Graduation Rate versus PPE on a scatter plot that allows prediction of Graduation Rate from PPE and describe the shape of the distribution.
(b) If a linear shape is apparent, use statistical software or calculator capability to fit a least squares line to summarize the nature of that trend.

[1] Source: EPE Research Center, Education Week

(c) Interpret the slope of the least squares line found in part 2 in the context of the data.
(d) Is the relationship between Graduation Rate and PPE stronger than the one between Graduation Rate and PTR? Explain.

5. **Core Concept B, Core Skill 3.**

How did housing prices change during the turbulent economic times around 2008? One way to answer the question is to compare median prices for a variety of locations over a short time span. The data display below shows box plots of the median sales price (in thousands) of existing single-family houses for a sample of 25 metropolitan areas around the United States at mid-year 2005 and 2008.

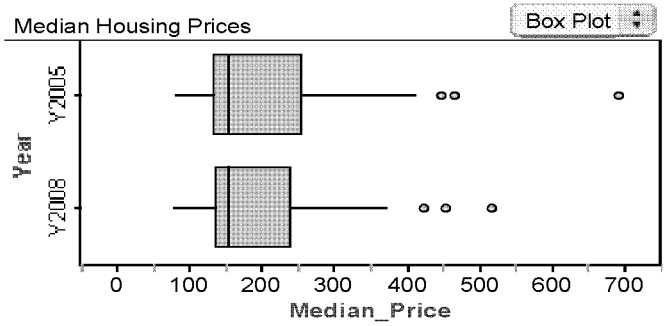


Figure 2

(a) Describe the key features of the shift in prices from 2005 to 2008.
(b) The medians of the distributions appear to differ by only a very small amount. Do you think the means would differ by a larger amount? Explain your reasoning.
(c) Why do you think the median is often used for housing prices rather than the mean?
(d) The accompanying scatter plot shows the median housing prices for 25 metropolitan areas in 2005 paired with the prices in 2008.
  (i) Describe the shape, trend and strength of the relationship between these two variables.
  (ii) Sketch the line y=x on this plot. What does the plot show with regard to the nature of the change in median prices?

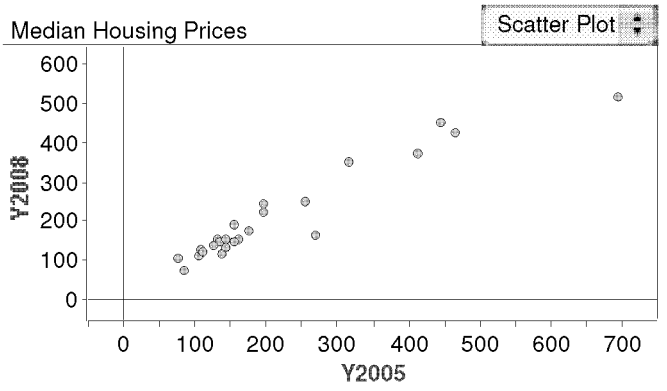


Figure 3

6. **Core Concept B, Core Skill 3**.
The histogram below shows the mean annual temperatures in Pasadena for the years 1951 to 2000.

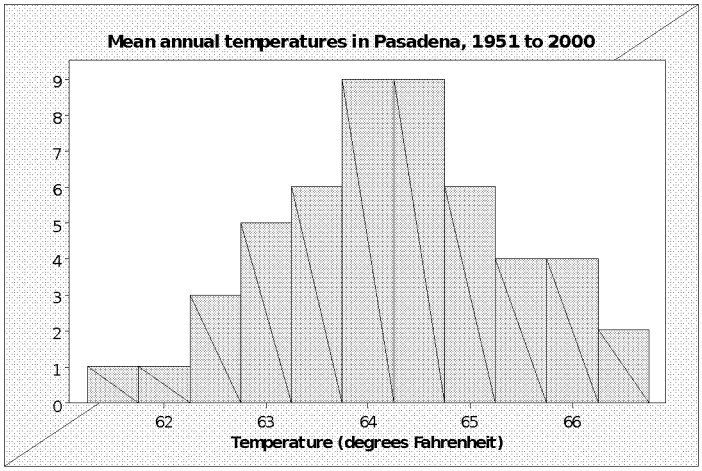


Figure 4

(a) Describe the distribution of mean annual temperatures at Pasadena.
(b) The scatter plot below shows the mean annual temperatures in Pasadena for the years 1951 to 2000. What do we learn from the scatter plot that is not obvious from the histogram.

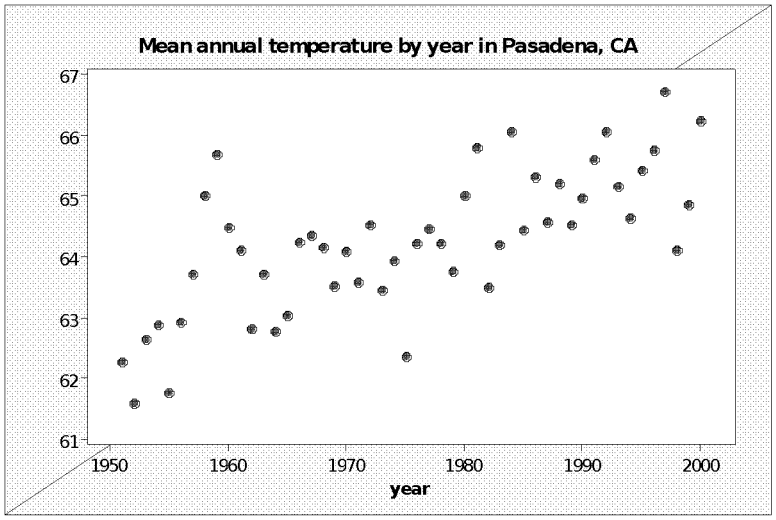


Figure 5

(c) What do we learn from the histogram that is not obvious from the scatter plot.

7. **Core Concept B, Core Skill 3.**

To determine the amount of sugar in a typical serving of breakfast cereal, a student randomly selected 60 boxes of different types of cereal from the shelves of a large grocery store. The student noticed that the side panels of some of the cereal boxes showed sugar content based on one-cup servings, while others showed sugar content based on three-quarter-cup servings. Many of the cereal boxes with side panels that showed three-quarter-cup servings were ones that appealed to young children, and the student wondered whether there might be some difference in the sugar content of the cereals that showed different-size servings on their side panels.

To investigate the question, the data were separated into two groups. One group consisted of 29 cereals that showed one-cup serving sizes; the other group consisted of 31 cereals that showed three-quarter-cup serving sizes. The boxplots shown below display sugar content (in grams) per serving of the cereals for each of the two serving sizes.

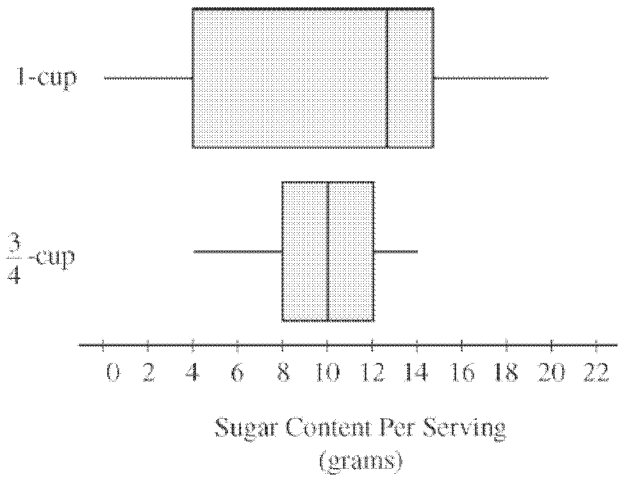


Figure 6

(a) Compare the distributions of sugar content per serving for the two serving sizes of cereals.

After analyzing the boxplots above, the student decided that instead of a comparison of sugar content per recommended serving, it might be more appropriate to compare sugar content for equal-size servings. To compare the amount of sugar in serving sizes of one cup each, the amount of sugar in each of the cereals showing three-quarter-cup servings on their side panels was multiplied by $4/3$. The bottom boxplot shown below displays sugar content (in grams) per cup for those cereals that showed a serving size of three-quarter-cup on their side panels.

(b) What new information about sugar content do the boxplots below provide?

(c) Based on the boxplots below, how would you expect the mean amounts of sugar per cup to compare for the different recommended serving sizes? Explain your reasoning.

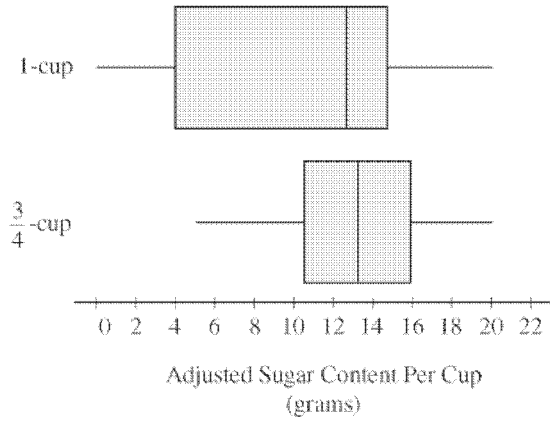


Figure 7

8. **Core Concept B, Core Skill 3**.

Two pain relievers, A and B, are being compared for relief of post-surgical pain. Twenty different strengths (doses in milligrams) of each drug were tested. Eight hundred post surgical patients were randomly divided into 40 different groups. Twenty groups were given drug A. Each group was given a different strength. Similarly, the other twenty groups were given different strengths of drug B. Drug strengths used ranged from 210 to 400 milligrams. Thirty minutes after receiving the drug, each patient was asked to describe his or her pain relief on a scale of 0 (no decrease in pain) to 100 (pain totally gone).

The strength of the drug, given in milligrams, and average pain rating for each group are shown in the scatter plot below. Drug A is indicated with A's and drug B with B's.

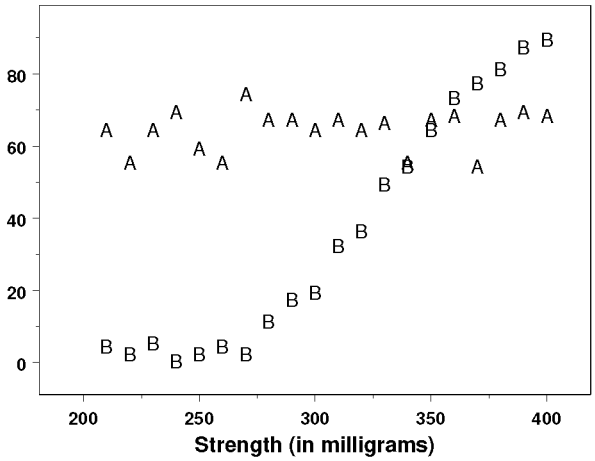


Figure 8

(a) Based on the scatter plot, carefully describe the effect of drug A and how it is related to strength in milligrams.

(b) Based on the scatter plot, carefully describe the effect of drug B and how it is related to strength in milligrams.

(c) Which drug would you give and at what strength, if the goal is to get pain relief of at least 50 at the lowest possible strength? Justify your answer based on the scatter plot.

9. **Core Concept B, Core Skill 3.**

SAT mathematics scores for a particular year are approximately normally distributed with a mean of 510 and a standard deviation of 100.

(a) What is the probability that a randomly selected score is greater than 610? Greater than 710? Between 410 and 710?

(b) If a student is known to score 750, what is the student's percentile score (the proportion of scores below 750)?

10. **Core Concept C, Core Skill 3, Core Skill 4.**

There is little doubt that caffeine stimulates bodily activity, but how much does it take to produce a significant effect? This is a question that involves measuring the effect of two or more interventions (generally called treatments) and deciding if the different interventions have differing effects. To obtain a partial answer to the question on caffeine, it was decided to compare two levels of caffeine with a control of no caffeine on a response to a finger tapping exercise.

Thirty male students were randomly assigned to one of three treatment groups of 10 students each. Each group was given one of three doses of caffeine (0, 100, and 200 milligrams) and two hours later the students were given a finger tapping exercise. The response is the number of taps per minute, as shown in the table below.[2]

Finger taps per minute from a caffeine experiment

0 mg caffeine	100 mg caffeine	200 mg caffeine
242	248	246
245	246	248
244	245	250
248	247	252
247	248	248
248	250	250
242	247	246
244	246	248
246	243	245
242	244	250
Mean:244.8	246.4	248.3

The accompanying plot shows that the data sets tend to be somewhat symmetric and have no extreme data points (outliers) that would have undue influence on the analysis. The sample mean, then, is a suitable measure of center, and will be used as the statistic for comparing treatments.

[2]Source: Draper and Smith (1981) Applied Regression Analysis, John Wiley and Sons

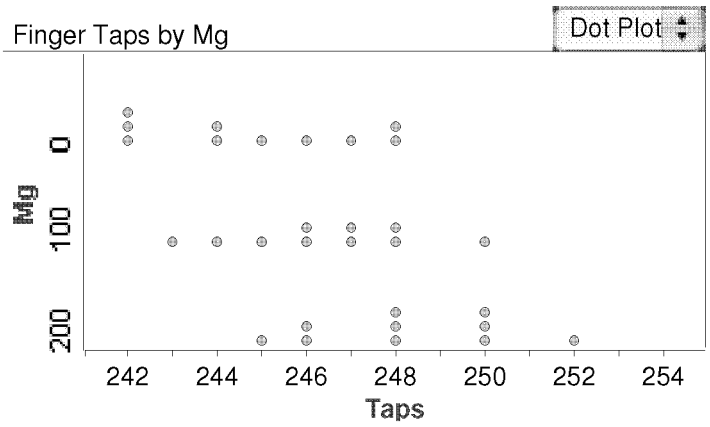


Figure 9

(a) The mean for the 100 mg data is 1.6 taps larger than that for the 0 mg data. In light of the variation in the data, is that enough to be confident that the 100 mg treatment truly results in more tapping activity than the 0 mg treatment? In other words, could this difference of 1.6 taps be explained simply by the randomization (the luck of the draw, so to speak) rather than any real difference in the treatments?

Assume for the moment that the 100 mg treatment has no effect on the tapping, and the difference in the means is simply due to the randomization. Would a difference of 1.6 units be likely to occur under these conditions? An empirical answer to this question can be found by re-randomizing the first two groups many times and studying the distribution of differences in sample means. The re-randomizing is accomplished by combining the data in the first two columns, randomly splitting them into two groups of ten each representing 0 and 100 mg, and then calculating the difference in the sample means. (This can be expedited with the use of technology.)

The plot below shows the differences produced in 200 re-randomizations of the data for 100 and 0 mg. The observed difference of 1.6 taps is equaled or exceeded 18 out of 200 times, 9% of the runs. Do these data provide strong evidence to reject the claim that the control and the 100 mg treatment do not differ with respect to their mean finger tapping counts? Explain your reasoning and the nature of the error that you may have made.

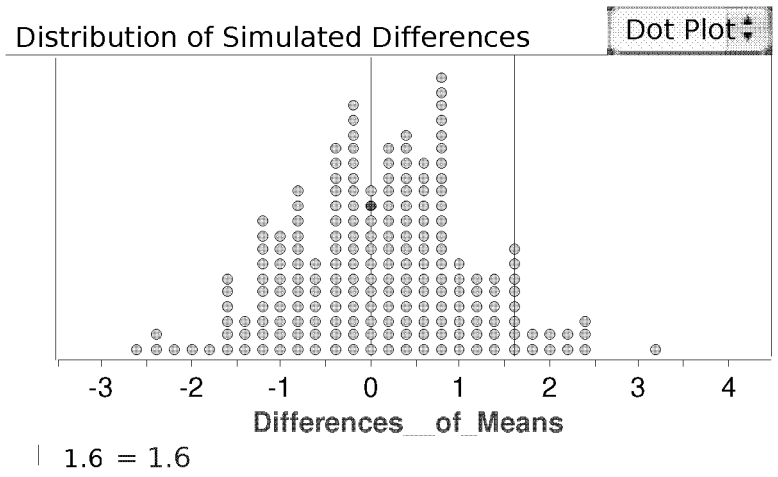


Figure 10

(b) What about the 200 mg treatment as compared to 0 mg? Construct a similar re-randomization process to decide if the difference between the mean of the 200 mg treatment and that of the 0 mg treatment is to large to be explained by chance alone. Explain your decision process and the nature of the error you may have made.

11. **Core Concept C, Core Skill 4.**

A random number generator is said to generate even or odd digits independently and each with probability 0.5. Consider the following scenarios and questions:

I. The generator generates three odd digits in a row, with probability $(.5)^3 = 0.125$ under the model given above. Does this suggest that the model is questionable?

II. The generator generates four odd digits in a row, with probability $(.5)^4 = 0.0625$ under the model given above. Does this suggest that the model is questionable?

III. The generator generates five odd digits in a row, with probability $(.5)^5 = 0.03125$ under the model given above. Does this suggest that the model is questionable?

(a) At which point in the sequence of odd digits would you begin to question the truth of the model? (If five odds in a row are not enough, continue the sequence until doubt sets in.)

(b) Write a short description explaining the interactive roles of probability and data in the decision-making process.

12. **Core Concept C, Core Skill 4.**

A random sample of 100 students from a specific high school resulted in 45% of them favoring a plan to implement block scheduling. Is it plausible that a majority of the students in the school actually favor the block schedule? Simulation can help answer the questions.

The accompanying plot shows a simulated distribution of sample proportions for samples of size 100 from a population in which 50% of the students favor the plan, and another distribution from a population in which 60% of the students favor the plan. (Each simulation contains 200 runs.) What do you conclude about the plausibility of a population proportion of 0.50 when the sample proportion is only 0.45? What about the plausibility of 0.60 for the population proportion?

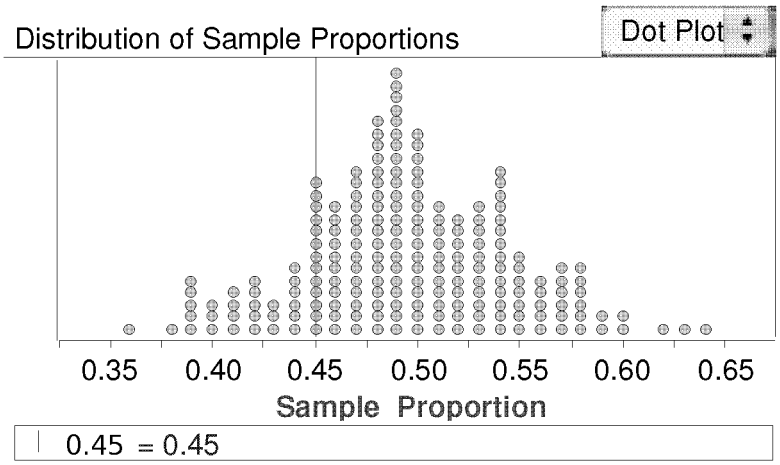


Figure 11

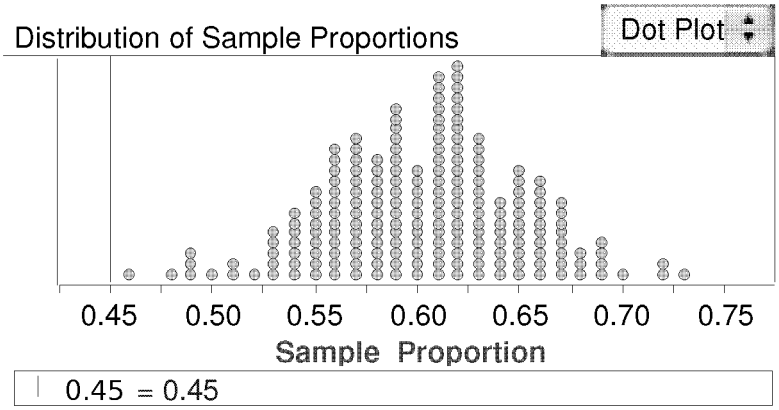


Figure 12

13. **Core Concept C, Core Skill 4**.

A tremendous amount of bottled water is being consumed these days. Do the consumers really think bottled water tastes better than city water or well water? Or, is this just a fad? To test tastes preferences in one school, $n = 50$ students were given samples of bottled water, well water from typical area homes having wells, and city water. Each student tasted all three types of water in random order. The results: 26 preferred bottled water, 16 preferred city water and 8 preferred well water.[3]

(a) Suppose the students running the experiment decided to check the claim that students had no preference for bottled water over non-bottled water. Under this claim and the randomization of the order of tasting, the preference for bottled over non-bottle water should have probability of about $p = 0.5$. The probabilities for X, the number of students choosing bottled water when $n = 50$ and $p = 0.5$, is shown below, with a vertical line at $X = 26$.

[3]Source: http://library.thinkquest.org/04apr/00222/text/survey.htm

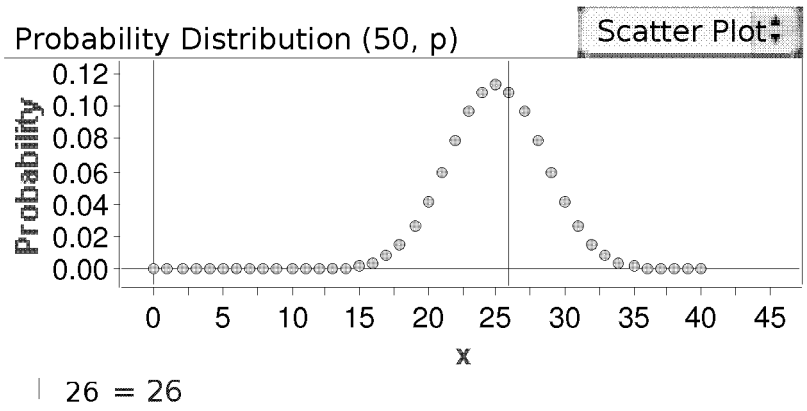


Figure 13

Does this provide strong evidence to reject the claim that there is no preference for bottled water? Explain your reasoning.

(b) Some students suggest that making this into a two-choice problem is incorrect, because there are really three choices for each taster. So, the correct claim to test is that students have no preference among bottled water, well water and city water. Under this claim the preference for bottled water should have probability of about $p = 0.33$. The probabilities for X, the number of students choosing bottled water with $n = 50$ and $p = 0.33$, is shown below, with a vertical line at $X = 26$.

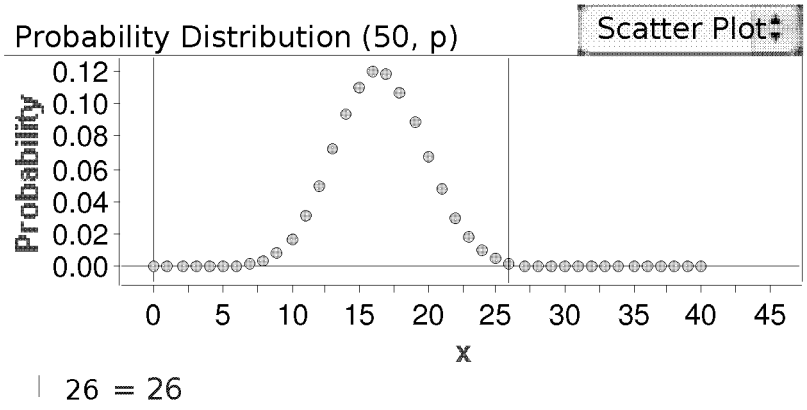


Figure 14

Does this provide strong evidence to reject the claim of no preference for bottled water among the three choices? Explain your reasoning.

(c) Which of the two claims outlined above seems more appropriate for this experiment?

(d) In the decisions made above, explain the error that could have been made.

14. **Core Concept D**.

From a class containing 12 girls and 10 boys, three students are to be selected to serve on a school disciplinary panel. Here are four different methods of making the selection.

I. Select the first three names on the class roll.
II. Select the first three students who volunteer.
III. Place the names of the 22 students in a hat, mix them thoroughly, and select three names from the mix.
IV. Select the first three students who show up for class tomorrow.

Which is the best sampling method, among these four, if you want the school panel to represent an unbiased view of the opinions of your class.

15. **Core Concept D, Core Skill 1.**
Biology students are to conduct a study of the effect of different durations of light and dark on the growth of radish seedlings. To pare the number of possible durations down to a manageable level, the students decided to focus the question on three different durations: 24 hours of light, 12 hours of light and 12 hours of darkness, and 24 hours of darkness. Plastic bags are to be used as growth chambers; there are 120 radish seeds available for the study.
(a) Is the best design for this study a sample survey, an experiment, or an observational study? Explain your reasoning.
(b) Describe how you would design a study to compare the three duration schemes, using all 120 seeds and as many plastic bags as you need.

16. **Core Concept D, Core Skill 1.**
Students in a high school mathematics class decided that their term project would be a study of the strictness of the parents or guardians of students in the school. Their goal was to estimate the proportion of students in the school who thought of their parents or guardians as "strict". They do not have time to interview all 1000 students in the school, so they plan to obtain data from a sample of students.
(a) Is the best design for this study a sample survey, an experiment, or an observational study? Explain your reasoning.
(b) The students quickly realized that, as there is no definition of "strict", they could not simply ask a student, "Are your parents or guardians strict?" Write three questions that could provide objective data related to strictness.
(c) Describe an appropriate method for obtaining a sample of 100 students, based on your answer in part (a) above.

17. **Core Skill 1, Core Skill 2.**
The data in the accompanying table shows the fate of 1316 passengers on the Titanic described in terms of two categorical variables, class of travel and survival. Use these data to answer the questions posed below.

	Class of Travel			
Survived	First	Second	Third	Total
Yes	203	118	178	499
No	122	167	528	817
Total	325	285	706	1316

(a) Do these data come from a sample survey, an experiment or an observational study? Explain your reasoning.
(b) What proportion of the passengers survived? What proportion of the passengers traveled in first class?
(c) Construct a table of (conditional) relative frequencies by column. Interpret the results in context and use them to discuss the association between class of travel and survival.
(d) Construct a table of (conditional) relative frequencies by row. Do these result in a similar interpretation with regard to association as that in part (c)?

18. **Core Skill 1, Core Skill 2, Core Skill 3.**

A simple random sample of 100 high school seniors was selected from a large school district. The gender of each student was recorded, and each student was asked the following questions.

- Have you ever had a part-time job?
- If you answered yes to the previous question, was your part-time job in the summer only?

The responses are summarized in the table below.

	Gender		
Job Experience	Male	Female	Total
Never had a part-time job	21	31	52
Had a part-time job during summer only	15	13	28
Had a part-time job but not only during summer	12	8	20
Total	48	52	100

(a) Construct a graphical display that shows the relationship between gender and job experience for the students in the sample.

(b) Write a few sentences summarizing what the display in part (a) reveals about the relationship between gender and job experience for the students in the sample.

(c) Is it appropriate to use these data to construct an estimate of the proportion of seniors in the school district who never had a part-time job? Why or why not?

19. **Core Skill 1, Core Skill 3.**

The 54 students in a middle school class were asked two questions about musical preferences: "Do you like rock?" "Do you like rap?" The responses are summarized in the table below.

(a) Is this a sample survey, an experiment, or an observational study?

(b) What percentage of the students in the class like rock?

(c) Does there appear to be a positive association between liking rock and liking rap for this class (i.e., do the students who like rock also tend to like rap)? Justify your answer by pointing out a feature of the table that supports it.

(d) Do you think the results for this class would generalize to the entire middle school? To a high school class in a nearby school? Explain your reasoning.

	Like Rap		
Like Rock	Yes	No	Row Totals
Yes	27	6	33
No	4	17	21
Column Totals	31	23	54

20. **Core Skill 1, Core Skill 5.**

What are the consequences of delayed defibrillation for those who have cardiac arrest? In a study of 6789 patients, at 369 hospitals, who had experienced cardiac arrest, 2045 had to wait longer than the recommended two minute maximum for defibrillation. Among those receiving delayed defibrillation, 22.2% survived to hospital discharge. Among those whose defibrillation was not delayed, 39.3% survived to discharge. The study concluded that, "Delayed defibrillation is common and is associated with lower rates of survival after in-hospital cardiac arrest."

(a) Is this study a sample survey, an experiment or an observational study?

(b) Note the use of the phrase "is associated with" in the study conclusion. Would it be correct to replace this phrase with "causes"? Why or why not?

21. **Core Skill 2, Core Skill 3.**

Two gasoline additives were tested to check their claims that their use will increase gasoline mileage in cars. Thirty cars were randomly selected and each was filled with gasoline. The cars were run until the gas tanks were empty. The distance traveled was recorded for each car.

Additive A was randomly assigned to 15 of the cars and the remaining 15 cars got additive B. The cars were again run under the same driving conditions until the tanks were empty and the miles driven was recorded. For each car the difference in miles driven was calculated as miles with additive minus miles without the additive. If that number was greater than zero it meant that the car went a greater distance with the additive than without it. Negative differences meant that the car went a greater distance without the additive than with it.

The following table summarizes the calculated differences.

Additive	Values Below Q1	Q1	Median	Q3	Values Above Q3
A	-10, -8, -2	1	3	4	5, 7, 9
B	-5, -3, -3	-2	1	25	35, 37, 40

(a) On the grid below, display parallel boxplots (showing outliers, if any) of the differences for the two additives. Make sure that you label the plots so that we can tell which one is A and which is B.

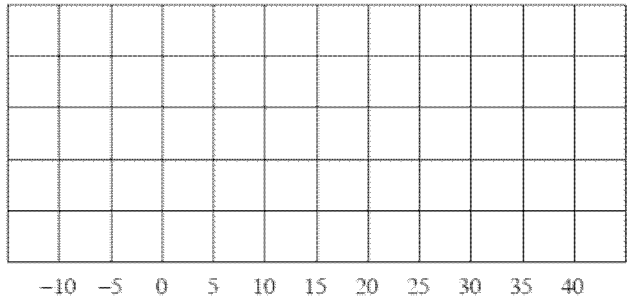


Figure 15

(b) Two ways that the effectiveness of a gasoline additive can be evaluated are by looking at

- The proportion of cars that have increased gas mileage when the additive is used in those cars
- The average mean increase in gas mileage when the additive is used in those cars.

(i) Which additive, A or B, would you recommend if the goal is to increase gas mileage in the highest proportion of cars? Explain your answer.

(ii) Which additive, A or B, would you recommend if the goal is to have the highest average (mean) increase in gas mileage? Explain your answer.

22. **Core Skill 3.**

The accompanying graph shows the relationship between scores on Exam 1 and scores on Exam 2 for all the students studying statistics from the same teacher in a recent year. The darker line (with slope 1) is the $y = x$ line. The lighter line (slope 0.6) is the least squares line of best fit.

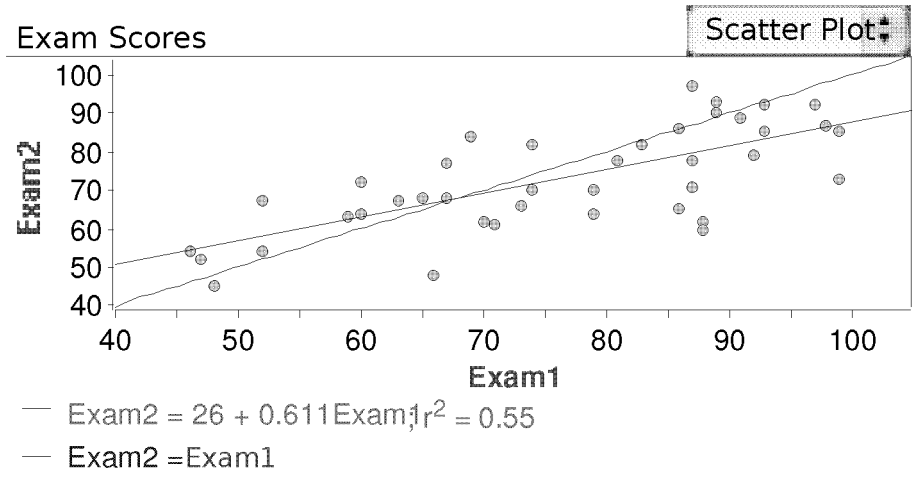


Figure 16

(a) What does the pattern tell you about the students who scored 60 or below on the first exam? What does the pattern tell you about the students who scored 80 or above on the first exam?

(b) Did more students improve their score or lower their score as they moved from exam 1 to exam 2? What feature of the plot leads to you answer of this question?

(c) Make a concise statement as to why the slope of the least squares line is less than 1.

23. **Core Skill 3.**

Gas chromatography is a technique used to detect very small amounts of a substance. To study the calibration of a gas chromatograph, five measurements were taken for each of four specimens containing different but known amounts of the substance being studied. A graph of the output readings from the gas chromatograph versus the input amounts is shown on the accompanying plot.[4]

(a) Based on just the scatter plot and the regression line, does the simple linear model appear to provide a good description of the performance of the chromatograph?

(b) On studying the residual plot, what concerns might you have about the simple linear regression line as a model for the performance of the chromatograph? (Residuals are deviations of the points from the regression line.)

[4]Source: http://lib.stat.cmu.edu/DASL/Datafiles/Chromatography.html

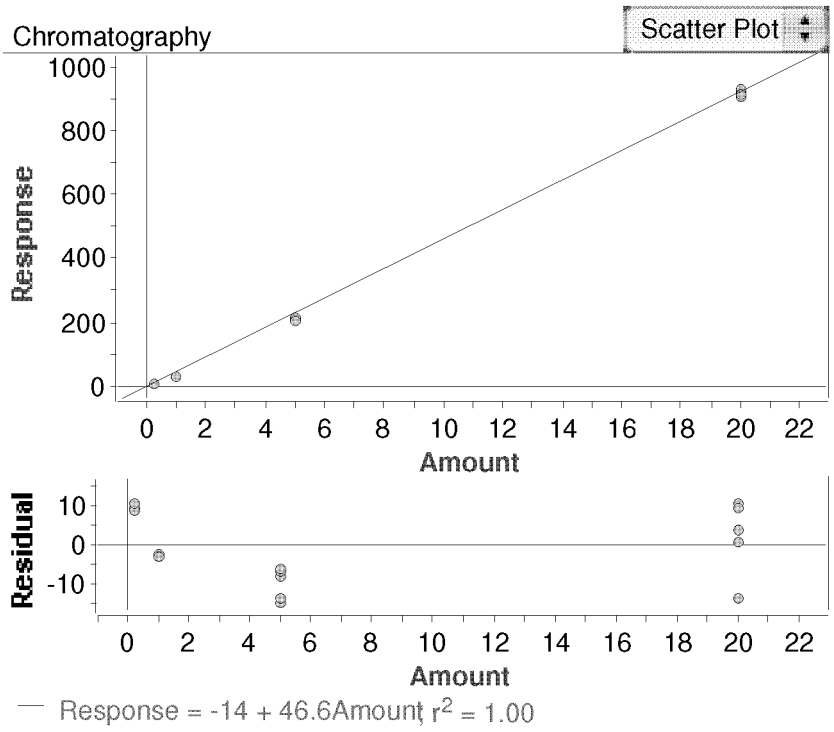


Figure 17

24. **Core Skill 3**.

Which of the following data sets are not good candidates to be modeled by a normal distribution? Explain your reasoning in each case.

(a) Salaries of employees of a large corporation.
(b) The life lengths of batteries of a specific brand used in laptop computers.
(c) Measurements of the diameters of 15-inch wheels produced by an automobile manufacturer.
(d) Prices of single-family houses in your city or county.

25. **Core Skill 3, Core Skill 4**.

Each of the simulated distributions generated above can be modeled by a normal distribution with center at the fixed population proportion, p, used to generate the distribution and standard deviation (SD) of approximately 0.05. From properties of the normal distribution it can be seen that about 95% of the possible values of a sample proportion lie within approximately 2SD of their mean (p).

(a) Letting p denote a population proportion and an observed sample proportion, argue that any population with a value of p greater than $p + 2$SD would not produce the observed within its middle 95% of possible outcomes. (In the context of Block Scheduling, and using an arbitrary but common definition of plausible, any value of p greater than $0.45+0.10 = 0.55$ would not be a plausible value for the population proportion of students favoring the block scheduling plan.)
(b) Letting p denote a population proportion and an observed sample proportion, argue that any population with a value of p less than $p - 2$SD would not produce the observed within its middle 95% of possible outcomes. (In the context of Block Scheduling, any value of p less than $0.45 - 0.10 = 0.35$ would not be a plausible value for the population proportion of students favoring the block scheduling plan.)
(c) Based on parts (a) and (b), argue that the interval

$$p \pm 2\text{SD}$$

forms an interval of plausible values for the true population proportion. That is, the interval $p \pm 2$SD contains about 95% of the possible values of the sample proportions that can be generated from a population with true proportion p. This 2SD bound is commonly referred to as the margin of error.

(d) In general, will the margin of error increase or decrease as the sample size increases? Explain your reasoning.

26. **Core Skill 5.**

Researchers have noticed that the number of golf courses and the number of divorces in the United States are strongly correlated and both have been increasing over the last several decades. Can you conclude that the increasing number of golf courses is causing the number of divorces to increase? Explain your answer.

27. **Core Skill 5.**

The following appeared in the Sunday Times of London:

> Research finds the website [Facebook] is damaging students' academic performance. . . . Facebook users . . . are more likely to perform poorly in exams, according to new research. . . . The majority of students who use Facebook every day are underachieving by as much as an entire grade compared with those who shun the site.

This story was then picked up by many other newspapers and became a popular headline across the United States and beyond.

(a) What elements of the story in the Times sound like cause-and-effect arguments?

The source of the data in this case was the report of a study at the Ohio State University entitled, "A Description of Facebook Use and Academic Performance Among Undergraduate and Graduate Students." A total of 219 participants, mostly from selected classes in the school of education whose instructors agreed to participate, constituted the sample of this pilot study. The sample included both graduate and undergraduate students, with self-reported data on both how much they studied and grade point averages. The data were reported in ranges, like 3.0 to 3.5 for grade point averages. [5]

(b) Many of the weaknesses of the study were reported by the authors. What do you think some of these weaknesses are?

(c) Was the Sunday Times correct in reporting the results in cause-and-effect style? Explain your reasoning.

28. **Core Skill 5.**

A presidential campaign advertisement for former New York City mayor Rudy Giuliani said, "I had prostate cancer, 5, 6 years ago. My chance of surviving prostate cancer-and thank God, I was cured of it-in the United States was eighty-two percent. My chance of surviving prostate cancer in England was only 44 percent under socialized medicine."

The quoted percentages were based on 5-year survival rates, not mortality rates, reported from studies in the United States and the United Kingdom, respectively. But, these 5-year survival rates have little to do with mortality rates, as can be seen from the definitions given below:

$$\text{5-year survival rate} = \frac{\text{number of patients diagnosed with cancer still alive 5 years after diagnosis}}{\text{number of patients diagnosed with cancer}}$$

$$\text{annual mortality rate} = \frac{\text{number of people who died from cancer over 1 year}}{\text{number of people in the group}}$$

(a) How could changes in medical practice increase the 5-year survival rates without changing the mortality rate for any given year?

[5] Source:http://online.wsj.com/article/SB124034974305240495.html

(b) In the US, most prostate cancer is detected by screening for prostate-specific antigens (PSA). In the UK, most prostate cancer is detected by symptoms. How might this difference in medical practice affect their respective 5-year survival rates?
(c) Was Mr. Giuliani making a fair comparison? Explain your reasoning.

29. **Core Skill 5.**

"Parents Rate Schools Much Higher Than Do Americans Overall" is the title of a report on a Gallup poll of August 24, 2009. The results of the poll show that "three in four American parents (76%) are satisfied with the education their children receive in school, compared to 45% of the general public who are satisfied with the state of schools nationwide." An explanation of how the poll was conducted includes the following.

> Results are based on telephone interviews with 1,010 national adults, aged 18 and older, conducted Aug. 6-9, 2009. For results based on the total sample of national adults, one can say with 95% confidence that the margin of error is ±4 percentage points. For results based on the sample of 233 parents with children in kindergarten through grade 12, the maximum margin of sampling error is ±8 percentage points.
>
> Interviews are conducted with respondents on land-line telephones (for respondents with a land-line telephone) and cellular phones (for respondents who are cell-phone only).
>
> In addition to sampling error, question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of public opinion polls.

(a) Explain the meaning of the 4% margin of error in the context of this poll.
(b) Why is the margin of error for the poll of parents with children in school larger than that for the overall poll?
(c) Why is it important to mention both cellular and land-line phones?
(d) Other than error due to the fact the data comes from a sample, describe other potential sources of error in a poll of this nature.

30. **Core Skill 5.**

In 1962, research statistics showed that the percentage of obesity in America's population was at 13%. By 1980 it has risen to 15%, by 1994 to 23%, and by the year 2000 the obesity progression in America had reached an unprecedented 31%. The U.S. Surgeon General report declared that obesity is responsible for 300,000 deaths every year. These overwhelming research statistics reveal an alarming obesity trend, the need for diagnosis, and a call to action.

In the midst of an informational and research feeding frenzy on the obesity epidemic, statistics are easy to come by. The most widely disseminated CDC research statistics on American obesity tell us that 63% of adult Americans have a Body Mass Index (BMI) in excess of 25.0 and are therefore overweight; more than a quarter surpass 30.0, having been declared obese. And perhaps the most riveting statistics concern obesity in kids: research shows that childhood obesity has more than tripled over the past two decades.

Still, by focusing on the polite abstraction of Body Mass Index rather than actual bodyweight, the CDC has hindered the war on the prevention of obesity in America. Indeed, CDC research epidemiologists are faithful keepers of the public health record; but for reasons of technical precision and political propriety, they have scrupulously avoided the publication of the most crucial and powerful obesity statistics, raw bodyweight averages for the American population.

The new IHRSA/ASD Obesity/Weight Control Report has published these graphic and visceral images of a dangerously overweight population. The "real" research statistics on obesity reveal that:

- 3.8 million Americans carry over 300 pounds.
- With the average adult woman weighing in at a staggering 163!

Perhaps the most shocking statistics underscoring obesity in the United States is that 400,000 Americans

(mostly men) fall into a super-massive 400+ pound category.[6]

(a) Explain the controversy between the two measures of obesity, the BMI (which takes into account height and weight) and bodyweight averages.

(b) The percentages in the first paragraph are based on BMI. Is there any other data on the article to which these figures can be compared fairly?

(c) Does the article make a strong scientific case for using bodyweight rather than BMI to measure obesity?

Sources

1. Scheaffer, Richard
2. Adapted from AP Statistics 2001 No 1
3. Charles A. Dana Center and Achieve, Inc. (2007). Secondary Assessments and Tasks. *Mathematics Benchmarks, Grades K–12.* Austin: Authors. Online at `www.utdanacenter.org/k12mathbenchmarks`.
4. Adapted from Achieve Benchmarks revision
5. Adapted from Achieve Benchmarks revision
6. Adapted from AP Statistics 1998 No 1
7. Adapted from AP Statistics 2008 No 1
8. Adapted from AP Statistics 2000 No 1
9. Adapted from Achieve Benchmarks revision
10. Adapted from Achieve Benchmarks revision
11. Adapted from Achieve Benchmarks revision
12. Adapted from Achieve Benchmarks revision
13. Adapted from Achieve Benchmarks revision
14. Adapted from Achieve Benchmarks revision
15. Adapted from Guidelines for Assessment and Instruction in Statistics Education (GAISE)
16. Adapted by Richard Scheaffer from Mathematics Teacher
17. Adapted from Achieve Benchmarks revision
18. Adapted from AP Statistics 2009 No 1
19. Adapted from Guidelines for Assessment and Instruction in Statistics Education (GAISE)
20. Chan, P. S. et. al. (2008), Delayed Time to Defibrillation after In-Hospital Cardiac Arrest, *The New England Journal of Medicine*, 358, 1, 9-17.
21. Adapted from AP Statistics 2004 No 1
22. Scheaffer, Richard
23. Adapted from Achieve Benchmarks revision
24. Adapted from Achieve Benchmarks revision
25. Adapted from Achieve Benchmarks revision
26. Adapted from Achieve Benchmarks revision
27. Sunday Times of London
28. Gigerenzer, G, et.al. (2008), Helping Doctors and Patients Make Sense of Health Statistics, *Psychological Science in the Public Interest*, 8, 2, 53-96.

[6]Source:http://www.americansportsdata.com/obesityresearch.asp

29. Scheaffer, Richard
30. Statistics_ADP

Appendix B1-4

International Benchmarking of Common Core Standards

The following is information on international benchmarking of the Common Core Standards provided by the Council of Chief State School Officers.

International Benchmarking and the Common Core

The Common Core State Standards (CCSS) are designed to be **college- and career-ready** and **internationally benchmarked**. To that end, the development process included the review and consideration of many sources, including research studies, existing standards from the U.S and abroad, and the professional judgment of teachers, content area experts, and college faculty. This paper will briefly describe how international benchmarking was used to develop the CCSS.

What documents were used to ensure that the CCSS were internationally benchmarked?
To ensure that the standards prepare students to be globally competitive, the development team used a number of sources, including: the frameworks for PISA and TIMSS; the International Baccalaureate syllabi; the American Institutes for Research report, **Informing Grades 1-6 Mathematics Standards Development: What Can Be Learned From High-Performing Hong Kong, Korea, and Singapore** and; the A+ Composite found in **A Coherent Curriculum: The Case for Mathematics *by Bill Schmidt, Richard Houang, and Leland Cogan.***

In addition, the development team looked to the standards of a number of individual countries and provinces to inform the content, structure and language of the CCSS. In *mathematics*, twelve set of standards were selected to help guide the writing of the standards: Belgium, Canada [Alberta], China, Chinese Taipei, England, Finland, Hong Kong, India, Ireland, Japan, Korea, and Singapore.[1] In *English language arts*, the writing team looked closely at ten sets of standards from Australia (New South Wales and Victoria), Canada (Alberta, British Columbia, and Ontario), England, Finland, Hong Kong, Ireland, and Singapore.[2]

How were the international benchmarks used to inform the development of the CCSS?
The goal of the international benchmarking in the common core state standards development process was to ensure that the CCSS are as rigorous as comparable standards in the high-performing and other countries. However, the use of international benchmarks as evidence is no easy feat; it is not simply a matter of identifying the "best" source and copying it, or of aggregating all viable sources to find some set of shared expectations. Rather, international benchmarks were used to guide critical decisions in the following areas:

- *Whether particular content should be included:* One of the principal ways international standards were used in this development process was as a guide when making tough decisions about whether content should be included or excluded.
- *When content should be introduced and how that content should progress*: The progression of topics in the international mathematics standards helped the development

team make decisions about when to introduce topics in the CCSS as well as when to stop focusing on them.

- *Ensuring focus and coherence*: Standards from other countries tend to be very focused, including only what is absolutely necessary.
- *Organizing and formatting the standards*: Certain organizational aspects or characteristics of international standards that promoted clarity and ease of reading and use served as a model for the CCSS.
- *Determining emphasis on particular topics in standards*: Where emphasis on particular topics was found repeatedly in international standard, this was instructive in determining their importance for inclusion in the CCSS.

* * * * *

When the final version of the K-12 Common Core State Standards is released, it will be accompanied by a discussion of the evidence that was used in their development. In the meantime, the evidence from the September 2009 draft of the College and Career Ready Standards is available: The URL for the ELA document is http://www.corestandards.org/Files/ELAEvidence.pdf, and the URL for the mathematics document is http://www.corestandards.org/Files/MathEvidence.pdf.

Appendix B2-1

Florida Consortium MOA

ASSESSMENT CONSORTIUM
MEMORANDUM OF AGREEMENT

This Memorandum of Agreement ("MOA") is entered into by and between the following States: Arkansas, Colorado, Florida, Illinois, Indiana, Louisiana, Massachusetts, Minnesota, North Carolina, Ohio, Pennsylvania, and Virginia (collectively the "Participating States" or "Assessment Consortium").

1. Purpose. The purpose of this MOA is to form a coalition of states with a shared vision for common assessments that are internationally-benchmarked; build toward college and career readiness by the time of high school graduation; measure a common core of standards for K-12 pursuant to the National Governors Association Center for Best Practices Memorandum of Understanding ("Common Core Standards"); utilize technology for efficiency of delivery and scoring; and are cost effective. An outcome of this shared vision will be a proposal for the federal Race to the Top Assessment Competition in 2010 to develop and implement common, high-quality assessments aligned with the Common Core Standards.

2. Lead State. The Participating States agree that Florida shall be designated as the Lead State, and Florida accepts the designation. The Lead State shall manage the work process under this MOA and competitively bid, when determined by the Assessment Consortium, for all services and commodities required to achieve the objectives of this MOA.. In particular, the Lead State shall:

a. Direct and oversee meetings of the Assessment Consortium and set the agendas.

b. Pursuant to the laws of the Lead State, procure any necessary goods and services needed to carry out the intent of this MOA, using the most reasonable form of competitive solicitation and by quotes if no competitive solicitation is required.

c. Although the Lead State shall manage and administer the primary contracts, each Participating State shall be a party to any multi-state agreement, by direct execution or by addendum,. However, each Participating State shall be responsible for enforcing their portion of the work on any multi-state contract. In addition, the Lead State shall not be responsible for any of the contractual obligations of a Participating State.

d. Coordinate, assist, and task the Management Entity as may be reasonably necessary.

e. Serve as liaison with the U.S. Department of Education, and all other third parties on behalf of the Assessment Consortium.

f. The Lead State may resign by notifying the Participating States at least 30 days in advance by written notice. A majority of the Participating States will then appoint a new Lead State.

g. The Participating States may remove the Lead State and appoint a new Lead State by vote of a majority of the Participating States. Upon the resignation or removal of the Lead State, all contracts and other rights and obligations of the Lead State shall be assigned to the new Lead State.

3. Management Entity. Services of a Management Entity will be procured and utilized to assist the Consortium in conducting its work. A majority vote of the Assessment Consortium is required to award a contract to the Management Entity.

The Management Entity shall perform the following services:

a. Assist the Lead State in coordinating and running the Assessment Consortium meetings, including acting as a facilitator at the meetings.

b. Perform research and draft reports necessary for developing Requests for Proposals for goods and services.

c. Assist the Lead State in procuring goods and services as agreed upon by Participating States.

d. Provide advice and grant-writing services to the Assessment Consortium to assist them in developing the proposal for the Race to the Top Assessment Competition.

e. Perform any other activities and services that are reasonably requested by the Lead State or any Participating State in order to achieve the purposes of this MOA.

4. Scope of Work and Responsibilities of the Participating States. Each Participating State in the Assessment Consortium shall adopt the Common Core Standards which were developed to be internationally benchmarked and to build toward college and career readiness by the time of high school graduation. The Assessment Consortium shall, if funded by Race to the Top Assessment Competition funds, develop common, high-quality assessments which are aligned with the Common Core Standards. utilize technology for efficiency of delivery and scoring, result in a common definition of proficiency, and are cost effective. In order to achieve these deliverables, the Assessment Consortium and the individual Participating States shall perform the following activities.

a. Each Participating State will adopt the Common Core Standards using their state-approved standards-adoption process.

b. The Assessment Consortium will meet to define the process for procuring the services of a Management Entity by April 30, 2010

c. The Assessment Consortium will develop and submit a proposal for funding through the Race to the Top Assessment Competition by June 2010 or the due date established by the U.S. Department of Education.

d. The Assessment Consortium will meet, with the assistance of a Management Entity, to review the status of each Participating State's Common Core Standards adoption by August 2, 2010.

e. The Assessment Consortium will develop a plan by December 10, 2010, for sharing of test items and tasks aligned with the Common Core Standards for use in Participating States' LEAs for formative and interim assessment purposes.

5. Meetings and Quorum. Meetings may be called by the Lead State or a majority of the Participating States. Meetings may either be in person or by conference call. Written notice of the meeting shall be sent to all Participating States at least 48 hours in advance, by email, facsimile, or certified mail.

a. A Quorum for any meeting shall consist of designated representatives from at least two-thirds of the Participating States. An individual state may appear by phone and be counted as part of the Quorum. Each Participating State shall have one vote.

b. All actions or decisions of the Assessment Consortium shall, unless otherwise designated elsewhere in this MOA, require a majority vote to pass.

c. Actions and decisions of the Assessment Consortium may also be taken by written directive executed by a majority of the Participating States without a formal meeting.

d. Notwithstanding the above, any amendment to this MOA shall require a unanimous vote of the Participating States.

6. Exam Results. Each Participating State shall own their respective assessment results and any other documentation which are developed as a result of any particular state assessment. All Participating States shall jointly own all deliverables produced as a result of this MOA, and shall have the right to utilize all deliverables and documents produced under this MOA for the benefit of their respective state, subject to all state and federal confidentiality laws and regulations.

7. Termination and Withdrawal of Parties.

a. This MOA may be terminated by agreement of all the Participating States.

b. Any Participating State may withdraw from this MOA upon thirty days written notice to all Participating States. In addition, any Participating State may immediately withdraw from this MOA upon notice of a loss of state funding to support the assessment work. A notice specifying the reasons for immediate termination shall be sent as soon as possible after the termination to the Participating States.

c. A withdrawn Participating State may only participate in a contract or agreement it executed prior to its withdrawal from the Assessment Consortium and this MOA.

d. A Participating State may have their rights hereunder terminated in the event it fails to perform or comply with any of its material covenants or obligations contained in this MOA, and such failure is not remedied and cured in all material respects within fifteen (15) days after the date written notice of such failure is delivered to the Participating State by the Lead State. A termination for default under this provision shall effectively terminate all contracts and agreements entered into by the terminated Participating State which have been procured through this MOA. Upon demand by the Lead State, the terminated Participating State shall provide written proof that such agreements have been terminated. However, the determination of default must be made by a majority of the Participating States before the Lead State is authorized to take any action against a defaulting Participating State.

8. Confidential Information. The Participating States warrant they shall not disclose to any third party any personally identifiable information about any student, without the written consent of the Participating State that owns the data. This applies to information which came from any record or report used by the Assessment Consortium or from any education record which is subject to the Family Educational Rights and Privacy Act, 20 U.S.C. Section 1232g. The term "educational record" shall have the meaning prescribed in 20 U.S.C. Section 1232g(a)(4).

9. Expenses. It is the intent of the Participating States to seek funding from various third parties for the development of the common, high quality assessments and other shared deliverables under this MOA, and for the cost of a Management Entity. However, prior to obtaining such funds, the Participating States agree that they shall equally share these expenses. Decisions on whether to incur a shared expense and the amount to incur shall be decided by a majority vote of the Assessment Consortium. Notwithstanding the above, the Participating States also agree that they shall individually pay for any state specific expenses, including travel and the costs related to any state's use of an assessment.

10. Miscellaneous Provisions.

a. Rules of Interpretation. The Participating States waive application of the principle of contract construction that ambiguities are to be construed against a contract's drafter, and agree that this MOA is a joint product of all Participating States.

b. Assignment. No Participating State may assign any of its rights or obligations hereunder without the prior written consent of the Assessment Consortium.

c. Additional Documentation. Each Participating State agrees to take such action and to execute and deliver all documents necessary to carry out the terms and conditions of this MOA.

d. Invalidity and Severability. In the event that any provision of this Contract shall be held to be invalid, such provision shall be null and void. The validity of the remaining provisions of the MOA shall not in any way be affected thereby.

e. Counterparts. This Contract maybe executed in multiple counterparts, each of which shall be deemed to be an original and all of which shall constitute one contract, notwithstanding that all parties are not signatories to the original or the same counterpart, or that signature pages from different counterparts are combined, and the signature of any party to any counterpart shall be deemed to be a signature too and may be appended to any other counterpart.

f. Authority to Execute. Each Participating State warrants that it has the authority to enter into this MOA, and the party executing hereunder has the full authority to bind that state.

IN WITNESS WHEREOF, the Participating States have, through their duly authorized representative, executed this Memorandum of Agreement, which shall be effective, as of the last signature date below.

STATE OF ARKANSAS

By:_____

Name:_____
Title:_____
Date:_____

STATE OF COLORADO

By:_____

Name:_____
Title:_____
Date:_____

STATE OF FLORIDA

By:_____

Name:_____
Title:_____
Date:_____

STATE OF ILLINOIS

By: Christopher Koch

Name: Christopher A. Koch, Ed.D.
Title: State Superintendent of Education
Date: January 11, 2010

STATE OF INDIANA

By:_____

Name:_____
Title:_____
Date:_____

STATE OF LOUISIANA

By:_____

Name:_____
Title:_____
Date:_____

COMMONWEALTH OF MASSACHUSETTS

By:_____

Name:_____
Title:_____
Date:_____

STATE OF MINNESOTA

By:_____

Name:_____
Title:_____
Date:_____

STATE OF NORTH CAROLINA

By:_____

Name:_____
Title:_____
Date:_____

STATE OF OHIO

By:_____

Name:_____
Title:_____
Date:_____

COMMONWEALTH OF PENNSYLVANIA

By:_____

Name:_____
Title:_____
Date:_____

COMMONWEALTH OF VIRGINIA

By:_____

Name:_____
Title:_____
Date:_____

Appendix B2-2

Florida Consortium Participants

Arizona
District of Columbia
Florida
Georgia
Illinois
Indiana
Kentucky
Louisiana
Maryland
Massachusetts
Mississippi
New Jersey
New York
North Carolina
Pennsylvania
South Carolina
Tennessee

Total: 17 states

Appendix B2-3

MOSAIC MOU

MOSAIC

Multiple Options for Student Assessment and Instruction Consortium

Memorandum of Understanding

This Non-Binding Memorandum of Understanding ("MOU") is entered into by and between the lead state(s): Wisconsin, Nebraska, and Missouri, and Illinois ("Your State"). The purpose of this agreement is to establish a framework of collaboration, as well as articulate tasks in support of a Multi-State Consortium in its implementation of an approved Standards and Assessment Section of a Race to the Top grant. States might choose to participate in this Consortium even if their Race to the Top grant application is not funded.

I. PROJECT PROPOSAL

A. PARTICIPATING SEA RESPONSIBILITIES

A Consortium of states proposes to build a balanced assessment system of formative and benchmark assessment in a Race to the Top grant application. A state might choose to participate in this agreement through funding of its own choosing. The name of the system to be built is Multiple Options (for) Student Assessment (and) Instruction Consortium (MOSAIC). The MOSAIC system will be designed to complement a summative assessment system aligned to the Common Core such as the one being proposed under the SMARTER Consortium or any other Consortia that may develop a summative assessment aligned to the Common Core.

The proposed Consortium tasks and activities described in the Race to the Top application include the tasks that follow below. States participating in the Consortium will need to determine which of the tasks they wish to undertake with this Consortium. This decision may be made after the submission of the MOU.

Task 1.1.1 COMMON CORE: **The consortium states will adopt the Common Core Standards.** Within one year of state adoption, all districts within the consortium states will have adopted the Common Core Standards, will have integrated the standards to their local curriculum, and will have aligned professional development to familiarize staff with the college and career-ready expectations.

Task 1.1.2 PROFESSIONAL DEVELOPMENT—CURRICULAR INTEGRATION: **The consortium states will develop and build professional development materials around the instructional integration of Common Core standards.** This will include curricular frameworks aligned to the Common Core, defining of learning progressions within content areas, materials on instructional strategies, and suggested interventions. All materials will be disseminated across the states within the consortium and made available in a web-banked system.

Task 1.1.3 INSTRUCTIONAL SUPPORT SYSTEM: **The consortium states will have access to a computerized system that will provide opportunities for districts to** load the system with formative/local assessment tasks, items, and instructional materials including performance assessments. These can be shared across states, and customized for local use. All will be aligned with the Common Core and will be available electronically to students and teachers with timely data turn-around.

Task 1.1.4 STATE FLEXIBILITY: **Each state will define the level at which districts/schools in their state participate in the formative/benchmark assessment system. This may vary from state to state, depending on how each state defines voluntary versus optional participation.** (One level of required participation within a state might be to require the state's persistently low performing schools and districts to participate in this comprehensive assessment system, and to require that student performance data be tracked over time for growth and improvement.)

Task 1.1.5 REPORT DEVELOPMENT: **Each state will contribute to the development of district, school, and student-level performance reports on the Common Core.** Reports will be generated in parent-friendly and teacher-friendly formats to track progress on the Common Core standards. Emphasis will be placed upon growth and improvement over time, with customized feedback about suggested next-steps based on the student's performance.

Task 1.1.6 BENCHMARK ASSESSMENT SYSTEM: **Each state will contribute to the development of a benchmark assessment item bank with the capabilities for adaptive testing.** From this item bank, common diagnostic/benchmark tests will be developed across the "total package" consortia states through a consortia bid process to a single vendor. Each state will contribute field-tested items to the bank. This bank will be used to diagnose student strengths and deficiencies and serve as an "early warning" system. Common performance standards and cut scores for these diagnostic/benchmark tests will be set across the consortium of states. The common tests will be loaded into the computerized system for immediate data turn around. The common tests will be available to districts/schools within each state as defined by that state – varying levels of participation will require different cost to each state to implement, most likely on a per-pupil basis. (States participating at the Partner or Associate level may access items in the bank, but may not utilize the consortia-developed common assessments).

Task 1.1.7 PROFESSIONAL DEVELOPMENT--USING DATA TO IMPROVE INSTRUCTION: **Each state will contribute to the development of hands-on training and workshop modules for educators that focus on user-friendly strategies to make data-informed instructional decisions based upon formative, benchmark, and summative assessment results.** All materials will be disseminated across the collaborating states.

The selection of tasks by each SEA participating in the Consortium will determine the level of participation of each respective state. There are three levels of participation that may be selected by each SEA in the Consortium. While the level of participation does not need to be selected at the time of signing the MOU, by its signature the state is indicating its interest in participating at a minimum of Level Three.

- **Level One: "Total Package"** – The state participates in **all seven tasks** with a common vendor, and shares in all resources available through the project, including all formative/benchmark assessments developed under the project. The state has an active role in developing, disseminating and sharing professional development tasks and materials.

- **Level Two: "Partner"** – The state contributes to the item bank (**Tasks 1.1.1, 1.1.2, and 1.1.6**) and professional development materials, and may use components in their state for state-specific work. (ex: state does not use common assessments developed from the bank; instead, uses the bank to create their own assessment tools with a separate vendor)

- **Level Three: "Associate"** – The state contributes to the item bank, (**Task 1.1.6 only**) and may use components in their state for state-specific work. The state does not contribute to or have access to professional development components developed through the project.

B. RESPONSIBILITIES OF ALL SEA PARTICIPATING IN THE CONSORTIUM

1) Each participating SEA in the Consortium will appoint a key contact person for the Race to the Top grant.

2) These key contacts from each State and the lead state(s) will maintain frequent communication to facilitate cooperation under this MOU.

3) Participating SEA grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the whole grant period.

This Non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

SEA Superintendent/- Participating State Chief/Commissioner (or equivalent authorized signatory)

Signature | January 8, 2010 (Date)

Christopher A. Koch, Ed.D. (Print Name) | State Superintendent of Education (Title)

Authorized Lead SEA Official - Lead State
By its signature below, the lead state(s) hereby accepts the SEA as a Participating SEA in the Consortium

Official State Designee | Date

Print Name | Title

Please email this signed page by January 5, 2010 to

lynette.russell@dpi.wi.gov and pat.roschewski@nebraska.gov
or fax to
(Fax) 608.266.8770 and (Fax) 402.471.4311

****PLEASE email this signed page only by January 5, 2010****

Appendix B2-4

MOSAIC Consortium Participants

Delaware
Hawaii
Idaho
Illinois
Iowa
Kansas
Kentucky
Maryland
Michigan
Minnesota
Mississippi
Missouri
Montana
Nebraska
New Jersey
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
South Carolina
South Dakota
Tennessee
Utah
Washington
Wisconsin
Wyoming

Total: 27 States

Appendix B2-5

Balanced Consortium MOU

MOU for a State Consortium Developing Balanced Assessments of the Common Core Standards

This Non-Binding Memorandum of Understanding ("MOU") is entered into by and between the Balanced Assessment Consortium and Illinois ("Your State"). The purpose of this agreement is to establish a framework of collaboration for states in supporting assessment of the common core standards. The agreement also articulates tasks in support of a Multi-State Consortium in its implementation of an approved Standards and Assessment Section of a Race to the Top grant. The MOU outlines a set of working principles, the roles of states and local districts within the consortium, and a set of tasks that the Consortium would undertake.

Working Principles

A consortium of states developing a balanced assessment system for evaluating the common core standards would start with working principles derived from an examination of successful state systems in the U.S. and high-achieving systems internationally. For example:

1) **Assessments are grounded in a thoughtful, standards-based curriculum and are managed as part of a tightly integrated system of standards, curriculum, assessment, instruction, and teacher development**.

- Curriculum guidance is lean, clear, and focused on what students should know and be able to *do* as a result of their learning experiences. Assessment expectations are described in the curriculum frameworks or course syllabi and are exemplified by samples of student work.
- Curriculum and assessments are organized around a well-defined set of learning progressions within subject areas. These guide teaching decisions, classroom-based assessment, and external assessment.
- Teachers and other curriculum experts are involved in developing curriculum and assessments which guide professional learning and teaching. Thus, everything that comes to schools is well-aligned and pulling in the same direction.

2) **Assessments elicit evidence of actual student performance on challenging tasks that prepare students for the demands of college and career in the 21st century.** Curriculum and assessments seek to teach and evaluate a broad array of skills and competencies that generalize to higher education and work settings. They emphasize deep knowledge of core concepts within and across the disciplines, including problem solving, analysis, synthesis, and critical thinking, and include essays and open-ended tasks and problems, as well as selected response items.

3) **Teachers are involved in the development of curriculum and the development and scoring of assessments.** Scoring processes are moderated to ensure consistency and to enable teachers to deeply understand the standards and to develop stronger curriculum and instruction leading to greater student proficiency. The moderated scoring process is a strong professional learning experience that helps drive the instructional improvements that enable student learning, as teachers become more skilled at their own assessment practices and their development of curriculum to teach the standards. The assessment systems are designed to increase the capacity of teachers to prepare students for the contemporary demands of college and career.

1

4) **Assessments are structured to continuously improve teaching and learning**. Assessment *as*, *of*, and *for* learning is enabled by several features of assessment systems:

- The use of school-based, curriculum-embedded assessments provides teachers with models of good curriculum and assessment practice, enhances curriculum equity within and across schools, and allows teachers to see and evaluate student learning in ways that can feed back into instructional and curriculum decisions.

- Close examination of student work and moderated teacher scoring of both school-based components and externally developed open-ended examinations are sources of ongoing professional development that improve teaching.

- Developing both school-based and external assessments around learning progressions allows teachers to see where students are on multiple dimensions of learning and to strategically support their progress.

5) Assessment and accountability systems are designed to improve the quality of learning and schooling. Assessments aim to encourage and support the learning of ambitious intellectual skills in the way they are designed and used for informing teaching, learning, and schooling. Accountability systems publicly report outcomes and take these into account, along with other indicators of school performance, in a well-designed system focused on continual improvement for schools.

6) Assessment and accountability systems use multiple measures to evaluate students and schools.

Multiple measures of learning and performance are used to evaluate skills and knowledge. Students engage in a variety of tasks and tests that are both curriculum-embedded and on-demand, providing many ways to demonstrate and evaluate their learning. These are combined in reporting systems at the school and beyond the school level. School reporting and accountability are also based on multiple measures. Assessment data are combined with other information about schools' resources, capacities, practices, and outcomes to design intensive professional development supports and interventions that improve school performance.

7) New technologies enable greater assessment quality and information systems that support accountability.

New technologies enhance and transform the way the assessment process is developed, delivered, and used, providing adaptive tools and access to information resources for students to demonstrate their learning, and providing appropriate feedback by supporting both teacher scoring and computer-based scoring (now possible for both selected response and some forms of constructed-response items). By using technology to reduce costs for delivery of more open-ended assessment formats, scoring, and reporting, resources can be redirected to improvements in assessment quality.

Technology also organizes data about student learning, enhancing system accountability for instruction and reporting by providing more efficient, accurate, and timely information to teachers, parents, administrators, and policymakers. Technology helps to integrate information at as part of longitudinal data systems, contributing to a rich profile of accomplishment for every student.

State and Local Roles within a Consortium

States working within the Consortium would:

- Adopt and augment the Common Core standards as appropriate to their context.

- Create and deploy curriculum frameworks that address the standards—drawing on exemplars and tested curriculum models.
- Build and manage an assessment system that includes both on-demand and curriculum-embedded assessments that evaluate the full range of standards and allow evaluation of student progress. The Consortium may develop both joint assessments (commonly implemented by states) as well as other assessment tasks and items linked to the standards (and grounded in curriculum units) that can be incorporated into states' individual assessment plans for formative or summative purposes.
- Develop rubrics that embody the standards, and clear examples of good work, benchmarked to performance standards.
- Create oversight / moderation / audit systems for ensuring the comparability of locally managed and scored assessment components.
- Ensure that teacher and leader education and development infuse knowledge of learning, curriculum, and assessment.
- Implement high-quality professional learning focused on examination of student work, curriculum and assessment development, and moderated scoring.

Districts and schools would:

- Examine the standards and evaluate current curriculum, assessment, and instructional practice in light of the standards.
- Evaluate state curriculum guidance, and further develop and adapt curriculum to support local student learning, select and augment curriculum materials, and continually evaluate and revise curriculum in light of student learning outcomes.
- Incorporate formative assessments into the curriculum, organized around the standards, curriculum, and learning sequences to inform teaching and student learning.
- Participate in administering and scoring relevant portions of the on-demand and curriculum-embedded components of the assessment system, and examining student work and outcomes.
- Help design and engage in professional development around learning, teaching, curriculum, & assessment.
- Engage in review and moderation processes to examine assessments and student work, within and beyond the school.

Tasks the Consortium Would Undertake

The consortium of states would build on successful efforts already launched in a number of states, seeking to integrate the best knowledge and exemplars from existing efforts, so as to use resources efficiently, take advantage of well-tested approaches, and avoid reinventing the wheel. It would bring together leading curriculum and assessment experts to advise and support efforts to create a system for evaluating the Common Core, building on the most credible and well-vetted knowledge available in the field. With these supports, the Consortium could:

1. Support the Development of Curriculum Frameworks: When the Common Core standards have been released, vetted, and adopted, consortia of states would work with curriculum and assessment experts to develop (or adapt from previously successful work) curriculum frameworks, syllabi, and other materials mapped to the standards. There has been enormous investment in the United States in high-quality curriculum, for example through NSF and other

organizations at the national level, and in many states and districts. Other English-speaking nations have also developed high quality curriculum materials linked to standards and learning progressions that could be evaluated in this process. This effort would inventory and cull from efforts with a strong evidence base of success to support states in building out curriculum frameworks around which they can organize deeper curriculum development at the local level, state and local assessment development, instructional supports, and professional development.

2. Create a Digital Curriculum and Assessment Library: The results of this effort should ultimately be made available on-line in a digital platform that offers materials for curriculum building and, eventually, model syllabi for specific courses linked to the standards, formative and summative assessment tasks and instruments linked to the curriculum materials, and materials for training teachers and school leaders in both strategies for teaching specific curriculum concepts / units and assessment development and scoring. In addition, as described below, an electronic scoring platform supporting training, calibrating, benchmarking, and reporting would be developed and made available across the states.

3. Develop State and Local Assessments: The state consortium would work to create a **common reference examination, which includes selected-response, constructed response and performance components** aimed at higher-order skills, linked to the Common Core standards for grades 3-8, like the NECAP assessment recently developed by a set of New England states. This assessment would be designed to incorporate more rigorous and analytic multiple-choice and open-ended items than many tests currently include and would include strategically selected curriculum-embedded performance assessments at the classroom level that can be part of the summative evaluation, while also providing formative information.

These curriculum-embedded components would be developed around core concepts or major skills that are particularly salient in evaluating students' progress in English language arts and mathematics. (Eventually, work on science could be included.) Exemplars to evaluate and build upon are already available in many states and in nations like England that have developed a set of "tests and tasks" for use in classrooms that help teachers evaluate students' learning in relation to well-described learning progressions in reading, writing, mathematics, and other subjects.

Curriculum-embedded components would link to the skills evaluated in the "on-demand" test, allowing for more ambitious tasks that take more time and require more student effort than can be allocated in a 2 or 3-hour test on a single day; these components would evaluate skills in ways that expect more student-initiated planning, management of information and ideas, interaction with other materials and people, and production of more extended responses that reveal additional abilities of students (oral presentations, exhibitions, and product development, as well as written responses) that are associated with college and career success.

In the context of summative assessments, curriculum-embedded tasks would be standardized, scored in moderated fashion, and scores would be aggregated up to count as part of the external assessment. Curriculum-embedded assessments would also include marker tasks that are designed to be used formatively to check for essential understandings and to give teachers useful information and feedback as part of ongoing instruction. Thoughtful curriculum guidance would outline the scaffolding and formative assessment needed to prepare students to succeed on the summative assessments.

All components of the system would incorporate **principles of universal design** that seek to remove construct-irrelevant aspects of tasks that could increase barriers for non-native English speakers and students with other specific learning needs. In addition, designers who are skilled at developing linguistically supportive assessments and tests for students with learning disabilities would be engaged from the beginning in considering how to develop the assessments for maximum access, as well as how to design appropriate accommodations and modifications to enable as many students as possible to be validly assessed within the system.

The emphasis on evaluating **student growth over time** and on tying standards to a conception of learning progressions should encourage a growth oriented frame for both the "on-demand" examination and the more extended classroom assessments. The Consortium may consider the viability of incorporating computer-based adaptive testing that creates vertically scaled assessments based on the full range of learning progressions in ELA and math. This would allow students to be evaluated in ways that give greater information about their abilities and their growth over time. This approach would not preclude the evaluation of grade-level standards, which could be part of any students' assessment, nor would it preclude a significant number of constructed response, open-ended items, as the technology for machine-scoring structured open-ended items is now fairly well-developed. Strategic use of partial teacher scoring for these items would also be a desirable element of the system to support teachers' understanding of the standards and assessments, and their planning for instruction.

The emphasis on evaluating student growth should also inform the development of the curriculum-embedded elements of the system, which should be selected or developed to strategically evaluate students' progress along the learning continuum. Centrally developed tasks administered and scored by teachers with moderation (see below), using common rubrics, would be part of the set of reported scores. In states with experience and capacity, it may be possible to begin to incorporate information about student learning that teachers develop from their own classroom evidence, linked to the standards and learning progressions and guided by the curriculum frameworks. This could be an optional aspect of the Consortium's work for states and communities with interest and capacity.

At the **high school level**, the Consortium might explore one or both of two options for assessment:

- **Course- or syllabus-based systems** like those in England, Australia, Singapore, Hong Kong, Alberta (Canada), as well as the International Baccalaureate. Generally conceptualized as end-of-course-exams in this country, this approach should become a more comprehensive course assessment approach like that pursued in these other countries. Such an approach would include within-course performance assessments that count toward the examination score, as well as high-quality assessment end-of-course components that feature constructed response as well as selected response items. Within-course performance assessments would tap central modes of inquiry in the disciplines, ensuring that students have the opportunity to engage in scientific investigations, literary analyses and other genres of writing, speaking and listening; mathematical modeling and applications; social scientific research. Such an approach might require an ELA and math assessment at a key juncture that evaluates an appropriate benchmark level for high school standards, and then, as in high-achieving nations, allow for pursuit of other courses/ assessments that are selected by students

according to their interests and expertise. These could serve as additional information on the diploma for colleges and employers.

- **Standards-driven systems** that might include a more comprehensive benchmark assessment in ELA and mathematics complemented by collections of evidence that demonstrate students' abilities to meet certain standards within and across the disciplines. This set of assessments would allow more curriculum flexibility in how to meet the standards. Systems like these are used in some provinces in Canada and Australia, in states like Rhode Island, Wyoming, Nebraska, and New Hampshire, and in systems of schools like the New York Performance Standards Consortium, the Asia Society, and Envision Schools. Sometimes these sets of evidence are organized into structured portfolios, such as the Technology portfolio in New Hampshire and the broader Graduation portfolios in these sets of schools that require specific tasks in each content area, scored with common rubrics and moderation.

- **A mixed model** could combine elements of both course- and standards-driven models, allowing some demonstrations of proficiency to occur in any one of a range of courses (rather than a single, predetermined course) or even outside the bounds of a course, like the efforts by some states to allow students to pass courses via demonstrations of competence rather than seat time (e.g. NH, OH). Such a system could also include specific components intended to develop and display research and inquiry skills that might also be interdisciplinary, such as the Project Work requirements in England, Singapore, and the International Baccalaurate, and the Senior Project requirements in Pennsylvania and Ohio.

4. Develop Moderation and Auditing Systems for Teacher-Scored Work: The consortium would develop protocols for managing moderation and auditing systems and training scorers so as to enable comparable, consistent scoring of performance assessments. In other nations' and states' systems that include these features routinely, procedures have been developed to ensure both widespread teacher involvement – often as part of professional development time – and to create common standards and high levels of reliability in evaluating student work. A range of models are possible, and the consortium would serve as a resource to individual states in developing and implementing strong, efficient approaches.

5. Develop Technology to Support the Assessment System: Technology should be used to enhance these assessments in a number of ways: by delivering the assessments; in on-line tasks of higher-order abilities, allowing students to search for information or manipulate variables and tracking information about the students' problem-solving processes; in some cases, scoring the results or delivering the responses to trained scorers / teachers to assess from an electronic platform. Such a platform may also support training and calibration of scorers and moderation of scores, as well as efficient aggregation of results in ways that support reporting and research about the responses. This use of technology is already being used in the International Baccalaureate assessment system, which includes both on-demand and classroom-based components.

In order to gain the efficiency and cost benefits of machine scoring and the teaching and learning benefits of teachers' moderated scoring, a mixed system could be developed where computer-based scoring is incorporated on constructed response tasks where useful – though teachers would score some of these tasks for anchoring and learning purposes – while other tasks that require human scoring engage most teachers in scoring to support improvements in instruction.

RESPONSIBILITIES OF ALL SEAs PARTICIPATING IN THE CONSORTIUM

1) Each participating SEA in the Consortium will appoint a key contact person.

2) These key contacts from each State will maintain frequent communication with the parties administering the Balanced Assessment Consortium to facilitate cooperation under this MOU.

3) Participating SEA grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the whole grant period.

This Non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

SEA Superintendent/- Participating State Chief/Commissioner (or equivalent authorized signatory)

Christopher Koch — Signature

January 8, 2010 — Date

Christopher A. Koch, Ed.D. — Print Name

State Superintendent of Education — Title

Please email this signed page to

Tammy Morrill
Tammy.Morrill@maine.gov

****PLEASE email this signed page only by January 7, 2010****

Appendix B2-6

Balanced Consortium Participants

Alabama	Montana
Arizona	Nebraska
Arkansas	New Hampshire
California	New Jersey
Connecticut	North Carolina
Delaware	North Dakota
Illinois	Ohio
Indiana	Oklahoma
Iowa	Pennsylvania
Georgia	Rhode Island
Kansas	South Carolina
Kentucky	South Dakota
Maine	Tennessee
Maryland	Utah
Massachusetts	Washington DC
Michigan	West Virginia
Mississippi	Wisconsin
Missouri	Wyoming

Total: 36 states

Appendix B2-7

SMARTER Consortium MOU

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, Illinois, Minnesota, Nebraska, Oregon, Tennessee, Utah, Washington, Wisconsin and Wyoming to initiate a consortium of states (Consortium) to serve as a framework of collaboration as required to submit a proposal for a Multi-State Consortium Common Assessment Race to the Top grant. The working title for the proposal is the "Summative Multi-State Assessment Resources for Teachers and Educational Researchers" (SMARTER). In the event the proposal is approved and fully funded by the U.S. Department of Education, the final proposal will serve as the official agreement.

The signatory states shall be referred to as "Lead States" and hereby authorize Oregon to be the signatory for the Lead States in entering into MOUs with additional states that desire to participate under the same terms (Participating States). The terms of the MOU among the Lead States and between the Lead States and subsequent Participating States are set forth below.

1. States in the Consortium will assign a key contact to assist in the drafting of the proposal, and to the extent practicable will engage their teachers, school and district administrators and institutions of higher education in the development and review of the proposal to ensure the design of the assessment system meets the needs of a variety of stakeholders.

2. States may withdraw from the Consortium prior to the establishment of the draft budget for the proposal. The anticipated date for the draft budget is 30 days before the proposal is due to the U.S. Department of Education.

3. States in the Consortium agree in principle to the following elements to be included in a proposal to the U.S. Department of Education:
    a. The purpose of the proposal is to develop a high quality summative assessment system that is aligned to the Common Core Standards, mutually adopted by Consortium states.
    b. The assessment system will use online adaptive tests, innovative item design and open-ended items to assess the full breadth of cognitive demand described by the Common Core Standards.
    c. Proposal writing will be governed by staff from the Lead States that have agreed to this MOU. Governance protocols for proposal development will be established by 2/15/2010.
    d. If funded, the assessment system will be governed by staff from states that are members of the Consortium, and will be guided with the support of selected technical experts. Governance protocols for the assessment system will be a deliverable of the grant.
    e. The assessment system will include teachers, school and district administrators, state departments of education and institutions of higher education in the design, administration, scoring and reporting of the assessments.
    f. States in the Consortium will report student, school, district and state results based upon a single common set of rigorous achievement standards. Additionally, states in the consortium may choose to report student achievement benchmarked to a variety of achievement standards including NAEP, international assessments, and benchmarks predictive of student success in college and careers.
    g. States in the Consortium will use the summative assessment system to measure school and district effectiveness to meet federal accountability requirements
    h. The assessments will be designed based on principles of Universal Design and will be consistent with professional standards as described by the APA/AERA/NCME *Standards for Educational and Psychological Testing*.
    i. The Consortium will coordinate with the MOSAIC consortium as appropriate and with other interested multi-state formative and benchmark assessment initiatives so that schools and districts will have access to a variety of high quality instructionally supportive assessment options that together yield a coherent balanced assessment system.
    j. The assessment system will use open source software applications accessible to any vendor procured by states in the Consortium.

k. States in the Consortium will create and adhere to common administration guidelines including accommodations and allowable tools and assistive devices based on high quality research regarding student learning and assessment.

l. Grant funds allocated to LEAs will in part be used to ensure participation opportunities for teachers. The estimated allocation and purpose of funds will be described in the budget section of the proposal.

m. States in the Consortium will participate in common procurement practices and deliverables to the extent the procurements are directly related to Consortium-wide activities described in the proposal. Lead states will construct a procurement process taking into account minimum procurement standards used in all participating states.

n. States in the Consortium will share a common reporting format consistent with a goal of aligning reporting systems.

o. States in the Consortium will share common security protocols regarding test items.

p. States in the Consortium will work with their institutions of higher education and teacher preparation institutions to ensure teachers are prepared to use and contribute to the summative assessment system.

This non-binding Memorandum of Understanding shall be effective beginning with the date of the last signature hereon:

Lead State SEA Superintendent/Chief/Commissioner
(or equivalent authorized signatory)

Christopher Koch — January 8, 2010

Signature — Date

Christopher A. Koch, Ed.D. — State Superintendent of Education

Print Name — Title

Please sign and date this agreement by no later than January 8th, 2010.
FAX signed copy to Tony Alpert at: (503) 378-5156 or email scanned copy to Tony.Alpert@state.or.us

Appendix B2-8

SMARTER Consortium Participants

California

Colorado

Delaware

District of Columbia

Hawaii

Idaho

Illinois

Kansas

Kentucky

Michigan

Minnesota

Mississippi

Montana

Nebraska

New York

Ohio

Oregon

South Carolina

Tennessee

Utah

Washington

Wisconsin

Wyoming

Total: 23 States

[Note: New Mexico has submitted a formal statement of intent to participate in the SMARTER consortium, but has not yet submitted an MOU.]

Appendix B2-9

Achieve Consortium Letter of Intent

Achieve

BOARD OF DIRECTORS

CO-CHAIRS

Governor Phil Bredesen
State of Tennessee

Craig R. Barrett
Former CEO/Chairman of the Board
Intel Corporation

BOARD MEMBERS

Governor Jennifer Granholm
State of Michigan

Edward B. Rust, Jr.
Chairman & Chief Executive Officer
State Farm Insurance

Governor Donald L. Carcieri
State of Rhode Island

Mark B. Grier
Vice Chairman
Prudential Financial, Inc.

Jeff Wadsworth
President & Chief Executive Officer
Battelle

Governor Dave Heineman
State of Nebraska

Governor Deval Patrick
State of Massachusetts

CHAIR EMERITUS

Louis Gerstner, Jr.
Former Chairman & CEO
IBM Corporation

PRESIDENT

Michael Cohen

TREASURER

Peter Sayre
Controller
Prudential Financial, Inc.

January 15, 2010

Dr. Christopher Koch
State Superintendent of Education
Illinois State Board of Education
100 North 1st Street
Springfield, IL 62777

Dear Superintendent Koch:

Achieve is pleased to confirm Illinois's participation in an assessment partnership committed to pursuing the development and implementation of summative assessments that are aligned to the common core standards, that can be used within states as part of statewide assessment systems, and that will enable comparability of results across a maximum number of states.

We have received your formal request to join the other states in this partnership and acknowledge your acceptance of the attached Statement of Principles which will guide our collective work.

Illinois's participation in this partnership is critical to its success. We look forward to continuing our important work together in the coming months.

Sincerely,

Michael Cohen

Michael Cohen
President

States Committed to Assessment Partnership
(As of 10:00 EST on January 15, 2010)

1. Alabama
2. Arizona
3. Arkansas
4. California
5. Delaware
6. District of Columbia
7. Florida
8. Georgia
9. Hawaii
10. Illinois
11. Indiana
12. Kentucky
13. Louisiana
14. Maryland
15. Massachusetts
16. Michigan
17. Minnesota
18. New Hampshire
19. New Mexico
20. North Carolina
21. Ohio
22. Oklahoma
23. Pennsylvania
24. Rhode Island
25. Tennessee
26. Utah
27. Wisconsin

1775 Eye Street NW, Suite 410, Washington, D.C. 20006 Phone (202) 419-1540 Fax (202) 828-0911
www.achieve.org

Comparing Student Performance on Common College- and Career-Ready Standards
Statement of Principles

Our state is committed to an education system that prepares all of our students for success in college, careers, and life in the 21st century. We believe in setting *high* expectations for our students and schools that are firmly grounded in what it takes to be successful. We believe in setting *common* expectations across states, and are committed to working with like-minded states to adopt common standards and assessment systems anchored in college and career readiness.

Our state supports common assessments that meet the following principles:

- Aligned to the common core standards
- Anchored in college and career readiness
- Allow for comparison of student results across a maximum number of states
- Enable to the maximum extent possible benchmarking performance against NAEP and international standards
- Cover grades 3 through 8 and high school, including college/career ready measures at the end of high school
- Address three overarching goals: measuring student proficiency, ensuring accountability, and improving teaching and learning
- Enable measurement of student achievement and growth
- Are summative in nature but designed in a manner consistent with more comprehensive assessment systems that also include interim and formative assessments
- Provide valid and reliable measures of student knowledge, understanding of, and ability to apply crucial concepts through the use of a variety of item types and formats
- Leverage technology and economies of scale in order to minimize costs and create assessments that accurately measure student performance
- Provide for timely release of results to better inform practice and support decision-making
- Include the assessment of students identified with disabilities and English language learners and to the extent feasible, use universal design principles

We understand that Achieve will work with other national partners to build on the work of the common core standards and convene states to pursue a common assessment strategy that meets these principles. We are prepared to work with Achieve and its partners in as large a consortium of states as possible to explore the development and implementation of summative assessments that are aligned to the common core standards, that can be used within states as part of statewide assessment systems, and that will enable comparability of results across states. We understand that in pursuing this effort, Achieve and its partners will work closely with other consortia that have been formed to explore areas of common ground and determine whether and how efforts could be combined to achieve comparability of results.

Appendix B2-10

Achieve Consortium Participants

Alabama	Massachusetts
Arizona	Michigan
Arkansas	Minnesota
California	New Hampshire
Delaware	New Mexico
District of Columbia	North Carolina
Florida	Ohio
Georgia	Oklahoma
Hawaii	Pennsylvania
Illinois	Rhode Island
Indiana	Tennessee
Kentucky	Utah
Louisiana	Wisconsin
Maryland	

Total: 27 states

9110440_v1

[1] Eight of these were high-performers on either TIMSS, PISA or both: Belgium, Canada [Alberta], Chinese Taipei, Finland, Hong Kong, Japan, Korea, and Singapore. England and Ireland, which have uneven performances on international assessments, were included because of their cultural links to the United States. China and India were included because of their growing global competitiveness.

[2] Differences in language have a greater impact on the teaching and learning of language arts than of mathematics, so the teams looked primarily at English-speaking countries. All were high-performers on PISA except Singapore, which did not participate, and England, which as in mathematics was selected partly for its cultural links to the United States.