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A-1: GLOSSARY

ACT – American College Test
ADP – American Diploma Project
AP – Advanced Placement
ARRA – American Recovery and Reinvestment Act of 2009
AYP – Adequate Yearly Progress
CCC – Common Core Certified
CER – Center for Education Reform
CHE – Indiana Commission for Higher Education
CICF – Central Indiana Community Foundation
CPT—Common Planning Time
CSP – Charter School Program
DIBELS – Dynamic Indicators of Basic Early Literacy Skills
DWD – Department of Workforce Development
ED – United States Department of Education
ELL – English Language Learners
F/R Lunch – Free and Reduced Lunch
FWCS – Fort Wayne Community Schools
IAC – Indiana Administrative Code
IC – Indiana Code
IDEA – The Individuals with Disabilities Education Act
IDOE – Indiana Department of Education
IEP – Individualized Education Plan
IPS – Indianapolis Public Schools
ISTEP+ - Indiana Statewide Testing for Educational Progress
ITF – The New Teacher Project's Indianapolis Teaching Fellows program
IUPUI- Indiana University Purdue University Indianapolis
IWIS – Indiana Workforce and Education Data System
LEA – Local Education Agency. Also known as "school corporation" or "school district."
LEP – Limited English Proficiency
MAP – NWEA's Measures of Academic Progress test
MOU – Memorandum of Understanding
NAEP – National Assessment of Educational Progress, or "The Nation's Report Card"
NCIEA-National Center for the Improvement of Educational Assessment
NTC- New Teacher Center
NIET- National Institute for Excellence in Teaching
NTHS – New Tech High School
NWEA – Northwest Evaluation Association
PSB- Indiana Professional Standards Board
PLC- Professional Learning Community
PLTW – Project Lead the Way
PSAT – Preliminary Scholastic Assessment Test
QSCB – Qualified School Construction Bonds (QSCB)
QZAB – Qualified Zone Academy Bonds
RFP – request for proposals
RttT – Race to the Top

SAT – Scholastic Assessment Test (formerly known as the Scholastic Aptitude Test)
SLDS – Statewide Longitudinal Data Systems
SPN – School Personnel Number
SSN – Social Security Number
STEM – Science, Technology, Engineering, and Mathematics
STN – Student Test Number
TFA – Teach For America
TIMSS – Third International Mathematics and Science Study
TNTP – The New Teacher Project
TtT- Transition to Teaching
TAP- Teacher Advancement Program

OTHER TERMS

Fast Forward means Indiana's Race to the Top plan

Generation 2 means the next generation of diagnostic assessment technology.

Indiana Education Roundtable, or **Education Roundtable** is an entity whose members are jointly appointed by the Governor and State Superintendent of Public Instruction. Membership is balanced between K-12, higher education, business and community representatives in addition to state legislators.

Learning Connection is a newly-developed online portal, available at no cost to all Indiana educators, which provides data tools and resources for school improvement.

Turnaround Management Organizations are external organizations that assume responsibility for implementing and overseeing turnarounds and restarts in eligible schools.

Office is the entity, contracted by IDOE, which is responsible for managing the time-intensive, yet relatively short-term, responsibilities associated with implementing a grant program of this scale. Also called the "Support and Accountability Office."

P.L. 221 or **Public Law 221** refers to the public law passed in 1999 establishing Indiana's comprehensive K-12 accountability system.

Restructuring refers to a requirement in the No Child Left Behind Act of 2001 which requires a school identified as chronically failing for five years or more to undertake rapid changes that affect how the school is led and how instruction is delivered.

School Corporation is a term used synonymously with "LEA" or "school district."

State Board means the Indiana State Board of Education.

Support and Accountability Office is the entity, contracted by IDOE, which is responsible for managing the time-intensive, yet relatively short-term, responsibilities associated with implementing a grant program of this scale. Also called the "Office."

Wilson means the Woodrow Wilson Indiana Teaching Fellows program.

A-2: MODEL PARTNERSHIP AGREEMENT

5385

FAST FORWARD: INDIANA'S BID TO RACE TO THE TOP

PARTNERSHIP AGREEMENT

BETWEEN

INDIANA DEPARTMENT OF EDUCATION AND PARTICIPATING LEA

This Partnership Agreement ("**Agreement**") is entered into by and between the Indiana Department of Education ("**Indiana**" or "**IDOE**") and Indianapolis Public Schools ("**Participating LEA**"). The purpose of this Agreement is to establish a framework of collaboration, as well as to articulate specific roles and responsibilities in support of Indiana in its implementation of an approved Race to the Top grant project.

Recitals

1. Indiana's students are not adequately prepared to compete in the global marketplace. The IDOE and the Participating LEA are fully and equally committed to aggressively pursuing reforms that level the playing field and remove all barriers to student academic achievement and career preparation.
2. Through the American Recovery and Reinvestment Act of 2009, Congress has allocated an unprecedented $4.3 billion for a competitive grant program, the Race to the Top.
3. The Race to the Top program is designed to reward those states that are creating the conditions for education innovation and reform and implementing comprehensive and systematic changes, addressing each of the following areas:
    a) Adopting internationally benchmarked standards and assessments that prepare students for success in college and the workplace;
    b) Recruiting, developing, retaining and rewarding effective teachers and principals;
    c) Building data systems that measure student success and inform teachers and principals how they can improve their practices; and
    d) Turning around struggling schools.
4. Recognizing the window of opportunity for meaningful change that has been opened by the Race to the Top, the IDOE and Participating LEA are devoted to the swift and full implementation of the uncompromising and necessary reforms contained in this Agreement, without alteration, if Indiana is selected for Race to the Top funding.

NOW, THEREFORE, the IDOE and Participating LEA agree as follows:

Agreement

1) SCOPE OF WORK

The Preliminary Scope of Work, starting on page four of this Agreement, indicates which portions of Indiana's proposed reform plans ("**Fast Forward**") the Participating LEA agrees to implement. The Participating LEA acknowledges that it must agree to implement all applicable portions of Fast Forward in order to participate in Indiana's Race to the Top bid.

2) PROJECT ADMINISTRATION

A. PARTICIPATING LEA RESPONSIBILITIES

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

1) As a condition for participating in – and receiving an allocation of funds under – the Fast Forward program, must enter into an agreement (the "**Implementation Agreement**") with the IDOE that will describe more specifically the mutual responsibilities of the IDOE and Participating LEA for planning and implementing provisions of Fast Forward. The Implementation Agreement will be incorporated in or attached to the Work Plan, which must be provided to, and approved by, the IDOE.

   The Implementation Agreement will include a detailed work plan (the "**Work Plan**"), prepared by the Participating LEA and approved by the IDOE, describing specific goals, activities, timelines, budgets, key personnel, and annual targets for key performance measures. The Work Plan must be consistent with the Participating LEA's Preliminary Scope of Work in this Agreement, with the approved Fast Forward plan, and with further guidance the IDOE may provide. The IDOE will approve the Participating LEA for funding based on the scope and quality of the Work Plan and the Participating LEA's capacity to implement the plan and address at the local level applicable portions of Fast Forward in a meaningful and high quality way. The Implementation Agreement between the IDOE and the Participating LEA will also detail the IDOE's responsibilities for providing or coordinating technical assistance, professional development, and other support for the Participating LEA in carrying out these functions, and how IDOE and Participating LEA activities will be sequenced.

2) Will implement the Participating LEA plan as identified in the Preliminary Scope of Work of this agreement;

3) Will, over the course of the project, work in good faith with the IDOE to identify needs for modifications to the project and to make appropriate modifications in order to achieve the core goals of the project;

4) Will actively participate in all relevant convenings, communities of practice, or other practice-sharing events that are organized or sponsored by the IDOE or by the U.S. Department of Education ("**ED**");

5) Will post to any website specified by the IDOE and/or ED, in a timely manner, all non-proprietary products and lessons learned that were developed using funds under the Race to the Top grant;

6) Will participate, as requested, in any evaluations of this grant conducted by the IDOE and/or ED;

7) Will be responsive to IDOE and/or ED requests for information including, but not limited to, requests regarding the status of the project based on program measures established by the IDOE, project implementation, outcomes, and any problems anticipated or encountered; and

8) Will participate in meetings and telephone conferences with the IDOE 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 the Fast Forward plan.

B. **IDOE RESPONSIBILITIES**

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

1) Work collaboratively with, and support the Participating LEA in carrying out, the Participating LEA's plan set forth in the Work Plan and in the Implementation Agreement;

2) Timely distribute the Participating LEA's portion of Race to the Top grant funds during the course of the project period and in accordance with the Participating LEA's approved Work Plan and with the IDOE's established distribution schedule;

3) Provide feedback on the Participating LEA's status updates, annual reports, any interim reports, and project plans and products; and

4) Provide or coordinate technical assistance, professional development, and support consistent with Section 2(A)(1) above.

C. **JOINT RESPONSIBILITIES**

1) The IDOE and the Participating LEA will collaborate in good faith to ensure alignment and coordination of IDOE and local planning and implementation activities in order to effectively and efficiently achieve the core goals of Fast Forward, consistent with their respective roles under Indiana law and policy;

2) The IDOE and the Participating LEA will each appoint a key contact person for the Race to the Top grant;

3) These key contacts from the IDOE and the Participating LEA will maintain frequent communication to facilitate cooperation under this Agreement;

4) IDOE and Participating LEA grant personnel will work together to determine appropriate timelines for project updates and status reports throughout the grant period.

5) IDOE and Participating LEA grant personnel will negotiate in good faith to continue to achieve the overall goals of Indiana's Race to the Top grant, even when the Fast Forward plan requires modifications that affect the Participating LEA, or when the Participating LEA Work Plan requires modifications.

3) STATE RECOURSE FOR PARTICIPATING LEA NON-PERFORMANCE

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

4) ASSURANCES

The Participating LEA hereby certifies and represents that it:

A. Has all requisite power and authority to execute this Agreement;

B. Is familiar with Indiana's Race to the Top grant application and is supportive of and will work to implement all applicable portions of the Fast Forward plan, as defined by the IDOE, and consistent with the Preliminary Scope of Work;

C. Will, if Indiana's application is funded, provide a Work Plan within the timeframe established by IDOE and ED;

D. Will enter into an Implementation Agreement with the IDOE; and

E. Will comply with all of the terms of the Race to the Top grant, the IDOE's subgrant, and all applicable federal and state laws and regulations, including 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).

5) MODIFICATIONS

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

6) DURATION/TERMINATION

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

Preliminary Scope of Work

Consistent with federal requirements and criteria, Fast Forward addresses education reforms in each of the areas prescribed by the RttT application. The plan articulates Indiana's policies and goals in each of these areas and an overall strategy for accomplishing and monitoring the goals. Many of the goals relate to what happens in school districts, schools, and classrooms. The goals can

only be accomplished if Participating LEAs work in coordination with the IDOE to plan and implement reforms at the local level in ways that are aligned with Indiana's plan.

In signing this Partnership Agreement, the Participating LEA signifies its intent to be bound to the Fast Forward plan, to collaborate with the IDOE in modifying state and local plans over the course of the project as appropriate to achieve core goals, and to act in good faith in implementing Indiana's Fast Forward plan in each of the areas described below. If the IDOE receives a RttT grant, allocation of funds to the Participating LEA will be contingent on the development of a detailed local Work Plan and an IDOE-Participating LEA Implementation Agreement that will describe local and IDOE responsibilities in these areas in greater detail.

Participating LEAs must agree to participate in each of the applicable elements of Indiana's reform plans outlined below. The IDOE will determine if a particular element (e.g. Turnaround) is inapplicable to a Participating LEA.

Elements of State Reform Plans	**LEA Participation (Y/N)**	**Comments from LEA (optional)**
B. Standards and Assessments – The LEA will participate in implementing appropriate aspects of Indiana's Plan to develop and implement high-quality standards and assessment systems, including but not limited to the following:		
(B)(1) Supporting the state's development and adoption of common standards	Yes	
(B)(2) Supporting the state's development and implementation of common, high-quality assessments	Yes	
(B)(3) Supporting the transition to enhanced standards and high-quality assessments	Yes	
C. Data Systems to Support Instruction – The LEA will participate in implementing all aspects of Indiana's Plan to develop, implement, and use a statewide longitudinal data system, including but not limited to the following:		
(C)(1) Supporting the state in fully implementing a statewide longitudinal data system	Yes	
(C)(3) Using data to improve instruction:		
(i) Use of local instructional improvement systems	Yes	
(ii) Professional development on use of data	Yes	
(iii) Availability and accessibility of data to researchers	Yes	

Elements of State Reform Plans	LEA Participation (Y/N)	Comments from LEA (optional)
D. Great Teachers and Leaders – The LEA will participate in implementing all aspects of Indiana's Plan to develop and implement systems to enhance teacher and leader effectiveness, including but not limited to the following:		
(D)(1) Partnering with high-quality pathways for aspiring teachers and principals	Yes	
(D)(2) Improving teacher and principal effectiveness based on performance:		
(i) Measure student growth	Yes	
(ii) Implement evaluation systems	Yes	
(iii) Conduct annual evaluations	Yes	
(iv)(a) Use evaluations to inform professional development	Yes	
(iv)(b) Use evaluations to inform compensation, promotion, and retention	Yes	
(iv)(c) Use evaluations to inform tenure and/or full certification	Yes	
(iv)(d) Use evaluations to inform removal	Yes	
(D)(3) Ensuring equitable distribution of effective teachers and principals in:		
(i) High-poverty and/or high-minority schools	Yes	
(ii) Hard-to-staff subjects and specialty areas	Yes	
(D)(5) Providing effective support to teachers and principals through:		
(i) Quality professional development	Yes	
(ii) Measure effectiveness of professional development	Yes	
E. Turning Around the Lowest-Achieving Schools – The LEA will participate in implementing all aspects of Indiana's Plan to intervene and turn around the lowest-achieving schools, including but not limited to the following:		
(E)(1) Supporting state efforts to intervene in the lowest-achieving schools and LEA's	Yes	
(E)(2) Turning around the lowest-achieving schools	Yes	

SIGNATURES

LEA Superintendent (or equivalent authorized signatory) - required:

Eugene G. White 1-5-10

Signature/Date

EUGENE G. WHITE

Print Name/Title

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

Signature/Date

Dr. Michael D Brown

Print Name/Title

Local Teachers' Association Leader (if applicable):

Ann M. Wilkins 1-8-10

Signature/Date

ANN M. WILKINS IEA PRESIDENT

Print Name/Title

State Superintendent of Public Instruction - required:

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

, 1-13-10

Signature/Date

Tony Bennett, Superintendent of Public Instruction

Print Name/Title

A-3: PARTICIPATING LEAs - DETAILED TABLE FOR SECTION (A)(1)(ii)(b)

Detailed Table for (A)(1)

This table provides detailed information on the participation of each participating LEA (as defined in this notice). States should use this table to complete the Summary Tables above. (Note: If the State has a large number of participating LEAs (as defined in this notice), it may move this table to an appendix. States should provide in their narrative a clear reference to the appendix that contains the table.)

	LEA Demographics			Signatures on MOUs			MOU Terms	Preliminary Scope of Work – Participation in each applicable Plan Criterion															
Participating LEAs	# of Schools	# of K-12 Students	# of K-12 Students in Poverty	LEA Supt. (or equivalent)	President of local school board (if applicable)	President of Local Teachers Union (if applicable)	Uses Standard Terms & Conditions?	(B)(3)	(C)(3)(i)	(C)(3)(ii)	(C)(3) (iii)	(D)(2) (i)	(D)(2) (ii)	(D)(2) (iii)	(D)(2)(iv)(a)	(D)(2)(iv)(b)	(D)(2)(iv)(c)	(D)(2) (iv)(d)	(D)(3)(i)	(D)(3)(ii)	(D)(5)(i)	(D)(5)(ii)	(E)(2)
Name of LEA here				Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Yes/ No	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA	Y/ N/ NA
Adams Central Community Schools	3	1,171	156	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Alexandria Community School Corporation	3	1,490	612	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Argos Community Schools	2	655	225	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Attica Consolidated School Corporation	2	964	316	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Avon Community School Corporation	11	8,493	1,284	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Barr-Reeve Community Schools	3	723	95	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Bartholomew Consolidated School Corporation.	15	11,206	3,621	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Batesville Community School Corporation	4	2,083	315	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baugo Community Schools	5	1,955	590	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Beech Grove City	5	2,417	1,082	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Schools																							
Benton Community School Corporation	4	1,867	658	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Blackford County Schools	5	2,037	787	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Bloomfield School District	2	1,078	312	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Blue River Valley Schools	2	732	174	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Bremen Public Schools	2	1,448	422	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Brown County Schools	6	2,193	791	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Brownsburg Community School Corporation	9	7,340	984	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Brownstown Central Community School Corporation	5	1,771	538	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C A Beard Memorial School Corporation	5	1,321	423	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cannelton City Schools	1	285	168	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Carmel Clay Schools	17	15,593	912	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Carroll Consolidated School Corporation	2	1,087	255	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cass Township Schools	1	245	49	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Caston School Corporation	2	803	268	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Center Grove Community School Corporation	9	7,638	890	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Centerville-Abington Community Schools	4	1,667	459	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Central Nine Career Center	1	Data not available	Data not available	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Central Noble Community School Corporation	4	1,361	399	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Clark-Pleasant Community School Corporation	8	5,781	1,722	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Clarksville	4	1,448	624	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Community School Corporation																							
Clinton Central School Corporation	2	1,069	292	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cloverdale Community Schools	3	1,351	625	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Community Schools of Frankfort	5	3,226	1,837	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Concord Community Schools	6	4,639	2,130	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Covington Community School Corporation	3	1,012	274	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cowan Community School Corporation	2	722	126	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Crawford County Community School Corporation	6	1,604	755	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Crawfordsville Community Schools	5	2,260	1,040	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Crown Point Community School Corporation	10	7,577	1,207	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Culver Community School Corporation	4	1,076	465	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Daleville Community Schools	2	730	171	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Danville Community School Corporation	4	2,624	460	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Decatur County Community Schools	4	2,195	696	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DeKalb Co. Central United School District	6	4,037	1,146	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DeKalb County Eastern Community School District	3	1,451	515	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Delaware Community School Corporation	6	2,716	676	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Dewey Township Schools	1	160	29	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Duneland School Corporation	9	6,063	914	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
East Allen County Schools	19	10,158	3,647	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
East Gibson School Corporation	5	1,022	285	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

East Noble School Corporation	7	3,961	1,395	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
East Porter County School Corporation	6	2,374	301	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
East Washington School Corporation	3	1,642	615	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Eastbrook Community School Corporation	6	1,729	418	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Eastern Greene Schools	3	1,379	450	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Eastern Hancock County Community School Corporation	3	1,099	196	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Eastern Howard School Corporation	2	1,300	265	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Eastern Pulaski Community School Corporation	3	1,285	392	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Elkhart Community Schools	19	13,280	7,742	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Elwood Community School Corporation	4	1,745	907	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Evansville Vanderburgh School Corporation	39	22,568	10,346	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fairfield Community Schools	4	2,041	358	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fayette County School Corporation	11	4,184	2,120	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fort Wayne Community Schools	52	31,357	17,102	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Franklin Community School Corporation	8	5007	1,543	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Franklin County Community School Corporation	5	3,002	974	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Franklin Township Community School Corporation	12	9,061	2,092	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Frankton-Lapel Community Schools	5	2,749	619	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fremont Community Schools	3	1,118	348	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Frontier School Corporation	2	816	167	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Garrett-Keyser-Butler Community School Corporation	3	1,727	631	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Gary Community School Corporation	15	11,075	7,546	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Goshen Community Schools	10	6,141	3,439	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Greater Clark County Schools	20	10,970	4,395	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Greater Jasper Consolidated Schools	5	3,252	572	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Greencastle Community School Corporation	5	2,039	664	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Greenfield Central School Corporation	7	4,686	1,076	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Griffith Public Schools	6	2,687	862	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hamilton Community Schools	2	513	143	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hamilton Heights School Corporation	4	2,298	498	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hamilton Southeastern Schools	20	17,937	1,307	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hanover Community School Corporation	4	2,012	366	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Huntington County Community School Corporation	11	5,914	1,840	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Indiana School for the Blind & Visually Impaired	1	167	162	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Indianapolis Public Schools	64	33,372	25,631	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Jac-Cen-Del Community School Corporation	2	893	260	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Jay School Corporation	10	3,620	1,424	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Jennings County School Corporation	9	5,119	2,117	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
John Glenn School Corporation	4	1,870	496	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Kankakee Valley School Corporation	5	3,578	919	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Knox Community School Corporation	3	2,015	984	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Kokomo-Center Township	14	6,672	3,648	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Consolidated School Corporation																							
Lake Central School Corporation	10	10,159	1,164	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lake Ridge Schools	5	2,122	1,499	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lake Station Community Schools	5	1,537	970	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lakeland School Corporation	5	2,167	965	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lanesville Community School Corporation	2	675	94	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
LaPorte Community School Corporation	11	6,358	2,305	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lawrenceburg Community School Corporation	4	1,776	616	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lebanon Community School Corporation	6	3,459	1,098	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Liberty Perry Community School Corporation	4	1,109	349	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Linton-Stockton School Corporation	3	1,353	490	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Logansport Community School Corporation	7	4,263	1,924	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Loogootee Community School Corporation	3	995	227	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Maconaquah School Corporation	4	2,223	808	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Madison Consolidated Schools	9	3,356	1,405	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Madison Grant United School Corporation	5	1,493	446	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Manchester Community Schools	3	1,534	522	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Marion Community Schools	8	4,315	2,412	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Medora Community School Corporation	2	263	151	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Merrillville Community School Corporation	8	6,983	2,705	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Michigan City Area	13	6,432	4,088	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Schools																							
Middlebury Community Schools	7	4,266	931	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Milan Community Schools	3	1,264	325	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mill Creek Community School Corporation	4	1,590	319	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mississinewa Community School Corporation	4	2,440	1079	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mitchell Community Schools	4	1,985	775	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Monroe Central School Corporation	2	992	338	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Monroe County Community School Corporation	20	10,820	2,863	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Monroe-Gregg School District	3	1,539	356	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mooresville Consolidated School Corporation	7	4,505	1,081	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD Bluffton-Harrison	3	1,448	430	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD Boone Township	3	1,128	221	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD of Decatur Township	9	6,336	3,018	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD of Lawrence	17	15,768	6,134	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD of Martinsville Schools	11	5,445	1,823	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD of New Durham Township	2	893	274	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD of North Posey County Schools	4	1,345	229	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD of Perry Township	18	14,416	6,462	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD of Pike Township	13	10,982	4,775	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD of Shakamak Schools	2	883	373	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD of Warren County	4	1,256	336	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD of Warren Township	17	11,957	4,641	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD of Washington Township	11	10,527	4,509	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

MSD of Wayne Township	16	15,807	8,939	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD Southwest Allen County	9	6,981	720	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD Steuben County	6	3,024	1,177	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MSD Wabash County Schools	7	2,475	712	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mt. Vernon Community School Corporation	6	3,679	480	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Muncie Community Schools	14	7,156	4,191	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Nettle Creek School Corporation	2	1,212	313	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
New Albany-Floyd County Consolidated Schools	18	11,856	4,072	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
New Castle Community School Corporation	10	3,881	1,816	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
New Harmony Town and Township Consolidated School Corporation	1	164	46	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
New Prairie United School Corporation	5	2,797	724	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Nineveh-Hensley-Jackson United School Corporation	4	1,871	376	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Noblesville Schools	10	9,010	1,298	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Adams Community Schools	5	2,040	750	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Daviess Community Schools	2	1,096	275	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Gibson School Corporation	4	2,143	819	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Harrison Community Schools	4	2,279	704	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Judson – San Pierre School Corporation	3	1,346	546	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Knox School Corporation	4	1,323	533	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Lawrence Community Schools	15	5,345	1,702	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Miami Community Schools	2	1,108	194	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

North Newton School Corporation	4	1,478	458	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Putnam Community School Corporation	4	1,799	563	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North Spencer County Community School Corporation	6	2,050	380	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
North White School Corporation	5	979	519	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Northeast Dubois County School Corporation	4	993	162	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Northeastern Wayne School Corporation	2	1,115	262	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Northern Wells Community Schools	4	2,577	545	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Northwest Allen County Schools	11	6,331	558	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Northwestern Consolidated School District	3	1,554	329	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Northwestern School Corporation	4	1,587	225	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Oak Hill United School Corporation	5	1,555	360	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Oregon-Davis School Corporation	2	697	300	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Orleans Community Schools	2	812	257	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Paoli Community School Corporation	2	1,606	628	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Penn-Harris-Madison School Corporation	15	10,309	1,897	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Perry Central Community School Corporation	2	1,155	275	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Peru Community Schools	5	2,306	1,056	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Pike County School Corporation	5	2,043	592	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Pioneer Regional School Corporation	2	994	292	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Plymouth Community School Corporation	7	3,518	1,423	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Portage Township Schools	11	8,356	3,153	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Porter Township School Corporation	4	1,591	203	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Prairie Heights Community School Corporation	4	1,563	554	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Randolph Central School Corporation	5	1,682	700	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Randolph Eastern School Corporation	3	965	495	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Randolph Southern School Corporation	2	588	185	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Rensselaer Central Schools	4	1,817	555	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Richland-Bean Blossom Community School Corporation	5	2,810	626	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Richmond Community Schools	13	5,156	3,009	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Rising Sun-Ohio Community School Corporation	2	900	229	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
River Forest Community School Corporation	4	1,563	1,058	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Rochester Community School Corporation	4	1,914	669	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Rockville Community School Corporation	2	811	316	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Rossville Consolidated School Corporation	3	1,042	197	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Rush County Schools	6	2,713	1,010	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Salem Community Schools	4	2,123	874	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
School City of East Chicago	9	5,601	5,025	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
School City of Hammond	20	14,673	10,052	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
School City of Hobart	6	3,888	1,235	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
School City of Mishawaka	11	5,368	2,350	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
School City of Whiting	3	1,025	516	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
School Town of	6	3,407	714	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Highland																							
School Town of Munster	5	4,151	419	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
School Town of Speedway	6	1,509	565	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Scott County District 1	3	1,389	818	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Scott County District 2	6	2,884	1,172	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Seymour Community Schools	7	4,115	1,484	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Shelby Eastern Schools	4	1,468	304	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Shelbyville Central Schools	5	3,881	1,577	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Shenandoah School Corporation	3	1,338	385	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sheridan Community Schools	3	1,117	293	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Shoals Community School Corporation	2	656	261	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Smith-Green Community Schools	3	1,246	241	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
South Adams Schools	3	1,428	469	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
South Bend Community School Corporation	37	21,093	12,698	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
South Dearborn Community School Corporation	6	2,979	886	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
South Gibson School Corporation	4	2,052	308	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
South Harrison Community School Corporation	8	3,180	1,007	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
South Henry School Corporation	2	843	298	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
South Knox School Corporation	2	1,184	258	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
South Montgomery Community School Corporation	6	1,894	497	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
South Newton School Corporation	3	879	336	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
South Putnam School Corporation	4	1,245	366	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
South Ripley Community School	2	1,303	494	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Corporation																							
South Spencer County School Corporation	4	1,464	485	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Southeast Dubois County School Corporation	4	1,400	189	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Southeast Fountain School Corporation	2	1,279	426	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Southeastern School Corporation	3	1,532	335	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Southern Hancock County Community School Corporation	5	3,356	382	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Southern Wells Community Schools	2	784	172	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Southwest Dubois County School Corporation	4	1,714	518	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Southwest Parke Community School Corporation	3	944	420	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Southwest School Corporation	4	1,753	606	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Southwestern Consolidated Schools Shelby County	2	726	173	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Southwestern-Jefferson County School Corporation	2	1,364	564	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Spencer-Owen Community Schools	6	2,912	987	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Springs Valley Community School Corporation	2	955	359	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Switzerland County School Corporation	4	1,506	572	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Taylor Community School Corporation	4	1,429	471	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Tell City – Troy Township School Corporation	3	1,588	533	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Tippecanoe School Corporation	18	11,776	3,089	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Tippecanoe Valley School Corporation	4	2,074	822	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Tipton Community School Corporation	3	1,820	455	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Tri-County School Corporation	3	746	195	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Tri-Creek School Corporation	5	3,665	632	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Triton School Corporation	2	1,059	313	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Turkey Run Community School Corporation	2	557	232	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Twin Lakes School Corporation	6	2,602	886	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Union County College Corner Joint School District	4	1,617	543	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Union School Corporation	2	435	160	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Union Township School Corporation	4	1,722	249	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Union-North United School Corporation	2	1,313	439	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Valparaiso Community Schools	11	6,402	1,275	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Vincennes Community School Corporation	7	2,716	1,185	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Wabash City Schools	4	1,464	710	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Wa-Nee Community School Corporation	5	3,101	900	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Warsaw Community Schools	10	6,903	2,569	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Washington Community Schools	6	2,510	1,134	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Wawasee Community School Corporation	5	3,319	1,142	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Wes-Del Community Schools	2	809	239	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
West Central School Corporation	3	883	314	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
West Clark Community Schools	7	4,190	1,019	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
West Noble School Corporation	4	2,579	1,463	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
West Washington School Corporation	2	889	339	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Western Boone School Corporation	3	1,906	412	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Western School	4	2,508	506	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Corporation																							
Western Wayne Schools	3	1,106	433	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Westview School Corporation	5	2,311	749	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
White River Valley School District	3	860	252	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Whitko Community Schools	4	1,913	562	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Whitley County Consolidated Schools	6	3,615	751	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Yorktown Community Schools	4	2,217	446	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Zionsville Community Schools	7	5,563	190	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
21st Century Charter School at Gary	1	360	304	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ADI Charter Schools, Inc. 1	1	NA (school opens fall 2010)	NA (school opens fall 2010)	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ADI Charter Schools, Inc. 2	1	NA (school opens fall 2010)	NA (school opens fall 2010)	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Anderson Preparatory Academy	1	316	141	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Andrew J Brown Academy	1	660	465	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Aspire Charter Academy	1	494	389	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Beacon Academy	1	49	30	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Campagna Academy	1	127	82	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Charles A Tindley Accelerated School	1	422	211	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cardinal Academy of Muncie	1	NA (school opens fall 2010)	NA (school opens fall 2010)	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Charter School of the Dunes	1	342	247	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Christel House Academy	1	456	329	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Community	1	472	55	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Montessori																							
Decatur Discovery Academy	1	173	60	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Discovery Charter School	1	NA (school opens fall 2010)	NA (school opens fall 2010)	Y	NA	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Dr. Robert H Faulkner Academy	1	191	81	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
East Chicago Lighthouse Charter School	1	356	312	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
East Chicago Urban Enterprise	1	432	311	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fall Creek Academy	1	328	192	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Flanner House Elementary School	1	232	189	Y	N	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fountain Square Academy	1	253	186	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Galileo Charter School	1	254	216	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Gary Lighthouse Charter School	1	648	515	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Geist Montessori Academy	1	127	3	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hammond Academy of Science and Technology	1	NA (school opens fall 2010)	NA (school opens fall 2010)	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hammond Urban Academy	1	NA (school opens fall 2010)	NA (school opens fall 2010)	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Herron High School	1	454	159	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hoosier Academy – Indianapolis	1	425	41	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hoosier Academy – Muncie	1	115	40	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hope Academy	1	29	10	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Imagine Bridge Academy	1	Data not available	Data not available	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Imagine Life Sciences Academy – East	1	692	547	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Imagine Life Sciences Academy –	1	358	161	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

West																							
Imagine MASTer Academy	1	766	437	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Imagine MASTer on Broadway	1	455	355	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Indiana Aerospace	1	NA (school opens fall 2010)	NA (school opens fall 2010)	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Indiana Math and Science Academy	1	483	293	Y	N	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Indianapolis Lighthouse Charter School	1	625	484	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Indianapolis Metropolitan High School	1	343	252	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
International School of Columbus	1	87	9	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Irvington Community School	1	719	259	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Joshua Academy	1	243	152	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
KIPP Indianapolis College Preparatory	1	207	114	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
KIPP LEAD College Preparatory Academy	1	310	233	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Monument Lighthouse Charter School	1	561	464	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
New Community School	1	173	40	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Options Charter School – Carmel	1	131	30	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Options Charter School – Noblesville	1	136	38	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Paramount School of Excellence	1	NA (school opens fall 2010)	NA (school opens fall 2010)	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Renaissance Academy	1	150	15	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Rock Creek Academy	1	NA (school opens fall 2010)	NA (school opens fall 2010)	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Rural Community Schools, Inc.	1	133	57	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SENSE Charter Schools	1	280	194	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Signature School	1	303	18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Stonegate Early College High Schools	1	181	84	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
The Bloomington Project School	1	199	76	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
The Challenge Foundation Academy	1	420	260	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
The Indianapolis Project School	1	181	112	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Thea Bowman Leadership Academy	1	1,450	736	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Timothy L. Johnson Academy	1	232	215	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Veritas Academy	1	165	89	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
West Gary Lighthouse Charter School	1	549	452	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Xavier School of Excellence	1	258	163	Y	Y	NA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

A-4: INDIANA'S REFORM GOALS

State Goals				Actual Data: Baseline (Current school year or most recent)	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	End of SY 2010-2011	End of SY 2011-2012	End of SY 2012-2013	End of SY 2013-2014	Difference btwn 2014 and Baseline	Difference btwn 2014 and Baseline
#	**Impact Area**	**Ambitious Yet Achievable Goal**	**Subgroup**	**Baseline Data**	**Annual Targets with RttT funding**				**Annual Targets without RttT funding**				**with RTTT**	**without RttT**
1	Student Achievement NAEP, Grade 4 Reading	By 2014, 39% of students will perform at the Proficient level on NAEP Grade 4 Reading	All	33%	–	36%	–	39%	–	33%	–	34%	6%	1%
2	Student Achievement NAEP, Grade 4 Math	By 2014, 52% of students will perform at the Proficient level on NAEP Grade 4 Math	All	46%	–	49%	–	52%	–	46%	–	47%	6%	1%
3	Student Achievement NAEP, Grade 8 Reading	By 2014, 37% of students will perform at the Proficient level on NAEP Grade 8 Reading	All	31%	–	34%	–	37%	–	31%	–	32%	6%	1%

4	Student Achievement NAEP, Grade 8 Math	By 2014, 41% of students will perform at the Proficient level on NAEP Grade 8 Math	All	35%	–	38%	–	41%	–	35%	–	36%	6%	1%
5	Student Achievement NAEP, Grade 4 Reading	By 2014, 42% of students will perform at the Proficient level on NAEP Grade 4 Reading	White	37%	–	39%	–	42%	–	37%	–	38%	5%	1%
6	Student Achievement NAEP, Grade 4 Math	By 2014, 57% of students will perform at the Proficient level on NAEP Grade 4 Math	White	52%	–	54%	–	57%	–	52%	–	53%	5%	1%
7	Student Achievement NAEP, Grade 8 Reading	By 2014, 40% of students will perform at the Proficient level on NAEP Grade 8 Reading	White	35%	–	37%	–	40%	–	35%	–	36%	5%	1%
8	Student Achievement NAEP, Grade 8 Math	By 2014, 45% of students will perform at the Proficient level on NAEP Grade 8 Math	White	40%	–	42%	–	45%	–	40%	–	41%	5%	1%
9	Student Achievement NAEP, Grade 4 Reading	By 2014, 27% of students will perform at the Proficient level on NAEP Grade 4 Reading	Black	12%	–	17%	–	27%	–	13%	–	14%	15%	2%

10	Student Achievement NAEP, Grade 4 Math	By 2014, 29% of students will perform at the Proficient level on NAEP Grade 4 Math	Black	14%	–	19%	–	29%	–	15%	–	16%	15%	2%
11	Student Achievement NAEP, Grade 8 Reading	By 2014, 25% of students will perform at the Proficient level on NAEP Grade 8 Reading	Black	10%	–	15%	–	25%	–	11%	–	12%	15%	2%
12	Student Achievement NAEP, Grade 8 Math	By 2014, 24% of students will perform at the Proficient level on NAEP Grade 8 Math	Black	9%	–	14%	–	24%	–	10%	–	11%	15%	2%
13	Student Achievement NAEP, Grade 4 Reading	By 2014, 32% of students will perform at the Proficient level on NAEP Grade 4 Reading	Hispanic	17%	–	22%	–	32%	–	18%	–	19%	15%	2%
14	Student Achievement NAEP, Grade 4 Math	By 2014, 41% of students will perform at the Proficient level on NAEP Grade 4 Math	Hispanic	26%	–	31%	–	41%	–	27%	–	28%	15%	2%

15	Student Achievement NAEP, Grade 8 Reading	By 2014, 36% of students will perform at the Proficient level on NAEP Grade 8 Reading	Hispanic	21%	–	26%	–	36%	–	22%	–	23%	15%	2%
16	Student Achievement NAEP, Grade 8 Math	By 2014, 35% of students will perform at the Proficient level on NAEP Grade 8 Math	Hispanic	20%	–	25%	–	35%	–	21%	–	22%	15%	2%
17	Student Achievement NAEP, Grade 4 Reading	By 2014, 29% of students will perform at the Proficient level on NAEP Grade 4 Reading	Economically disadvantaged	19%	–	24%	–	29%	–	20%	–	21%	10%	2%
18	Student Achievement NAEP, Grade 4 Math	By 2014, 40% of students will perform at the Proficient level on NAEP Grade 4 Math	Economically disadvantaged	30%	–	35%	–	40%	–	31%	–	32%	10%	2%
19	Student Achievement NAEP, Grade 8 Reading	By 2014, 26% of students will perform at the Proficient level on NAEP Grade 8 Reading	Economically disadvantaged	16%	–	21%	–	26%	–	17%	–	18%	10%	2%
20	Student Achievement NAEP, Grade 8 Math	By 2014, 30% of students will perform at the Proficient level on NAEP Grade 8 Math	Economically disadvantaged	20%	–	25%	–	30%	–	21%	–	22%	10%	2%

21	Student Achievement NAEP, Grade 4 Reading	By 2014, 20% of students will perform at the Proficient level on NAEP Grade 4 Reading	SPED	13%	–	15%	–	20%	–	14%	–	15%	7%	2%
22	Student Achievement NAEP, Grade 4 Math	By 2014, 32% of students will perform at the Proficient level on NAEP Grade 4 Math	SPED	25%	–	27%	–	32%	–	26%	–	27%	7%	2%
23	Student Achievement NAEP, Grade 8 Reading	By 2014, 12% of students will perform at the Proficient level on NAEP Grade 8 Reading	SPED	5%	–	7%	–	12%	–	6%	–	7%	7%	2%
24	Student Achievement NAEP, Grade 8 Math	By 2014, 18% of students will perform at the Proficient level on NAEP Grade 8 Math	SPED	11%	–	13%	–	18%	–	12%	–	13%	7%	2%
25	Student Achievement NAEP, Grade 4 Reading	By 2014, 18% of students will perform at the Proficient level on NAEP Grade 4 Reading	ELL	8%	–	13%	–	18%	–	9%	–	10%	10%	2%
26	Student Achievement NAEP, Grade 4 Math	By 2014, 36% of students will perform at the Proficient level on NAEP Grade 4 Math	ELL	26%	–	31%	–	36%	–	27%	–	28%	10%	2%

27	Student Achievement NAEP, Grade 8 Reading	By 2014, 14% of students will perform at the Proficient level on NAEP Grade 8 Reading	ELL	4%	–	8%	–	14%	–	5%	–	6%	10%	2%
28	Student Achievement NAEP, Grade 8 Math	By 2014, 27% of students will perform at the Proficient level on NAEP Grade 8 Math	ELL	17%	–	21%	–	27%	–	18%	–	19%	10%	2%
29	Student Achievement ISTEP+, ELA	By 2014, 95% of students will pass the English/language arts section of ISTEP+ and End-of-Course Assessments	All	70%	80%	95%	95%	95%	75%	90%	90%	90%	25%	20%
30	Student Achievement ISTEP+, Math	By 2014, 96% of students will pass the mathematics section of ISTEP+ and End-of-Course Assessments	All	71%	80%	96%	96%	96%	75%	90%	90%	90%	25%	19%
31	Student Achievement ISTEP+, ELA	By 2014, 95% of students will pass the English/language arts section of ISTEP+ and End-of-Course Assessments	White	75%	85%	94%	94%	95%	80%	90%	90%	90%	20%	15%

32	Student Achievement ISTEP+, Math	By 2014, 96% of students will pass the mathematics section of ISTEP+ and End-of-Course Assessments	White	76%	85%	95%	95%	96%	80%	90%	90%	90%	20%	14%
33	Student Achievement ISTEP+, ELA	By 2014, 78% of students will pass the English/language arts section of ISTEP+ and End-of-Course Assessments	Black	48%	53%	65%	70%	78%	48%	50%	55%	64%	30%	16%
34	Student Achievement ISTEP+, Math	By 2014, 77% of students will pass the mathematics section of ISTEP+ and End-of-Course Assessments	Black	47%	52%	65%	70%	77%	47%	50%	55%	62%	30%	15%
35	Student Achievement ISTEP+, ELA	By 2014, 85% of students will pass the English/language arts section of ISTEP+ and End-of-Course Assessments	Hispanic	55%	60%	70%	75%	85%	57%	60%	65%	71%	30%	16%

36	Student Achievement ISTEP+, Math	By 2014, 90% of students will pass the mathematics section of ISTEP+ and End-of-Course Assessments	Hispanic	60%	65%	75%	80%	90%	61%	65%	70%	75%	30%	15%
37	Student Achievement ISTEP+, ELA	By 2014, 86% of students will pass the English/language arts section of ISTEP+ and End-of-Course Assessments	Economically disadvantaged	56%	60%	70%	78%	86%	58%	60%	65%	77%	30%	21%
38	Student Achievement ISTEP+, Math	By 2014, 88% of students will pass the mathematics section of ISTEP+ and End-of-Course Assessments	Economically disadvantaged	58%	62%	72%	80%	88%	60%	62%	67%	78%	30%	20%
39	Student Achievement ISTEP+, ELA	By 2014, 49% of students will pass the English/language arts section of ISTEP+ and End-of-Course Assessments	SPED	34%	40%	44%	46%	49%	35%	37%	38%	39%	15%	5%
40	Student Achievement ISTEP+, Math	By 2014, 58% of students will pass the mathematics	SPED	43%	49%	53%	55%	58%	44%	46%	47%	48%	15%	5%

		section of ISTEP+ and End-of-Course Assessments												
41	Student Achievement ISTEP+, ELA	By 2014, 69% of students will pass the English/language arts section of ISTEP+ and End-of-Course Assessments	ELL	39%	47%	54%	64%	69%	40%	45%	55%	60%	30%	21%
42	Student Achievement ISTEP+, Math	By 2014, 80% of students will pass the mathematics section of ISTEP+ and End-of-Course Assessments	ELL	50%	57%	65%	75%	80%	51%	55%	65%	70%	30%	20%
43	Achievement Gap NAEP, Grade 4 Reading	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 4 Reading will not exceed 10 percentage points	Econ dis'd - All	14%	–	12%	–	10%	–	13%	–	13%	-4%	-1%

44	Achievement Gap NAEP, Grade 4 Math	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 4 Math will not exceed 12 percentage points	Econ dis'd - All	16%		14%		12%		15%		15%	-4%	-1%
45	Achievement Gap NAEP, Grade 8 Reading	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 8 Reading will not exceed 11 percentage points	Econ dis'd - All	15%	–	13%	–	11%	–	14%	–	14%	-4%	-1%
46	Achievement Gap NAEP, Grade 8 Math	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 8 Math will not exceed 11 percentage points	Econ dis'd - All	15%		13%		11%		14%		14%	-4%	-1%

47	Achievement Gap NAEP, Grade 4 Reading	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 4 Reading will not exceed 21 percentage points	ELL - All	25%	–	23%	–	21%	–	24%	–	24%	-4%	-1%
48	Achievement Gap NAEP, Grade 4 Math	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 4 Math will not exceed 16 percentage points	ELL - All	20%	–	18%	–	16%	–	19%	–	19%	-4%	-1%
49	Achievement Gap NAEP, Grade 8 Reading	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 8 Reading will not exceed 23 percentage points	ELL - All	27%	–	26%	–	23%	–	26%	–	26%	-4%	-1%

50	Achievement Gap NAEP, Grade 8 Math	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 8 Math will not exceed 14 percentage points	ELL - All	18%	–	17%	–	14%	–	17%	–	17%	-4%	-1%
51	Achievement Gap NAEP, Grade 4 Reading	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 4 Reading will not exceed 15 percentage points	Black - White	25%	–	22%	–	15%	–	24%	–	24%	-10%	-1%
52	Achievement Gap NAEP, Grade 4 Math	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 4 Math will not exceed 28 percentage points	Black - White	38%	–	35%	–	28%	–	37%	–	37%	-10%	-1%

53	Achievement Gap NAEP, Grade 8 Reading	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 8 Reading will not exceed 15 percentage points	Black – White	25%	–	22%	–	15%	–	24%	–	24%	-10%	-1%
54	Achievement Gap NAEP, Grade 8 Math	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 8 Math will not exceed 21 percentage points	Black - White	31%	–	28%	–	21%	–	30%	–	30%	-10%	-1%
55	Achievement Gap NAEP, Grade 4 Reading	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 4 Reading will not exceed 10 percentage points	Hispanic - White	20%	–	17%	–	10%	–	19%	–	19%	-10%	-1%

56	Achievement Gap NAEP, Grade 4 Math	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 4 Math will not exceed 16 percentage points	Hispanic - White	26%	–	23%	–	16%	–	25%	–	25%	-10%	-1%
57	Achievement Gap NAEP, Grade 8 Reading	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 8 Reading will not exceed 4 percentage points	Hispanic - White	14%	–	11%	–	4%	–	13%	–	13%	-10%	-1%
58	Achievement Gap NAEP, Grade 8 Math	By 2014, the difference in % of students performing at or above the Proficient level on NAEP Grade 8 Math will not exceed 10 percentage points	Hispanic - White	20%	–	17%	–	10%	–	19%	–	19%	-10%	-1%

59	Achievement Gap ISTEP+, ELA	By 2014, the difference in % of students performing at or above the Proficient level on ISTEP+ English/language arts will not exceed 9 percentage points	Econ dis'd - All	14%	20%	25%	17%	9%	17%	30%	25%	13%	-5%	-1%
60	Achievement Gap ISTEP+, Math	By 2014, the difference in % of students performing at or above the Proficient level on ISTEP+ Math will not exceed 8 percentage points	Econ dis'd - All	13%	18%	24%	16%	8%	15%	28%	23%	12%	-5%	-1%
61	Achievement Gap ISTEP+, ELA	By 2014, the difference in % of students performing at or above the Proficient level on ISTEP+ English/language arts will not exceed 26 percentage points	ELL - All	31%	33%	41%	31%	26%	35%	45%	35%	30%	-5%	-1%

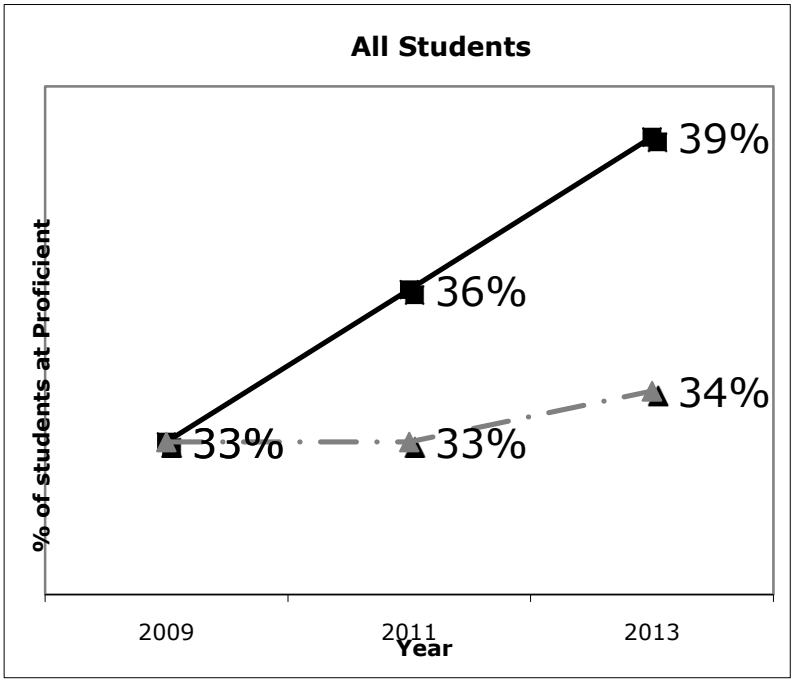
62	Achievement Gap ISTEP+, Math	By 2014, the difference in % of students performing at or above the Proficient level on ISTEP+ Math will not exceed 16 percentage points	ELL - All	21%	23%	31%	21%	16%	24%	35%	25%	20%	-5%	-1%
63	Achievement Gap ISTEP+, ELA	By 2014, the difference in % of students performing at or above the Proficient level on ISTEP+ English/language arts will not exceed 17 percentage points	Black - White	27%	32%	29%	24%	17%	32%	40%	35%	26%	-10%	-1%
64	Achievement Gap ISTEP+, Math	By 2014, the difference in % of students performing at or above the Proficient level on ISTEP+ Math will not exceed 19 percentage points	Black - White	29%	33%	30%	25%	19%	33%	40%	35%	28%	-10%	-1%

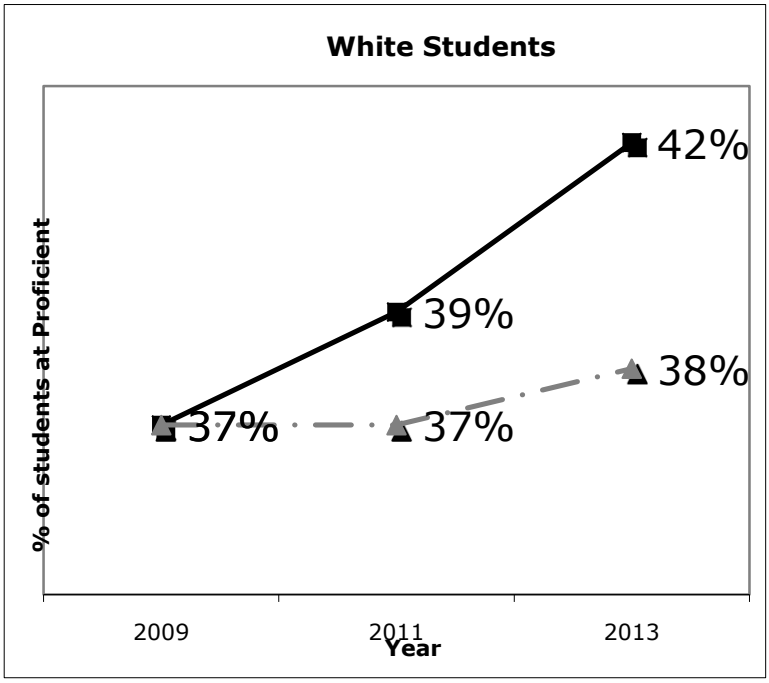
65	Achievement Gap ISTEP+, ELA	By 2014, the difference in % of students performing at or above the Proficient level on ISTEP+ English/language arts will not exceed 10 percentage points	Hispanic - White	20%	25%	24%	19%	10%	23%	30%	25%	19%	-10%	-1%
66	Achievement Gap ISTEP+, Math	By 2014, the difference in % of students performing at or above the Proficient level on ISTEP+ Math will not exceed 6 percentage points	Hispanic - White	16%	20%	20%	15%	6%	19%	25%	20%	15%	-10%	-1%
67	HS Graduation	By 2014, 90% of students will graduate from high school	All	77%	79%	84%	90%	90%	79%	81%	84%	90%	13%	13%
68	HS Graduation	By 2014, 91% of students will graduate from high school	White	80%	82%	87%	91%	91%	82%	84%	87%	91%	11%	11%
69	HS Graduation	By 2014, 87% of students will graduate from high school	Black	57%	60%	79%	87%	87%	60%	65%	79%	87%	30%	30%

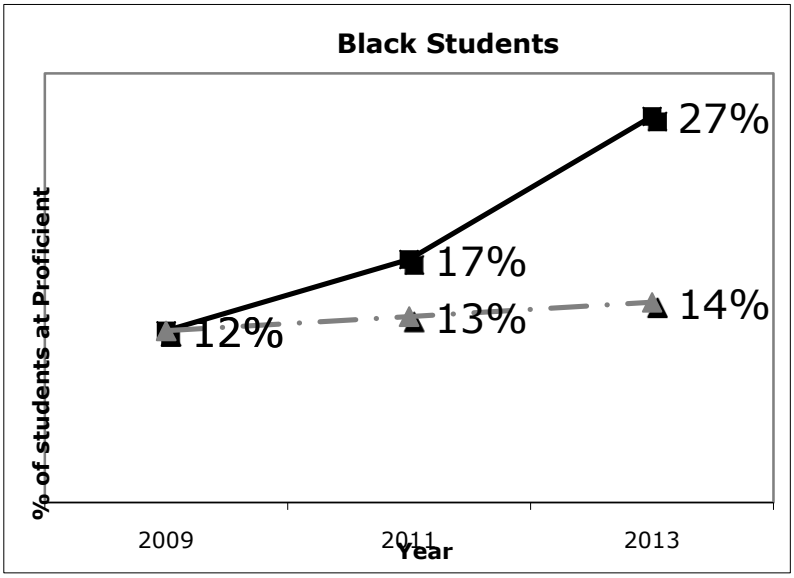
70	HS Graduation	By 2014, 89% of students will graduate from high school	Hispanic	64%	67%	85%	89%	89%	67%	72%	85%	89%	25%	25%
71	HS Graduation	By 2014, 88% of students will graduate from high school	Economically disadvantaged	59%	62%	81%	88%	88%	62%	67%	81%	88%	29%	29%
72	HS Graduation	By 2014, 70% of students will graduate from high school	SPED	53%	55%	64%	70%	70%	55%	58%	64%	70%	17%	17%
73	HS Graduation	By 2014, 88% of students will graduate from high school	ELL	59%	64%	83%	88%	88%	64%	69%	83%	88%	29%	29%
74	College Enrollment	By 2014, 77% of high school graduates will attend college	All	64%	68%	71%	77%	77%	66%	68%	71%	77%	13%	13%
75	College Enrollment	n/a	White	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available		
76	College Enrollment	n/a	Black	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available		
77	College Enrollment	n/a	Hispanic	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available		
78	College Enrollment	By 2014, 60% of high school graduates will attend college	Economically disadvantaged	31%	39%	53%	60%	60%	34%	39%	53%	60%	29%	29%
79	College Enrollment	n/a	SPED	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available		
80	College Enrollment	n/a	ELL	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available		

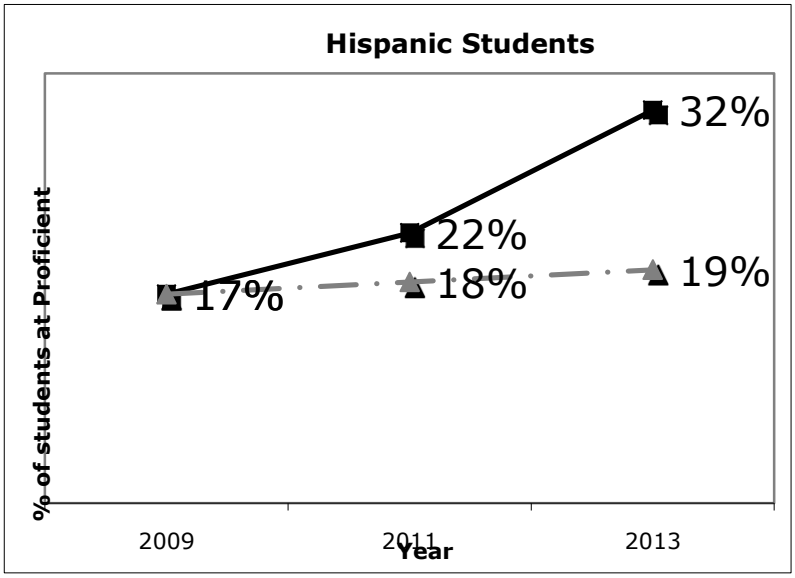
NAEP Goals- Grade 4 Reading

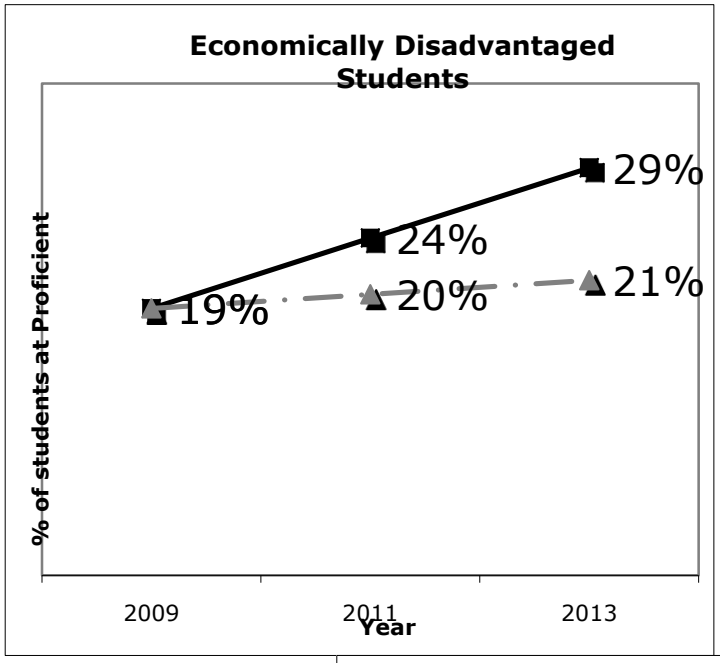
Key: **Solid line= With RttT Funding**
Dashed line= Without RttT Funding

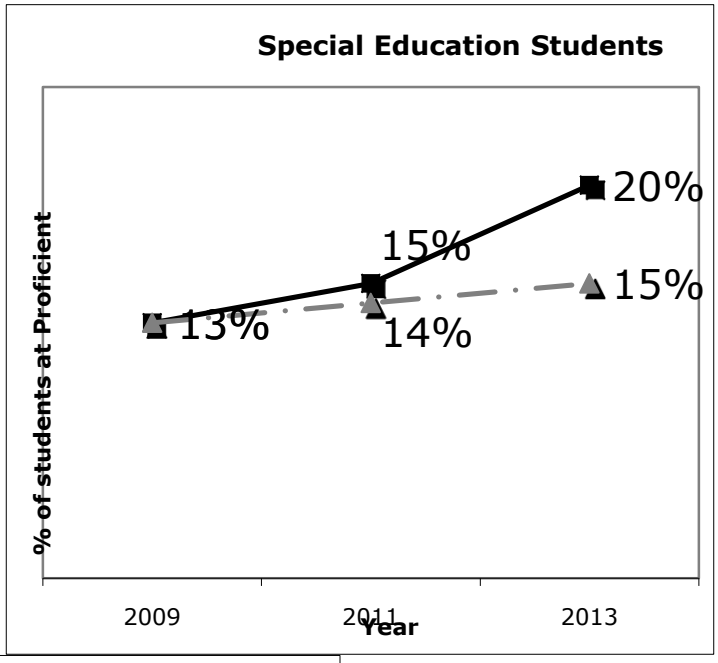


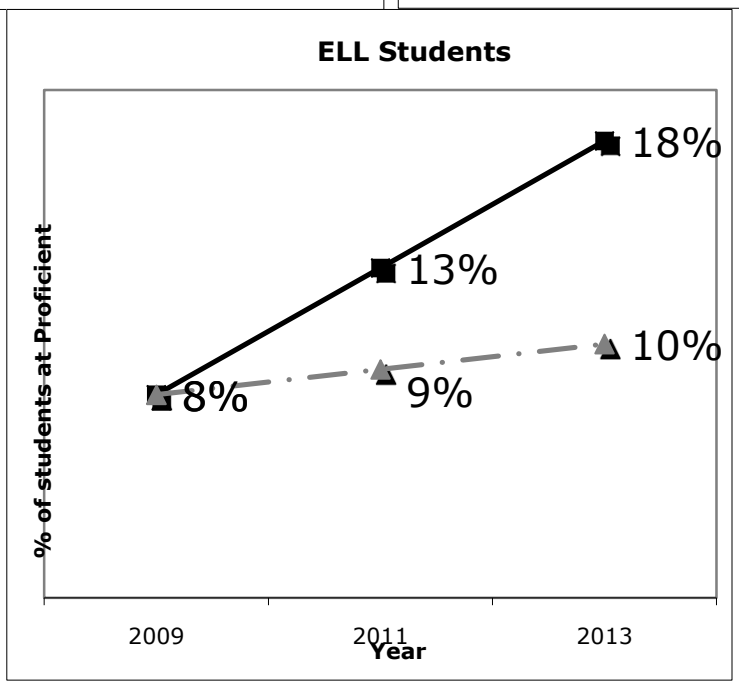






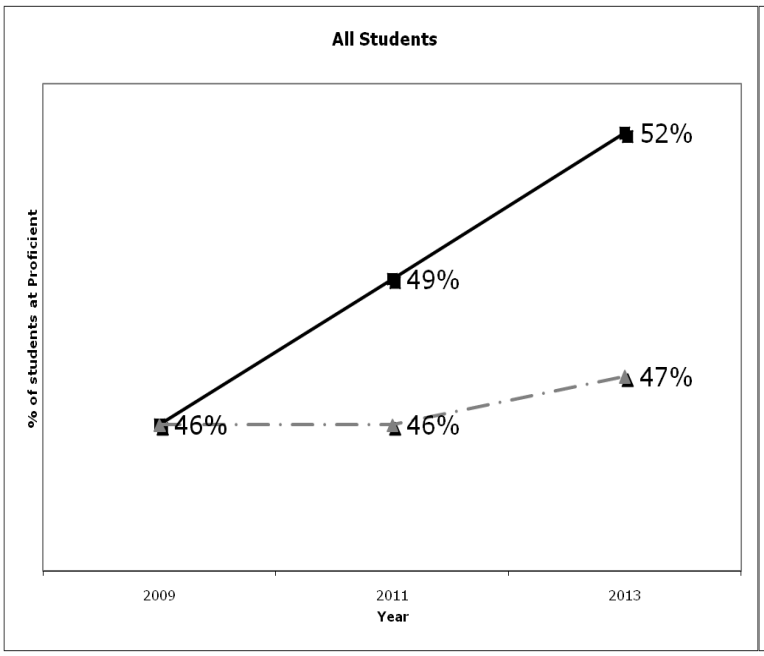

Economically Disadvantaged Students
% of students at Proficient
29%
24%
21%
20%
19%
2009
2011
2013
Year

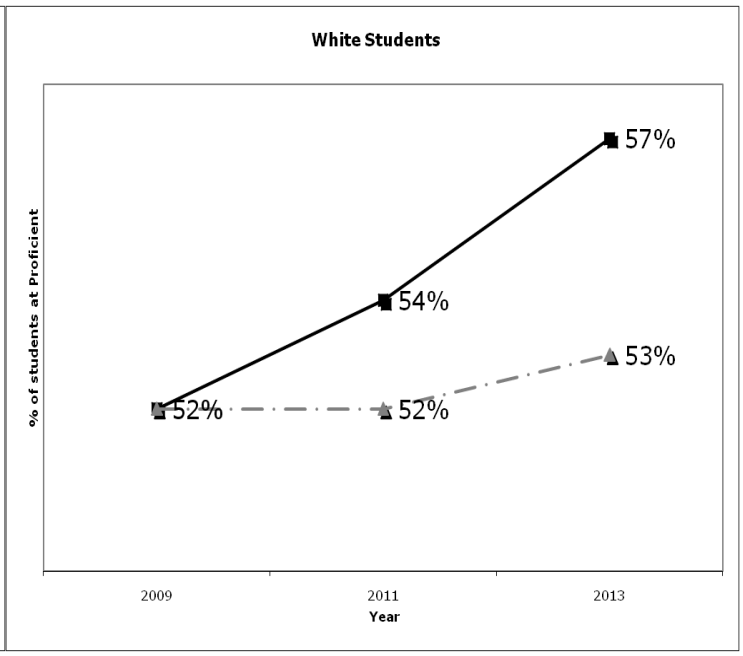

Special Education Students
% of students at Proficient
20%
15%
15%
14%
13%
2009
2011
2013
Year

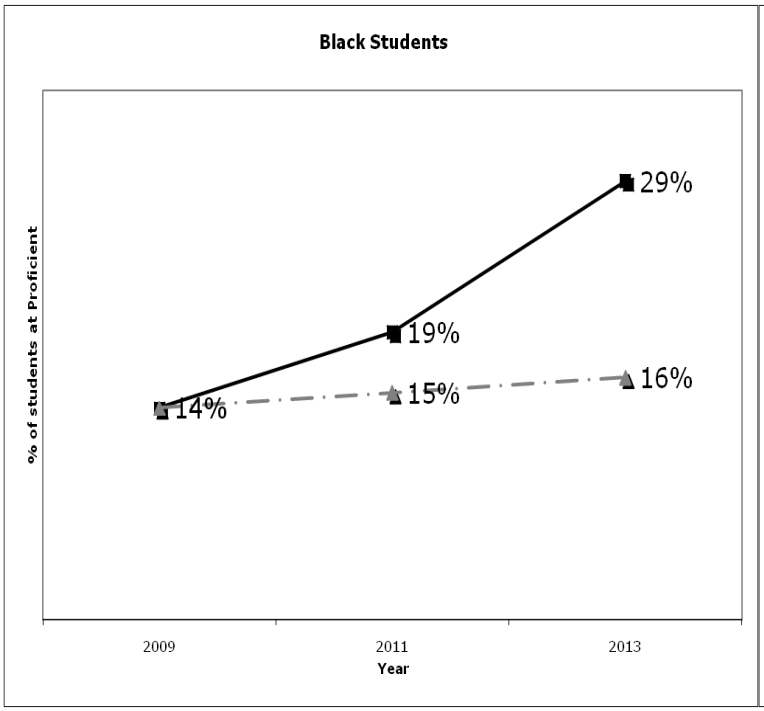

ELL Students
% of students at Proficient
18%
13%
10%
9%
8%
2009
2011
2013
Year

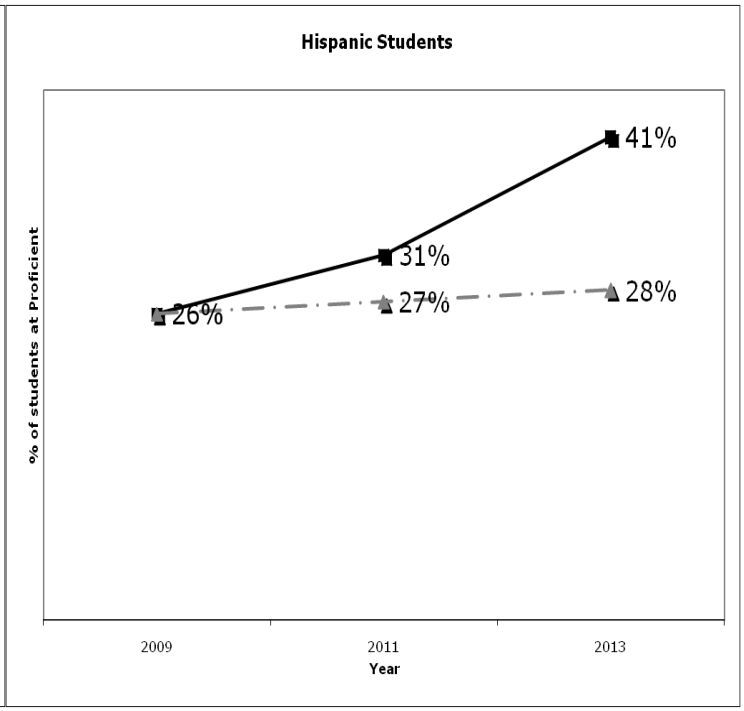
NAEP Goals- Grade 4 Math

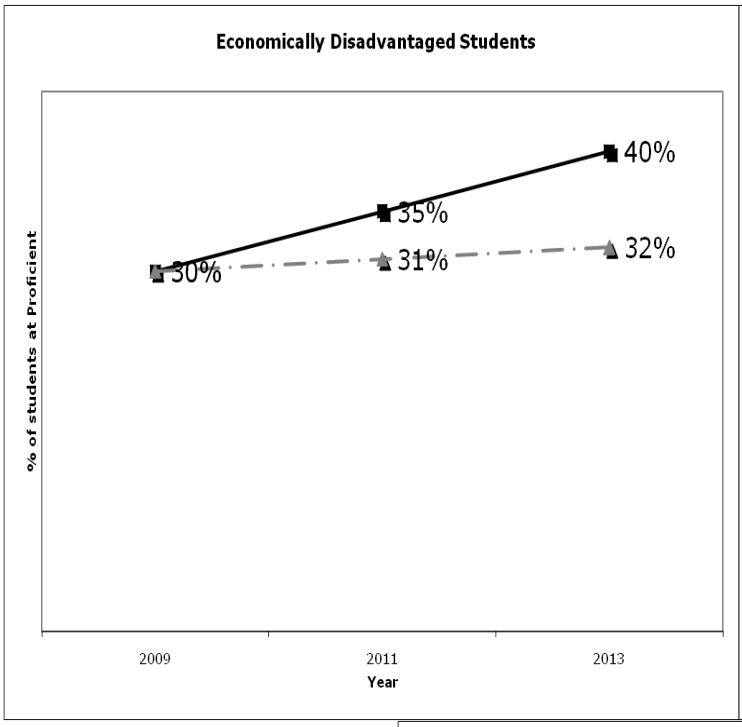
Key: Solid line= With RttT Funding
Dashed line= Without RttT Funding

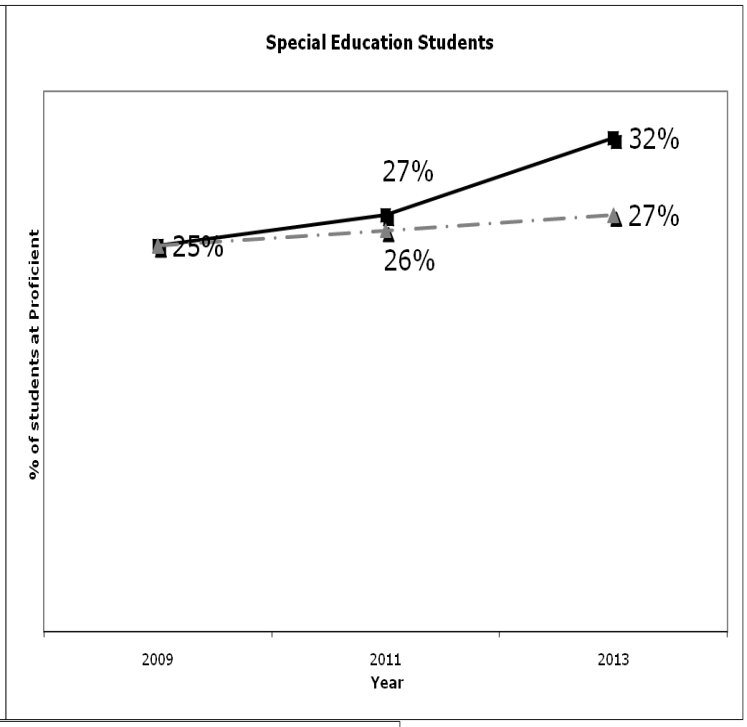


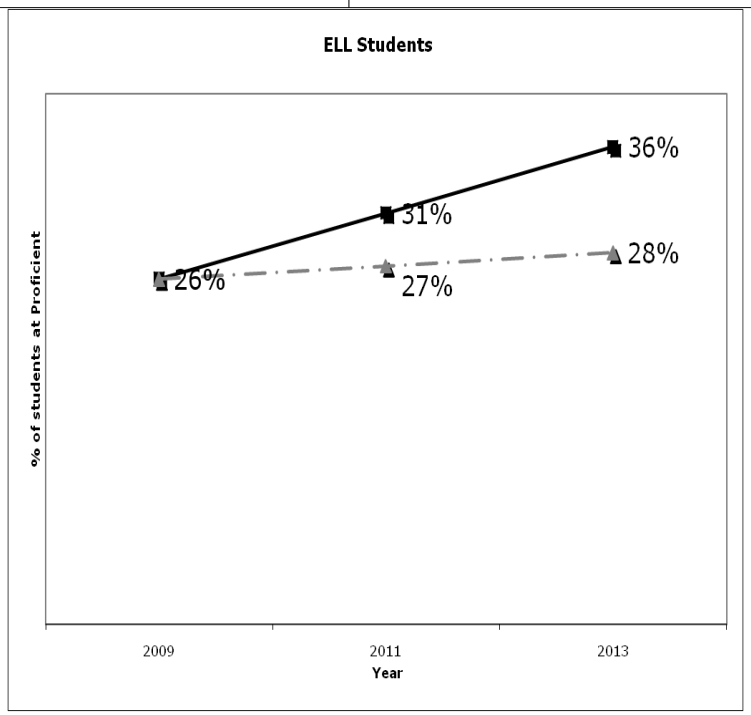






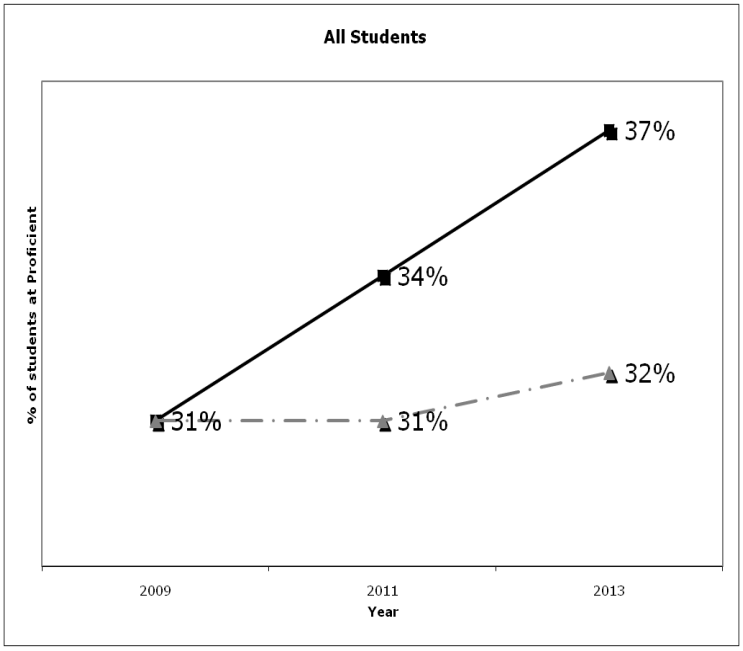

Economically Disadvantaged Students
% of students at Proficient
40%
35%
30%
31%
32%
2009
2011
2013
Year

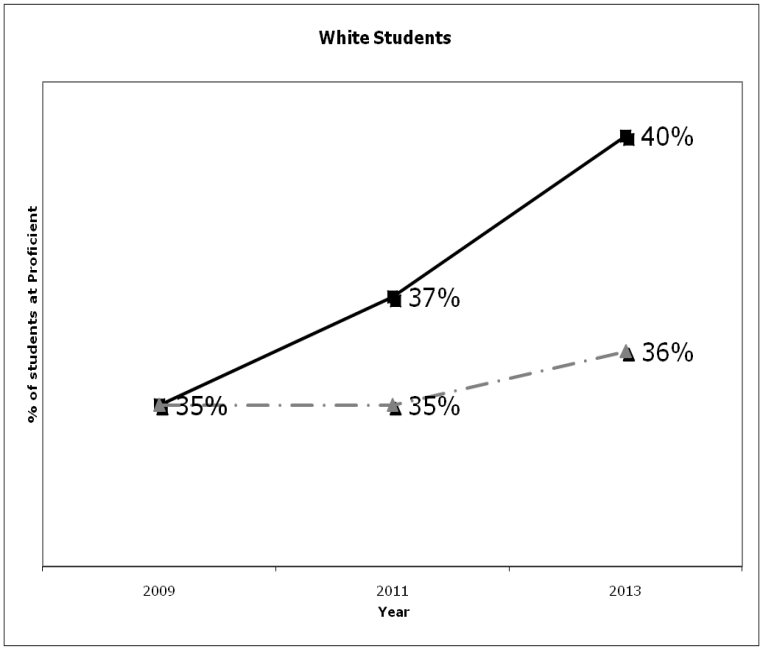

Special Education Students
% of students at Proficient
32%
27%
27%
25%
26%
2009
2011
2013
Year

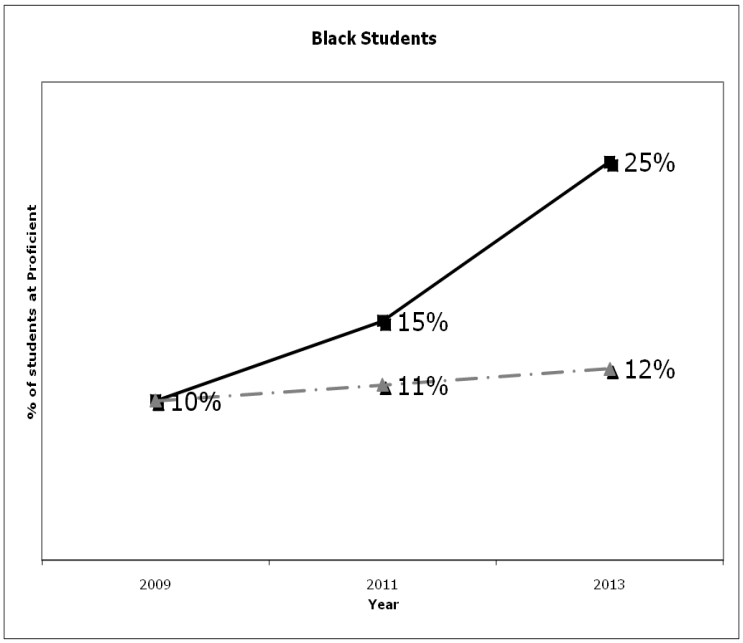

ELL Students
% of students at Proficient
36%
31%
28%
26%
27%
2009
2011
2013
Year

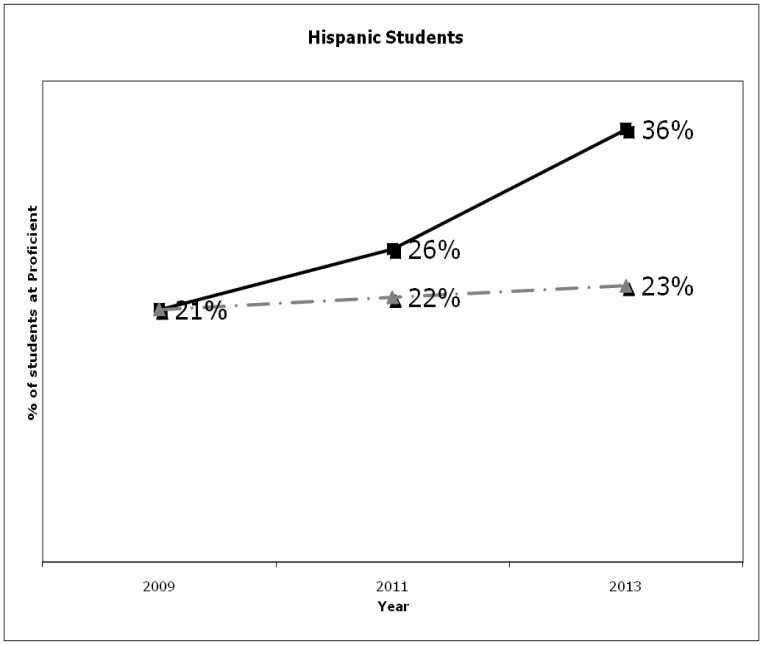
NAEP GOALS- Grade 9 Reading

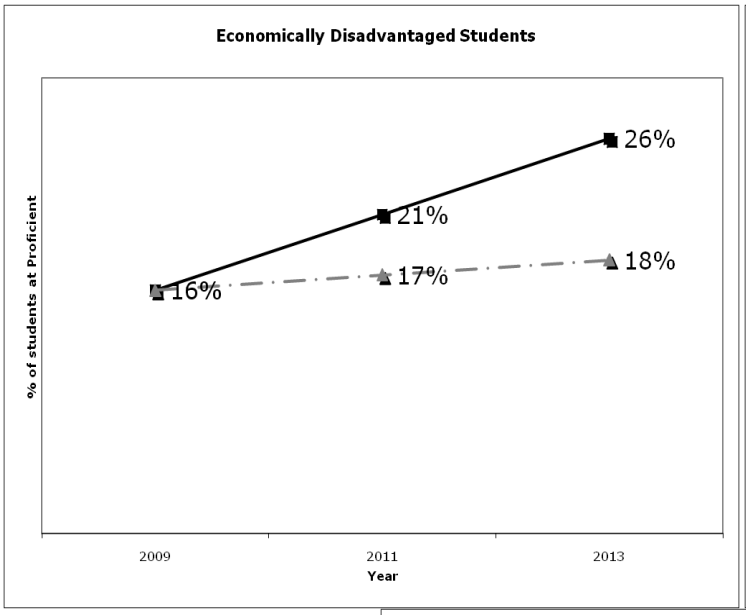
Key- Solid line= With RttT funding
Dashed line= Without RttT funding

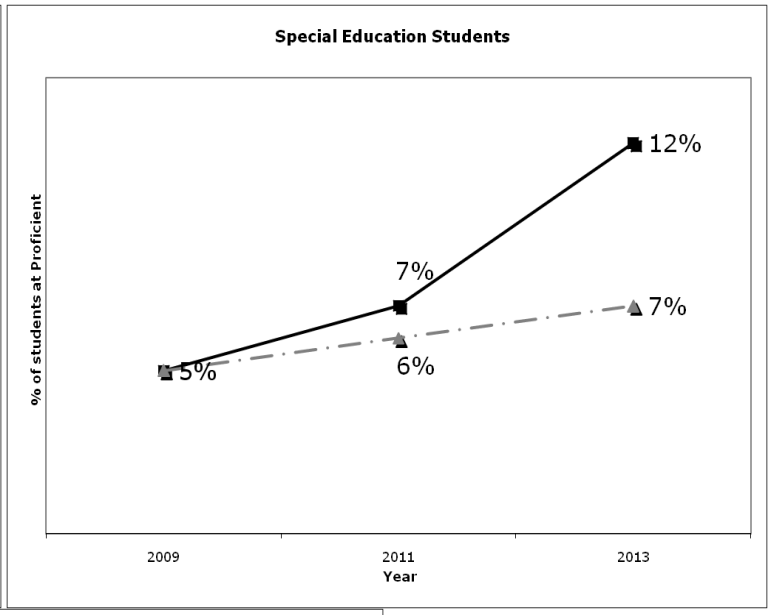


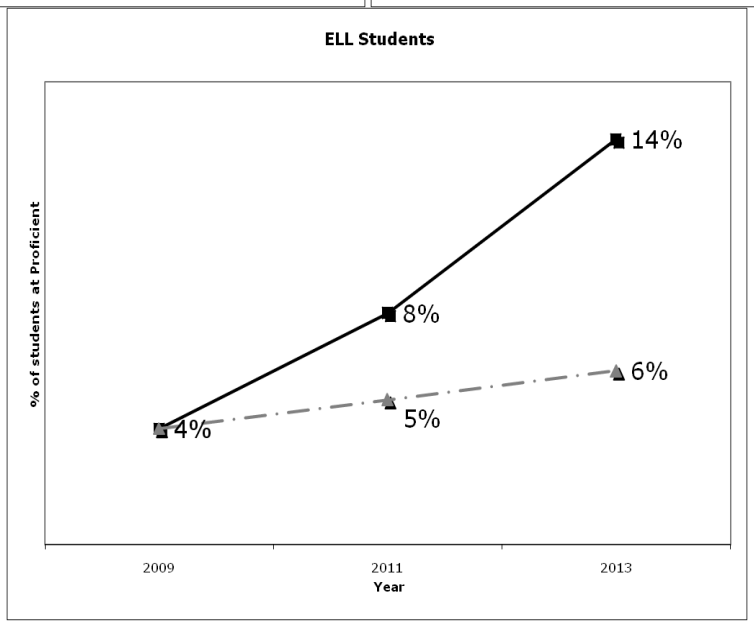






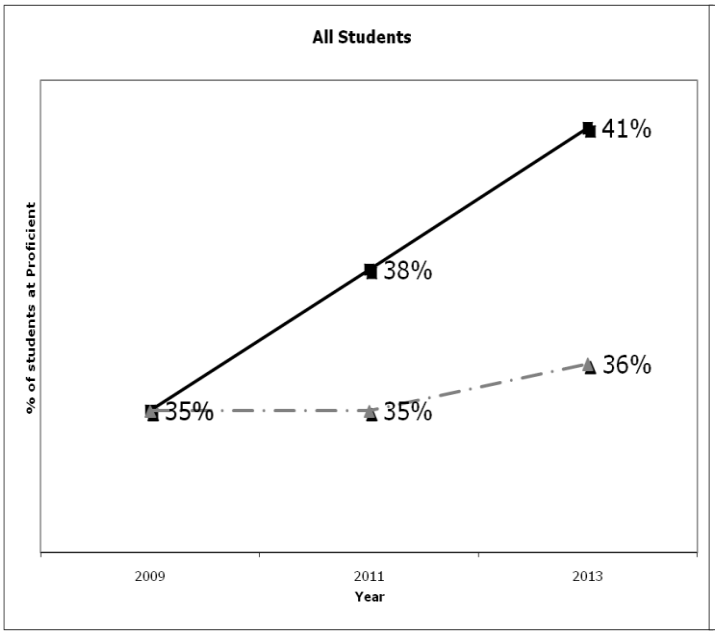

Economically Disadvantaged Students
% of students at Proficient
26%
21%
16%
17%
18%
2009
2011
2013
Year

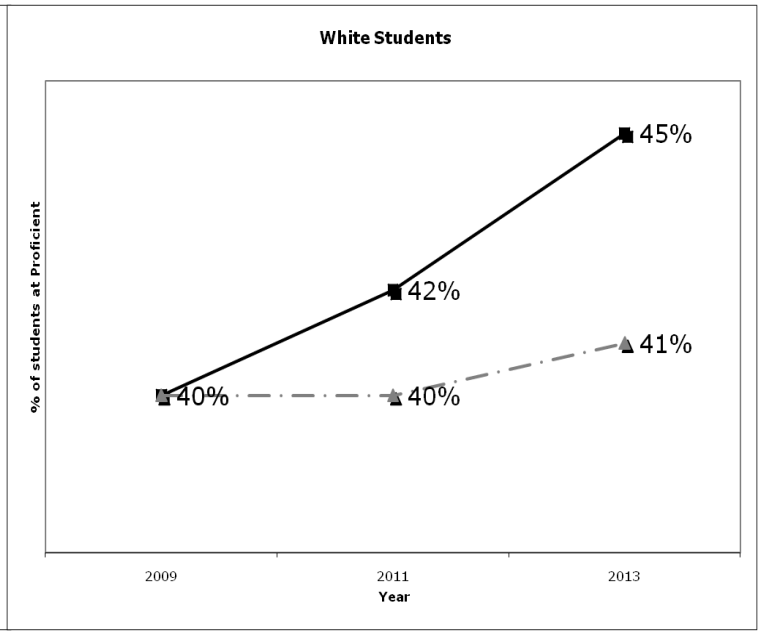

Special Education Students
% of students at Proficient
12%
7%
5%
6%
7%
2009
2011
2013
Year

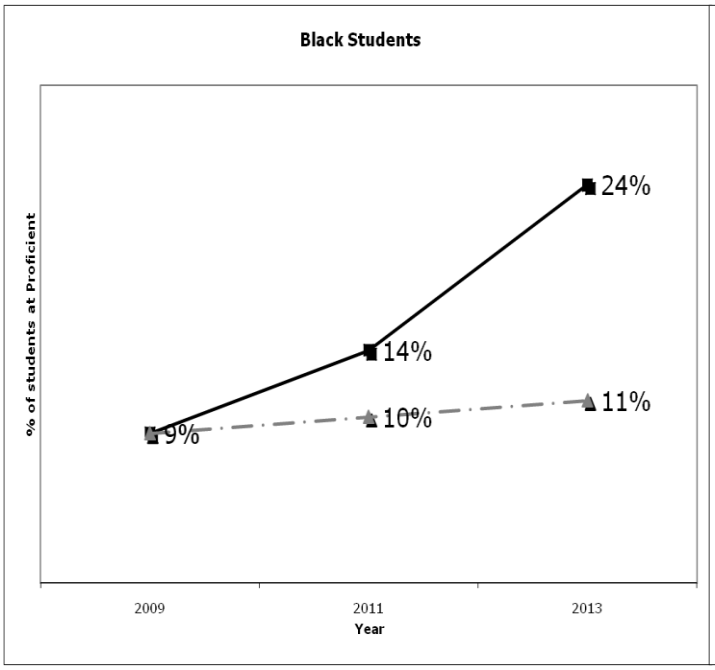

ELL Students
% of students at Proficient
14%
8%
4%
5%
6%
2009
2011
2013
Year

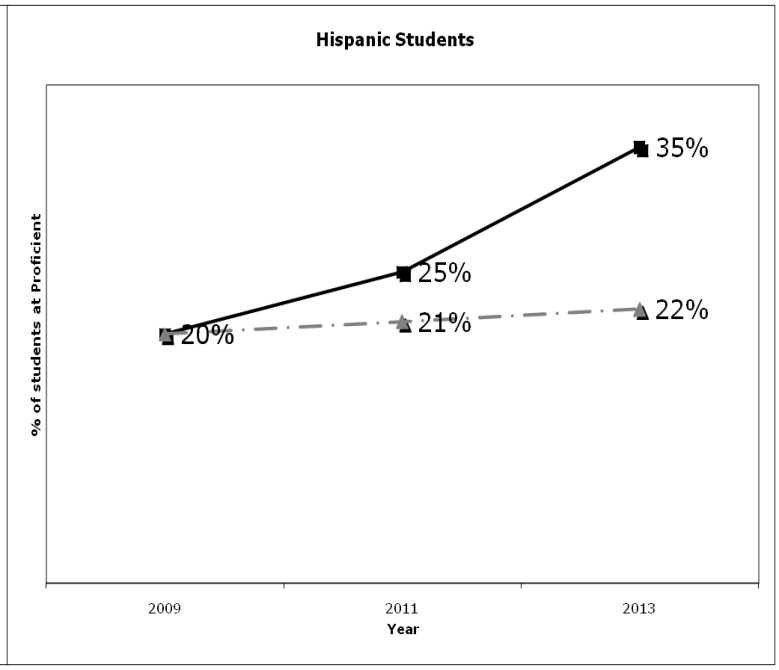
NAEP GOALS- Grade 8 Math

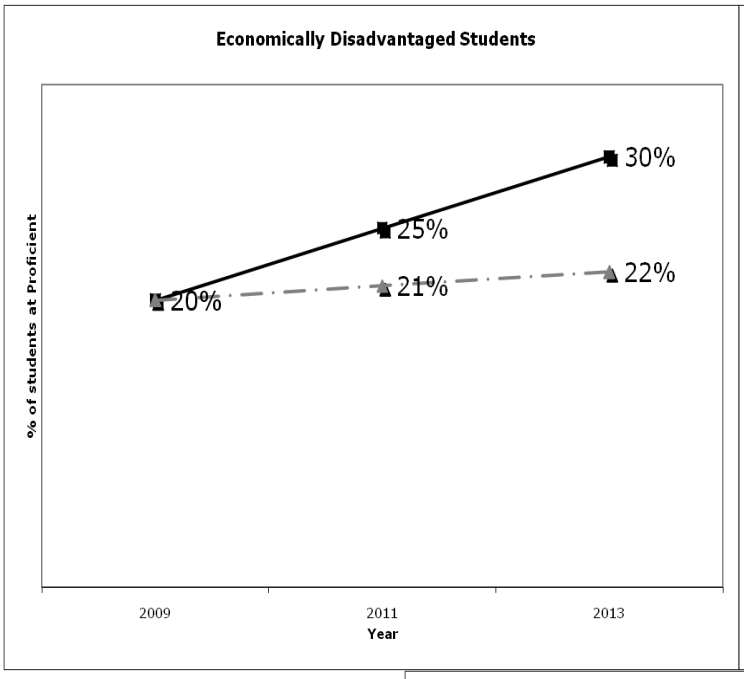
Key: Solid line= With RttT funding
Dashed line= Without RttT funding

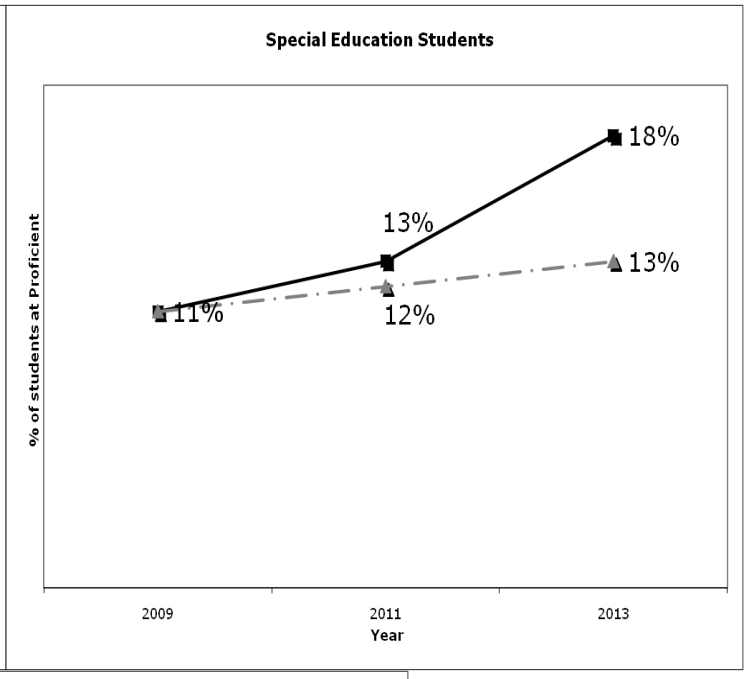


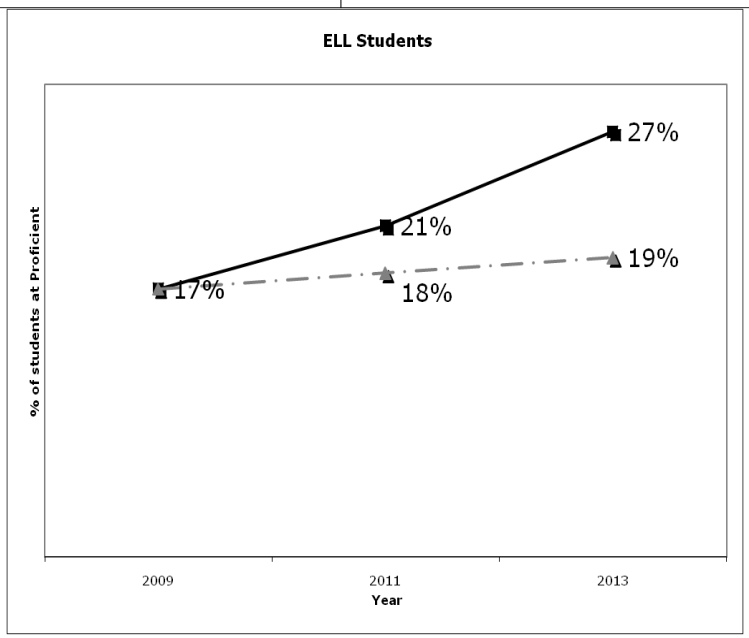






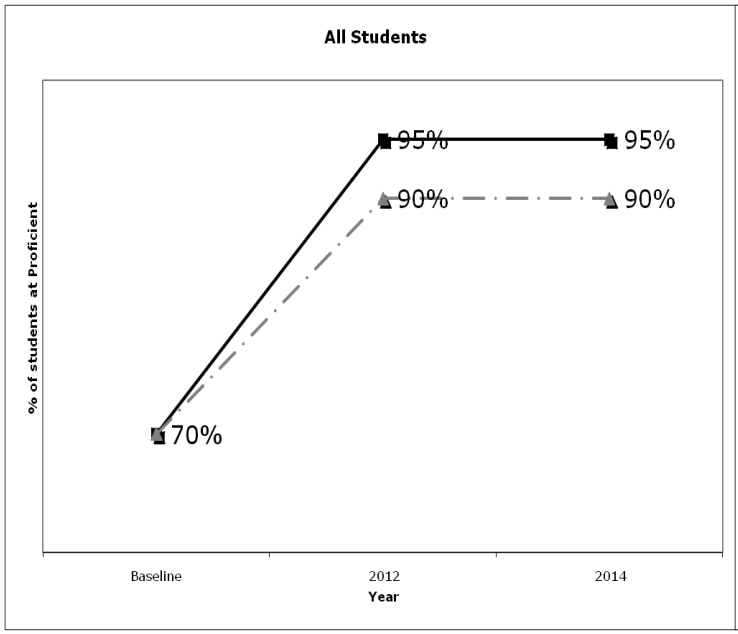

Economically Disadvantaged Students
% of students at Proficient
30%
25%
20%
21%
22%
2009
2011
2013
Year

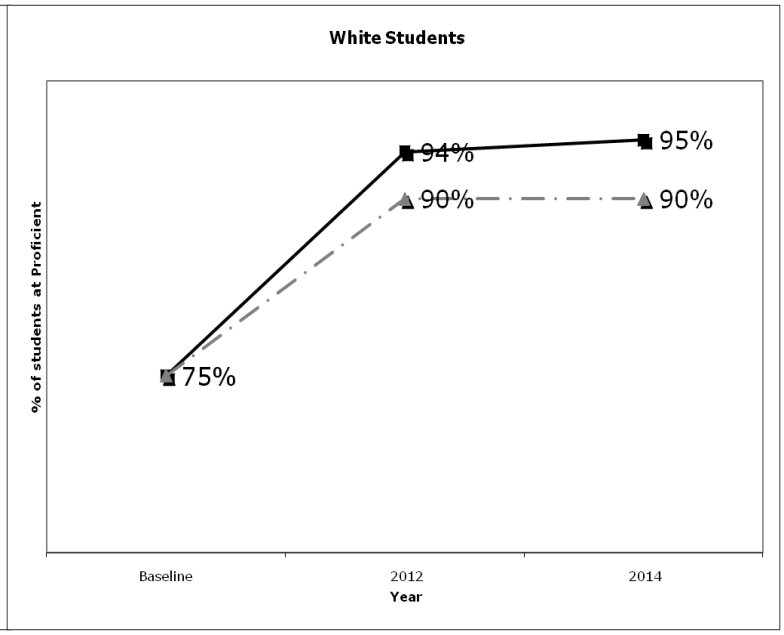

Special Education Students
% of students at Proficient
18%
13%
11%
12%
13%
2009
2011
2013
Year

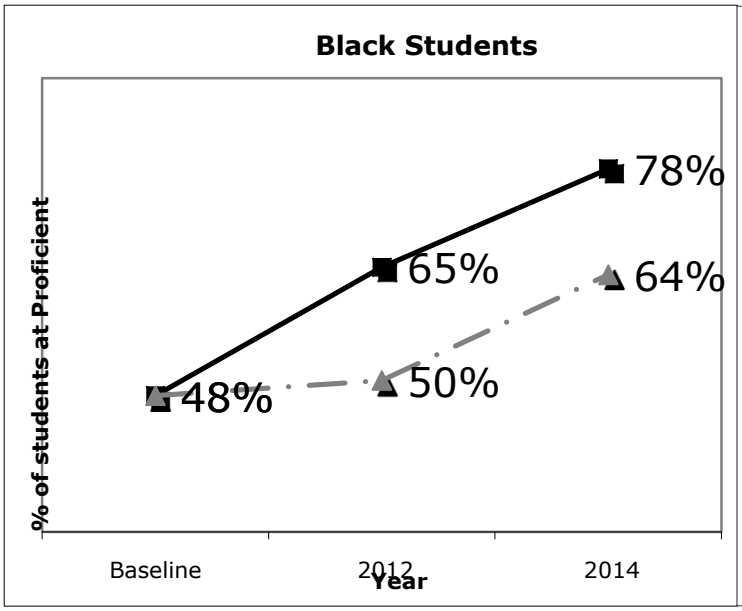

ELL Students
% of students at Proficient
27%
21%
17%
18%
19%
2009
2011
2013
Year

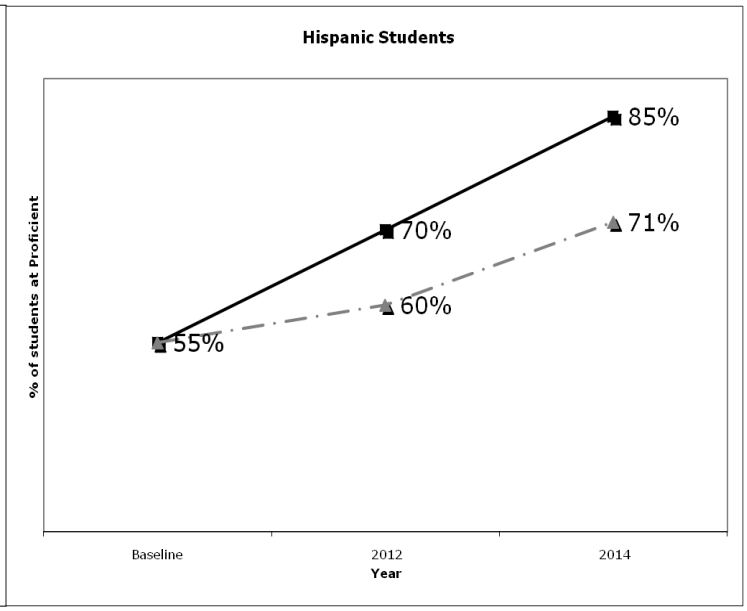
ISTEP+ GOALS- English/Language Arts

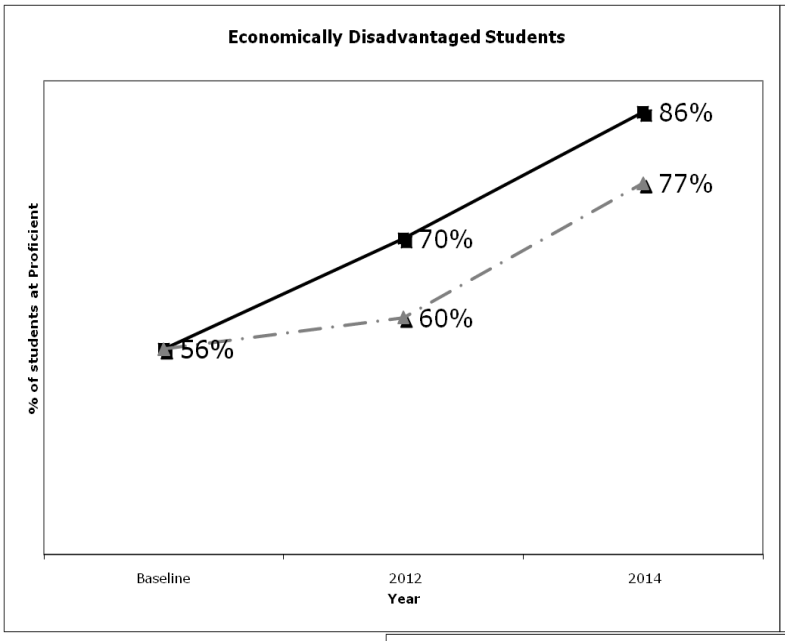
Key: Solid line= With RttT funding
Draft line= Without RttT Funding

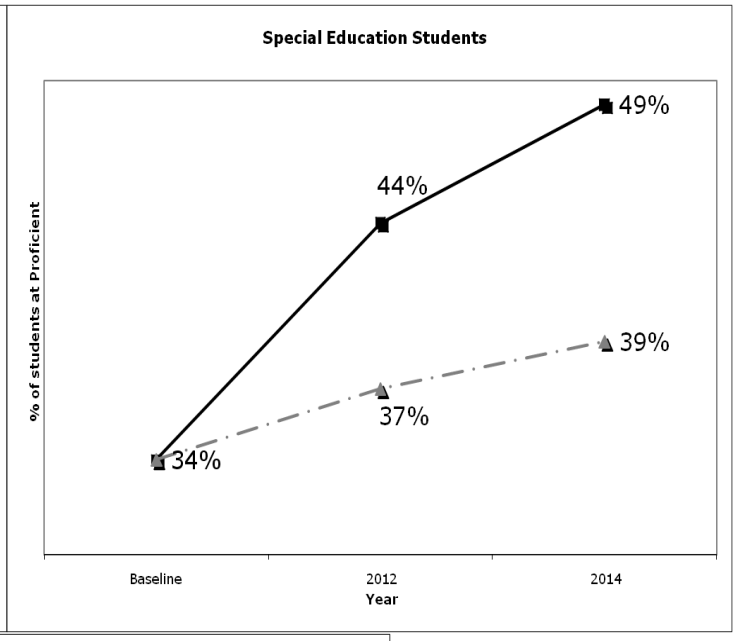


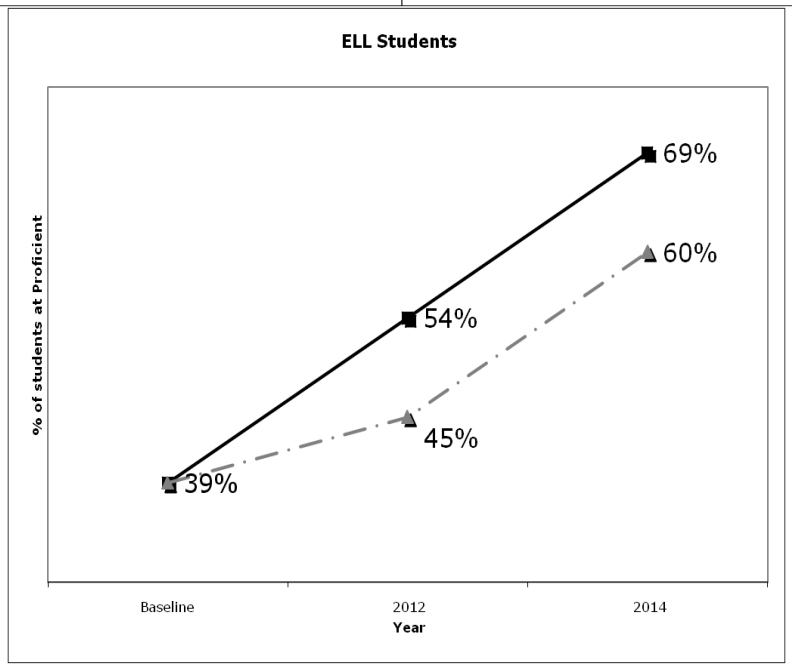






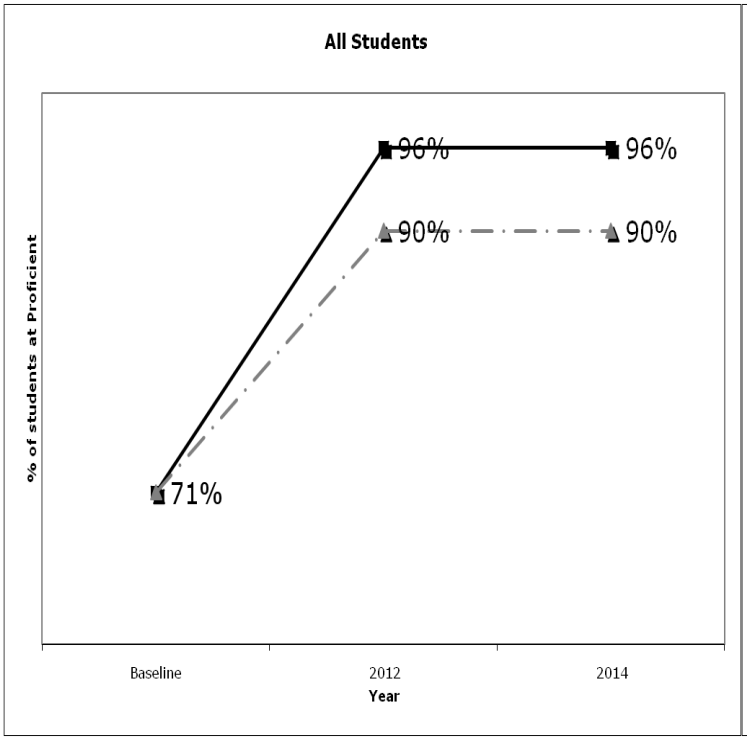

Economically Disadvantaged Students
% of students at Proficient
86%
77%
70%
60%
56%
Baseline
2012
2014
Year

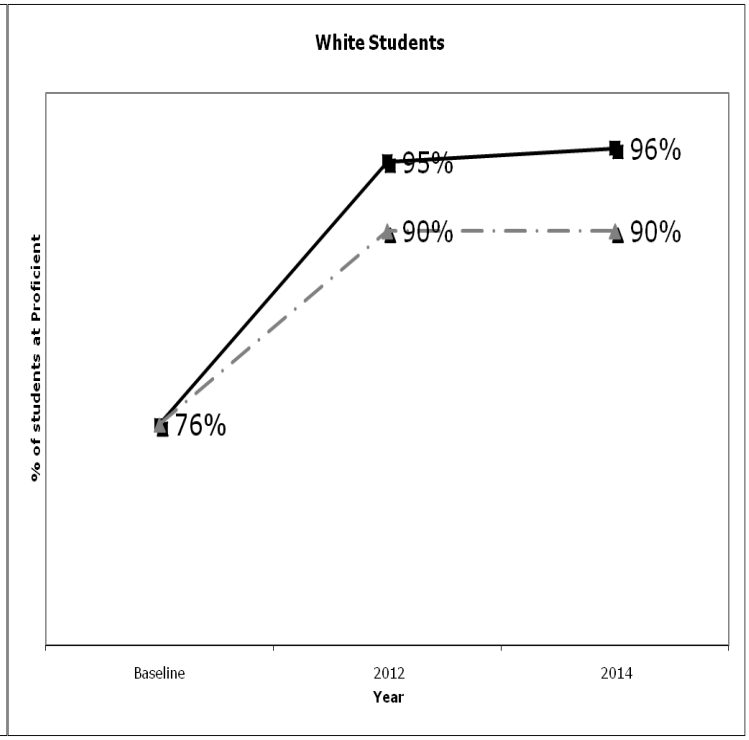

Special Education Students
% of students at Proficient
49%
44%
39%
37%
34%
Baseline
2012
2014
Year

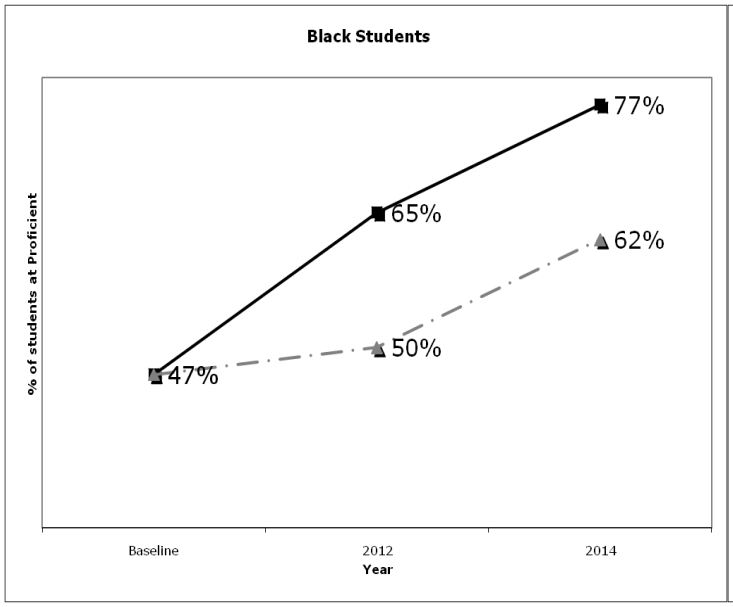

ELL Students
% of students at Proficient
69%
60%
54%
45%
39%
Baseline
2012
2014
Year

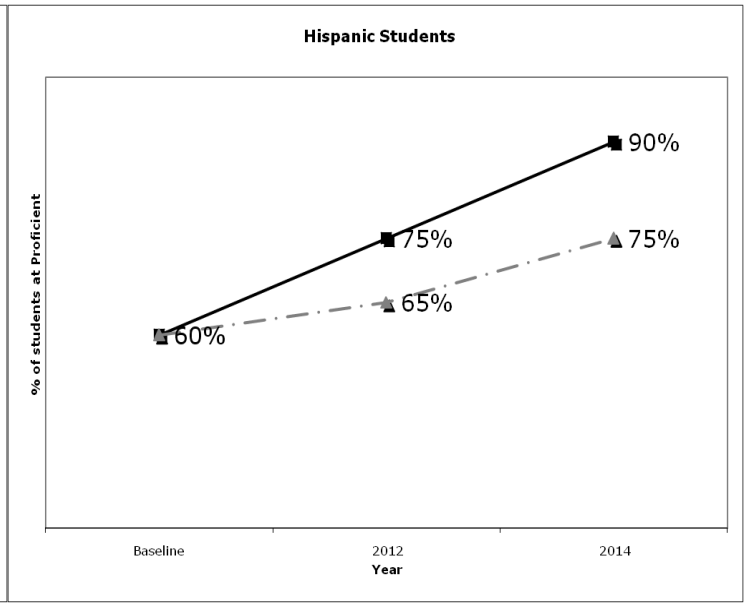
ISTEP+ GOALS- Mathematics

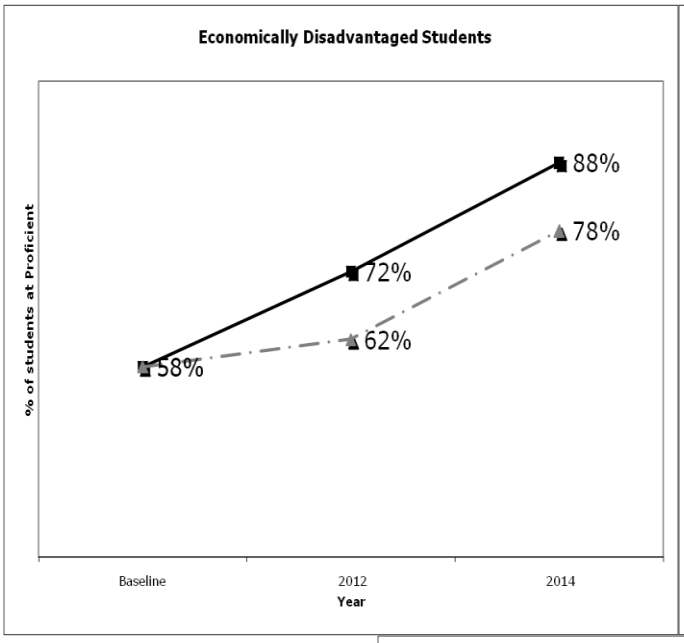
Key: Solid line= With RttT funding
Draft line= Without RttT Funding

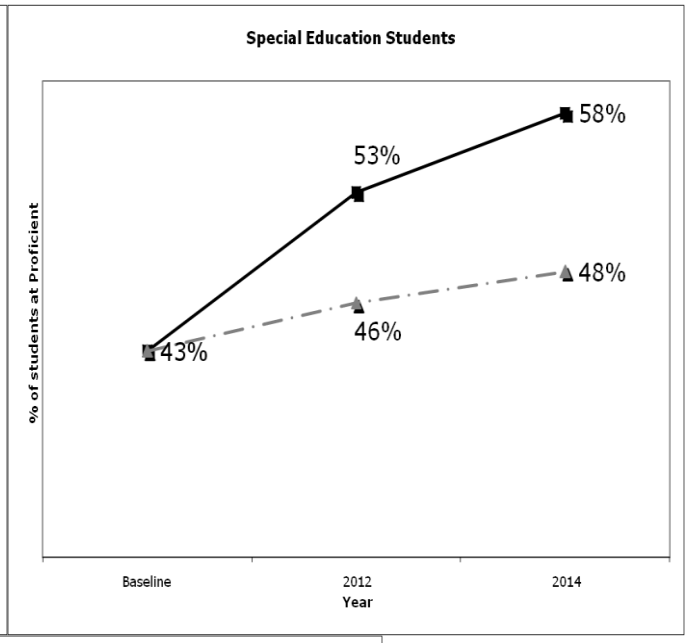


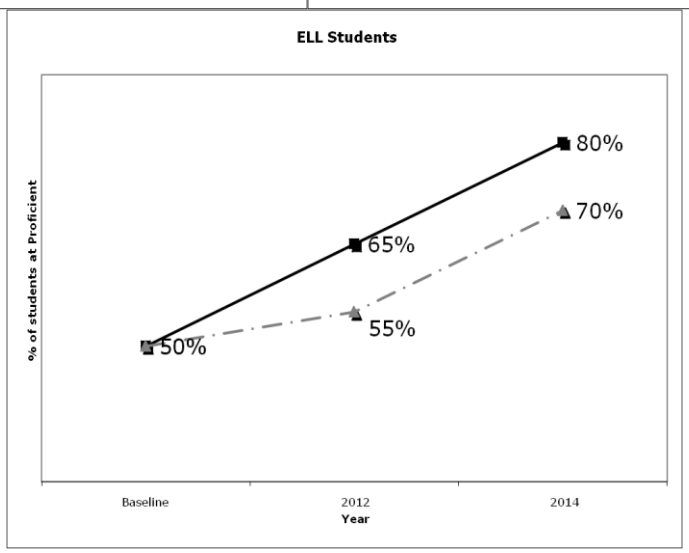






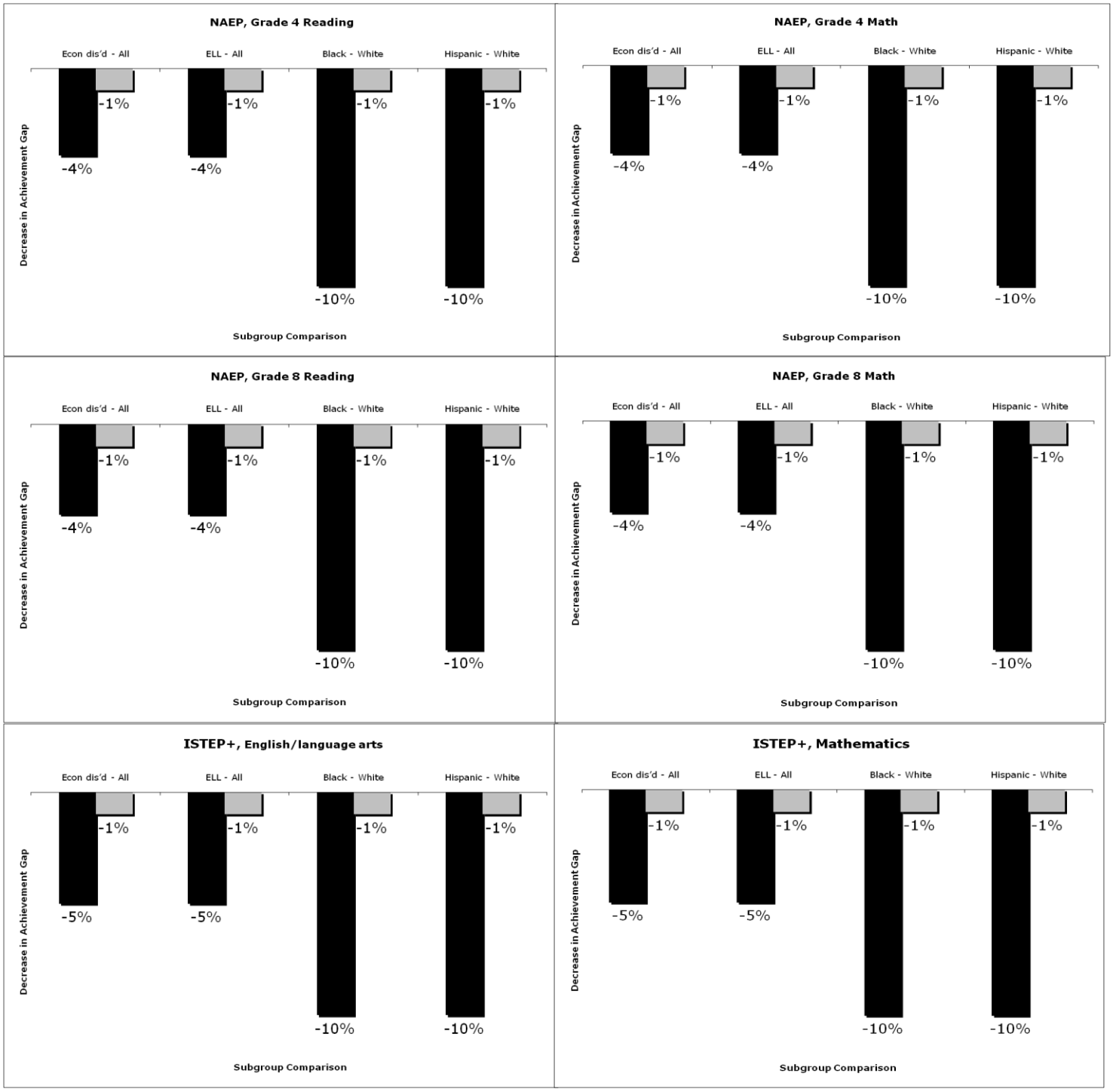

Economically Disadvantaged Students
% of students at Proficient
88%
78%
72%
62%
58%
Baseline
2012
2014
Year


Special Education Students
% of students at Proficient
58%
53%
48%
46%
43%
Baseline
2012
2014
Year

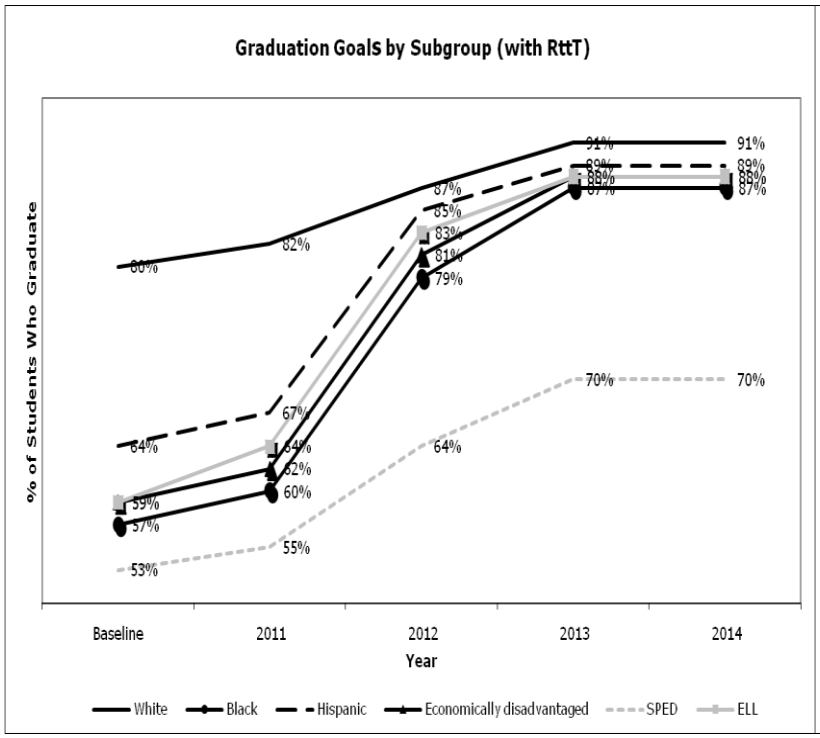

ELL Students
% of students at Proficient
80%
70%
65%
55%
50%
Baseline
2012
2014
Year

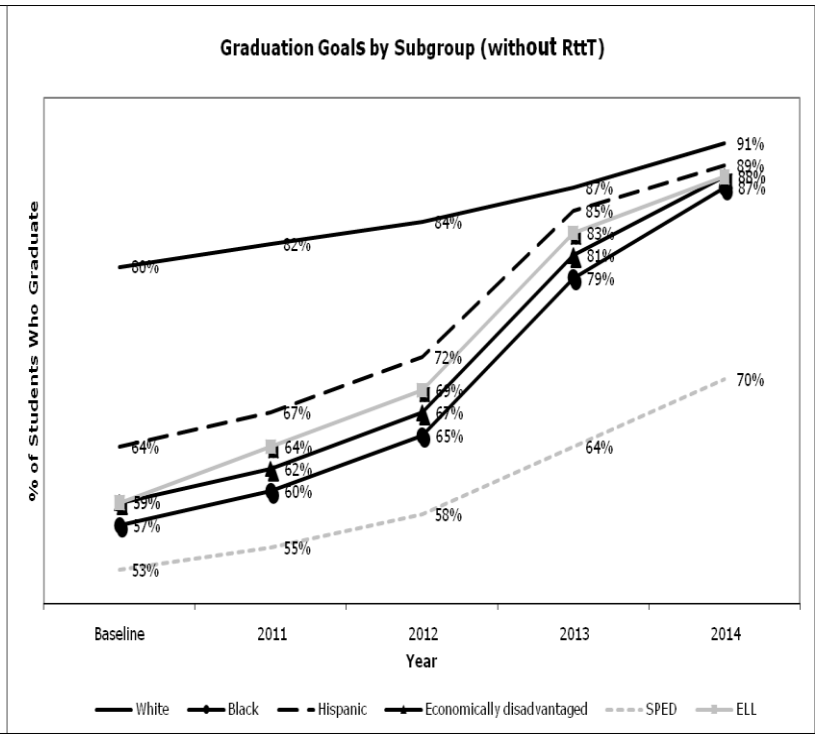
Decreasing the Achievement Gap (Baseline to 2014)

Key: **Black bar= With RttT funding**
Gray bar= Without RttT Funding

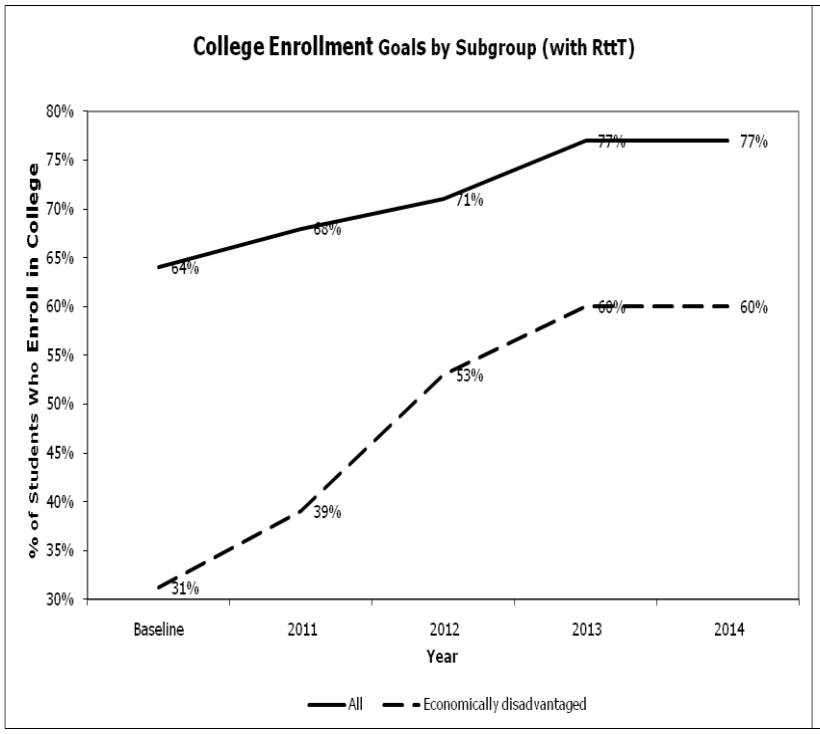


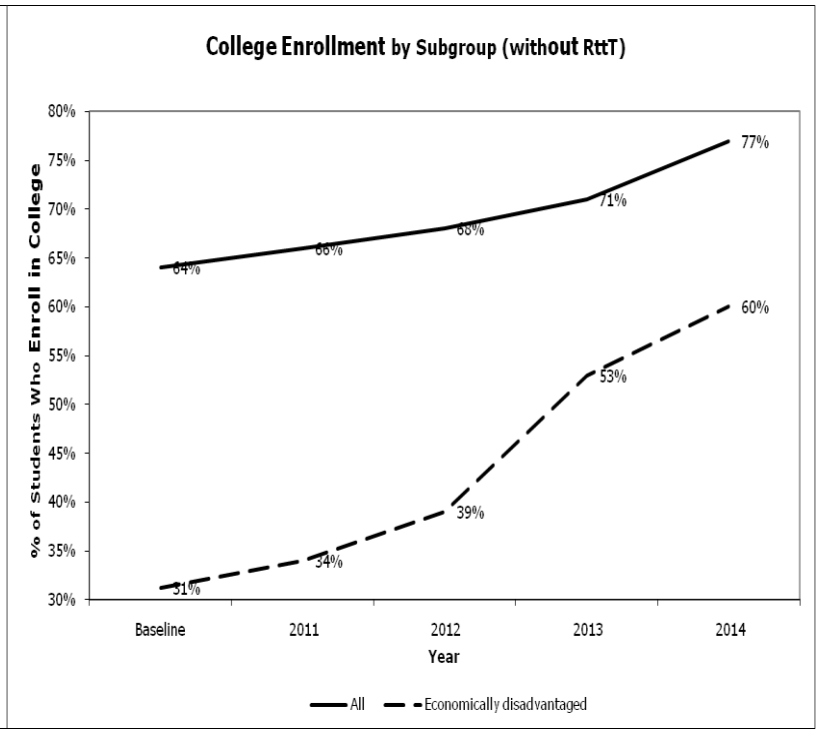
INCREASING HIGH SCHOOL GRADUATION RATES





INCREASING COLLEGE ENROLLMENT





A-5: IDOE's OVERALL TIMELINE

2009

October

- IDOE releases aggregate school level growth data to schools and LEAs (Phase one). (D)(2)(i)

December

- IDOE publicly releases school growth data. (D)(2)(i)

2010

January

- IDOE expands the dataset for data matching with higher education. (C)(1)

February

- IDOE issues an RFP for external providers of a Turnaround Leaders Academy to train and build a pipeline of leaders prepared to lead dramatic school change. (E)(2)(ii)
- Indiana holds conversations with universities to gauge interest, level of support, and capacity to support ongoing charter authorization and accountability activities (F)(2)(ii).
- IDOE initiates MOUs between IDOE, superintendents and local school boards in districts where the State's lowest achieving schools are located to ensure all individuals are committed to taking all necessary steps to avoid direct intervention by the state. (E)(2)(ii)
- IDOE releases disaggregated student growth data to schools and LEAs (Phase two). (D)(2)(i)

March

- IDOE begins disseminating charter school facilities funding to charter schools. (F)(2)(iv)
- Common Core standards are finalized. (B)(1)(ii)
- IDOE surveys each LEA on the frequency of teacher and principal evaluations. (D)(2)
- IDOE surveys each LEA on how current teacher and principal evaluation systems are used regarding professional development, compensation, promotion, retention, and removal. (D)(2)

April

- IDOE publicly releases disaggregated student growth data. (D)(2)(i)
- IDOE issues an RFP for non-profit and for-profit organizations interested in and capable of serving in the turnaround management organization role. (E)(2)(ii)
- IDOE issues an RFP for qualified organizations interested in and capable of managing the Support and Accountability Office. (A)(2)(i)(a)
- IDOE develops a data reporting tool for LEA reporting of teacher and principal evaluation results. (D)(2)
- IDOE pilots a statewide teacher and principal evaluation framework. (D)(2)
- IDOE conducts an analysis of all data points required to track performance against RttT targets. (A)(2)(i)(c)
- IDOE releases student level growth data for spring 2009 (Phase three). (D)(2)(i)
- Indiana's IHE's goals and plans for meeting teacher shortage area goals are reported for the first time. (D)(1)(iii)
- IDOE and stakeholders identify additional data sets to load into the Learning Connection from the IDOE data warehouse. (C)(2)

2010 (cont.)

May

- IDOE releases an RFP requesting experienced providers to bid to provide professional development to all administrators in the State regarding how to effectively utilize the common teacher and principal evaluation framework. (D)(5)(i)
- IDOE formally partners with NTC. (D)(5)(i)
- I-STEM conducts successful mathematics professional development courses at sites across the State. (D)(5)(i)

June

- IDOE presents Common Core standards to the Indiana Education Roundtable. (B)(1)(ii)
- Proposals for Support and Accountability Office are due. (A)(2)(i)(a)
- The State Board adopts A-F state accountability revisions. (E)(1)
- IDOE negotiates contract terms with each turnaround management organization. (E)(2)(ii)
- IDOE incorporates new data fields required to track performance against RttT targets into regular reporting so that data may be analyzed. (A)(2)(i)(c)
- IDOE collects course completion data tied to teachers for the first time. (C)(1)

July

- IDOE establishes the Exemplary Leaders Program. (E)(2)
- IDOE and Leadership partners identify, recruit, and select new leadership for turnaround schools. (E)(2)
- IDOE implements meaningful public reporting on key evaluation indicators. (E)(2)
- IDOE completes teacher and principal evaluation results from pilot schools. (D)(2)
- IDOE collects a completed data reporting tool from pilot schools. (D)(2)
- IDOE releases an RFP to build the *Head of the Class* data system. (D)(4)(i)
- Indiana awards incentive funding to a selected university to act as a charter authorizer. (F)(2)(ii)

August

- IDOE selects partner to manage the Support and Accountability Office (A)(2)(i)(a)
- State Board considers final adoption of the Common Core standards (pending approval from the Education Roundtable). (B)(1)(ii)
- Learning Connection expands to include student-level electronic IEPs. (C)(2)
- IDOE releases annual list of the state's lowest-achieving schools; these may implement the turnaround or restart improvement option under a turnaround management organization. (E)(2)(i)
- IDOE offers targeted professional development and evaluation to selected schools. (C)(2)
- IDOE releases an RFP to solicit proposals to provide professional development for Common Core standards. (D)(5)(i)
- Aggregate student data is reported for all teacher education programs and institutions. (D)(4)(i)

2010 (cont.)

August

- Indiana's teacher identifier is linked with Indiana's student test number. (C)(1)

September

- IDOE establishes turnaround networks to connect educators in struggling schools with their colleagues in high performing schools with similar challenges and student populations. (E)(2)
- IDOE and The Mind Trust incubate high-performing new school providers. (E)(2)(ii)
- Districts participating in NTC begin tracking beginning teacher retention data. (D)(5)(i)
- IDOE releases student level growth data for Spring 2010. (D)(2)(i)
- IDOE implements a statewide teacher and principal evaluation framework. (D)(2)(ii)
- IDOE selects a partner to build the *Head of the Class* data system. (D)(4)(i)
- IDOE selects a partner to support schools through the transition to adopting and implementing TAP. (D)(5)(i)

October

- IDOE selects a vendor to provide professional development for Common Core standards to school and district administrators with participating LEAs. (D)(5)(i)
- The first cohort of Turnaround Leaders Academy principals undergoes training to be prepared to lead in the turnaround environment, becomes familiar with the school and community where they will be working, and develops a turnaround plan. (E)(2)
- Recognized exemplary principals begin participating in technical assistance reviews. (E)(2)
- IDOE issues an RFP for a qualified partner to serve as the evaluator of the State's overall turnaround strategy and interventions in individual schools. (E)(2)
- NTC mentors begin working with new teachers. (D)(5)(i)
- I-STEM utilizes growth data to determine whether STEM and PLTW training result in teachers who produce greater student learning gains. (D)(5)(i)
- IDOE seeks maximum flexibility from ED to make granting other federal funding contingent upon an LEA's alignment with RttT principles. (A)(2)(i)(d)
- IDOE, Technical Assistance Partner, and Community Partners provide technical assistance to struggling schools. (E)(2)

November

- The Learning Connection data enhancements released(C)(2)
- A new university campus is selected to develop a Woodrow Wilson Indiana Teaching Fellows program. (D)(3)(ii)

2011

January

- The new charter authorizing university establishes its authorizing office and begins authorizing schools. (F)(2)(ii)
- Schools apply for support in implementing TAP. (D)(5)(i)

- IDOE fully implements a data exchange with higher education. (C)(1)

April
- IDOE fully implements the collection of course completion data tied to teachers. (C)(1)

June
- Professional development for members of the *Governor's Teaching Corps of Excellence* begins. (D)(5)(i)

July
- Indiana changes from a calendar school budgeting and tuition support payments to a school year system. (F)(2)(iii)
- Provisions are added into the state charter school law which allows for the State Board of Education to revoke a sponsor's chartering authority if a school reaches a sixth consecutive year in the state's lowest academic performance category, and the authorizer fails to take action to close or radically intervene in the school to the Board's satisfaction. (F)(2)(ii)

August
- The first class of fellows in the new Woodrow Wilson Indiana Teaching Fellows program in northwest Indiana matriculates. (D)(3)(ii)
- The first group of turnaround schools undergoes direct state intervention. (E)(2)

September
- Information from the teacher and principal preparation evaluation system, *Head of the Class*, is made available to the public. (D)(4)(i)
- IDOE and Education Service Centers support and intervene in LEAs that do not provide a meaningful distribution of teacher and principal effectiveness. (D)(2)
- IDOE publicly reports the number and percentage of teachers and principals at each of the four performance ratings, for each LEA. (D)(2)

2012

June
- LEAs upload district-level assessment data to the Learning Connection. (C)(2)
- IDOE enhances Indiana's at-risk indicator tool. (C)(2)
- IDOE builds data analysis tools and additional custom reports into the Learning Connection to facilitate data analysis. (C)(2)
- As a charter school authorizer, IDOE invites charter school applications. (F)(2)(ii)

August
- Teacher preparation programs not showing gains in student growth are subject to consequences, including having state accreditation revoked. (D)(4)(i)
- New Woodrow Wilson fellows lead classrooms of their own. (D)(3)(ii)
- Indiana schools open for the year utilizing the TAP model. (D)(5)(i)
- Indiana has 240 Teach For America corps members in Indiana (D)(3)(ii).

September
- IDOE raises the bar for each of Indiana's school accountability categories. (E)(2).

2013

May
- Learning Connection expands to include post-secondary feedback data at the individual student level for educators and the aggregated level for the public. (C)(2)
- Common Core Assessment consortium states Implement new sumative assessments. (B)(3)

A-6: BUDGET SUMMARY TABLE AND NARRATIVE

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	$6,923,408	$7,686,052	$8,246,717	$8,832,719	$31,688,896
2. Fringe Benefits	$1,831,638	$2,000,065	$2,115,057	$2,236,087	$8,182,847
3. Travel	$682,442	$1,086,729	$1,245,480	$1,338,117	$4,352,768
4. Equipment	$709,500	$8,000	$8,000	$8,000	$733,500
5. Supplies	$387,786	$446,928	$484,718	$522,060	$1,841,492
6. Contractual	$24,801,404	$26,933,661	$16,809,598	$9,957,205	$78,501,868
7. Training Stipends	$5,713,594	$7,428,013	$7,532,698	$7,587,297	$28,261,602
8. Other	$16,779,533	$13,933,767	$18,943,478	$20,750,888	$70,407,666
9. Total Direct Costs (lines 1-8)	$57,829,307	$59,523,215	$55,385,748	$51,632,372	$224,370,642
10. Indirect Costs*	$2,117,472	$1,811,037	$1,206,847	$744,637	$5,879,993
11.Funding for Involved LEAs	$4,932,400	$4,510,000	$5,710,000	$5,710,000	$20,862,400
12. Supplemental Funding for Participating LEAs	$0	$0	$0	$0	$0
13. Total Costs (lines 9-12)	$64,879,178	$65,844,251	$62,302,594	$57,967,008	$250,993,031
14. Funding Subgranted to Participating LEAs (50% of Total Grant)	$64,879,178	$65,844,251	$62,302,594	$57,967,008	$250,993,031
15. Total Budget (lines 13-14)	$129,758,356	$131,688,502	$124,605,188	$115,934,016	$501,986,062

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.

BUDGET PART I: BUDGET SUMMARY

Indiana requests a total of $501,986,062 RttT funds to support the *Fast Forward* plan. Of this total amount, $250,993,031 (equivalent to 50% of the grant) would be used to fund the nineteen projects outlined below and in the subsequent project-level budgets, and the other 50% would be subgranted to Participating LEAs based on their relative shares of funding under Part A of Title I of the ESEA for the most recent year (FY 2009) in order to implement the State's plan. Together, the projects supporting the *Fast Forward* plan represent a thoughtfully and strategically chosen set of investments that promise to fundamentally impact the education landscape in the State.

In addition to the RttT funds requested, Indiana is prepared to align federal and state funding to support and sustain its *Fast Forward* plan. IDOE will ensure that the state's professional development funding will be used in concert with the professional development described in Sections (B) and (C) regarding the Common Core standards and using data to inform instructional practices. Additionally, the State's significant investment in assessment will be used to produce high-quality assessments that are fully aligned to the Common Core standards.

Indiana will also leverage its federal funding to support and sustain the reform efforts of the *Fast Forward* plan. Working with partners at ED and LEAs, IDOE will work collaboratively to develop plans to use Title I, Title II, Title III, IDEA, ESL and all other federal grants in a manner that is aligned with *Fast Forward* priorities. It is very clear that ED will be implementing consistent stipulations on how federal money can be used in the near future, and IDOE intends to fully align itself with these stipulations.

As stated in Section (A), the interdependent goals of the *Fast Forward* agenda are (1) to rapidly, systematically and permanently transform the structure of education in Indiana and make Indiana a breeding ground of educational innovation; and (2) to create a critical mass of classroom champions who embrace this new structure and demonstrate significant student achievement gains by working within it. While some of the supporting initiatives are investments that will augment programs that are working productively in the existing system—enhancing the presence of Teach For America, for example—most of these efforts will take advantage of one-time RttT

funds to effect change at a structural or policy level. These changes, along with the growing network of champions who support them, will persist long after RttT has ended.

Project Name: Establishment of the *Fast Forward* Support and Accountability Office
Associated with Criteria: (A)(2)(i)(a), (A)(2)(i)(b), (D)(5)(ii), (E)(2)(ii)
This project relates to IDOE's intent to establish a *Fast Forward* Support and Accountability Office responsible for managing responsibilities associated with implementing a RttT grant award. IDOE will task the Office with those grant-specific responsibilities including: program management; grant support; reporting; evaluation; and identifying best practices and opportunities for realignment of funds. The project budget represents the funding necessary for an external management organization to attract high-quality human capital and succeed in fulfilling its role and responsibilities to IDOE as described in the application.
Project Name: Transition to Common Core Standards
Associated with Criteria: (B)(3)
This project relates to IDOE's plans to build a comprehensive toolkit of high-quality materials to support LEAs transitioning to the Common Core standards. The project budget would provide funding for IDOE to contract with experienced vendor(s) to: • Develop a research-based scope and sequence (for each subject area and grade level) in alignment with the Common Core standards; • Develop curriculum maps to be shared with all Indiana teachers and administrators for each subject area and grade level; and • Develop and deliver comprehensive, job-embedded and ongoing professional development to provide optimal support to teachers and administrators.
Project Name: Transition to Common Assessments
Associated with Criteria: (B)(3)
This project relates to IDOE's interim efforts to supplement and bridge its current assessments to the Common Core standards. Specifically, the project budget would provide funding for IDOE to contract with experienced vendor(s) to: • Align ISTEP+ (the State's summative assessments) to the Common Core standards and

develop new items needed to bridge identified gaps;

- Align End of Course Assessments to the Common Core standards and develop new items needed to bridge identified gaps;
- Align K-2 and 3-8 diagnostic assessments to the Common Core standards and develop new items needed to bridge identified gaps; and
- Conduct validity studies of all the newly aligned summative and diagnostic assessments.

Project Name: State Data Systems Improvements

Associated with Criteria: (C)(2)

This project relates to IDOE's comprehensive efforts to improve and enhance the State's instructional improvement systems. Specifically, the project budget would provide funding for IDOE to expand the capabilities and offerings of the Learning Connection portal to:

- Provide local educators immediate access to more accurate data through an automated, real-time data exchange system;
- Report enhanced data;
- Enhance an at-risk indicator tool that identifies students on a drop-out trajectory; and
- Include post-secondary feedback data (e.g., college enrollment, persistence, etc.) at the individual student level.

Project Name: Generation 2 Diagnostic Assessments

Associated with Criteria: (C)(3)(i)

This project relates to IDOE's plans to advance the frontier of diagnostic assessments by investing in the development of "Generation 2" diagnostics that leverage the latest advances in computer adaptive technology. Specifically, the project budget would provide funding for IDOE to contract with an experienced assessment vendor(s) to:

- Develop the necessary software and technology;
- Conduct Generation 2 pilots with LEAs currently using Generation 1 diagnostic tools; and
- Develop training modules and deliver training to new users and Generation 1 users.

Indiana has been a leader in the development and use of diagnostic assessments and was the first state to provide a complete K-8 system of diagnostics to teachers statewide. Indiana adopted aligned K-8 diagnostic assessments in 2008-09 at a cost of $3,600,000 and will spend $6,700,000

this year (2009-10) supporting these assessments. Indiana plans on continued expanded adoption in 2010-11 with a commitment of $8,900,000 in state funding and will reach full implementation during 2011-12 school year, at which time the State's commitment to the diagnostics will be $10,500,000 per year. Over the course of this four year phase-in, the State will have committed over $29,000,000 to the support of these interim and on-demand diagnostic assessments.

Project Name: Professional Development for Instructional Improvement Systems

Associated with Criteria: (C)(3)(ii)

This project relates to IDOE's plans to maximize the impact of the State's investment in sophisticated instructional improvement systems by providing professional development and training to educators regarding how to effectively leverage data in classrooms and schools in ways that truly improve teaching practices. Specifically, the project budget would provide funding for IDOE to contract with an experienced vendor(s) to:

- Develop a comprehensive, integrated set of professional development modules and certification assessment on use of the State's instructional improvement systems;
- Conduct on-the-ground spot check evaluations across the State to ensure the effectiveness of the professional development modules and certification program;
- Establish a data help desk to provide educators with on-demand expert technical assistance; and
- Provide the lowest-achieving schools in Indiana with targeted professional development on the use of instructional improvement systems and tools.

Project Name: Statewide Teacher and Principal Evaluation System

Associated with Criteria: (D)(2)

This project relates to IDOE's comprehensive strategy for adopting a statewide evaluation framework for teachers and principals that is based on both student growth data and classroom observations. Specifically, the project budget would provide funding to:

- Develop the current student growth model to the high school and early elementary levels;
- Develop a sophisticated yet user-friendly visual interface for displaying student growth data in collaboration with other states;
- Develop data systems, reporting tools, and front-end dashboards for educators to

complete, report, and view evaluation results; and

- Provide LEAs with funding for evaluators (e.g., superintendents, principals, teacher leaders, etc.) to be trained and certified in the statewide evaluation system.

Project Name: Indianapolis Principals Fellowship Expansion

Associated with Criteria: (D)(1)(ii)

This project relates to IDOE's plans to increase the number of pathways for prospective principals, especially to lead the State's turnaround efforts. The project budget would provide funding to expand the number of awards for the Indianapolis Principal Fellowship, formed out of a collaboration involving Teach For America, Columbia Teachers College, and Indianapolis Public Schools.

Project Name: Indiana University Dual Business-Education Executive MBA, Educational Licensure Program, and Turnaround Leadership Certificate Program

Associated with Criteria: (D)(1)(ii), (E)(2)

This project relates to IDOE's plans to increase the number of pathways for prospective principals, especially to lead the State's turnaround efforts. The project budget would provide funding to create a unique partnership between the Kelley School of Business, Indiana University Graduate School of Education, Teach For America, and IDOE to establish a pathway to school leadership. The program will establish three distinct pathways to school leadership:

- Turnaround Leadership Certificate Program for current school leaders such as principals, vice principals, and school superintendents;
- Educational Leadership Licensure Program for teachers who have expressed interest in moving into school leadership roles; and
- Executive MBA in Turnaround Leadership for managers from business and not-for-profit sectors who would like to transition into school leadership roles.

Project Name: Teach For America Corps Expansion

Associated with Criteria: (D)(3)(ii)

This project relates to IDOE's plans to double the number of teachers serving in Teach For America in order to bring high-quality candidates into areas of teacher shortage in Indianapolis and Gary. The project budget would provide funding for Teach For America to add one hundred

corps members per year instead of the current rate of fifty per year. By 2012, the State would have 240 corps members in Indiana (two hundred in Indianapolis and forty in Gary).

Project Name: Indianapolis Teaching Fellows Program Expansion

Associated with Criteria: (D)(3)(ii)

This project relates to IDOE's plans to double the number of alternative-route teachers supported by the Indianapolis Teaching Fellows program. Indiana currently supports approximately 40 to 45 fellows per year. The project budget would provide funding for The New Teacher Project to recruit, select, train and place up to 100 alternative-route teachers per year for a total of 400 teachers to serve high-needs schools in Indianapolis and surrounding townships.

Project Name: Woodrow Wilson Indiana Teaching Fellows Program Expansion

Associated with Criteria: (D)(3)(ii)

This project relates to IDOE's plans to increase its support for the Wilson program. Specifically, the project budget would provide funding for the program to:

- Add one new university program to serve students in northwest Indiana to help address a critical need for highly-qualified math and science teachers in the Lake County area;
- Establish a "Math Immersion" program for fellows to strengthen their math skills and content knowledge; and
- Provide funding for 180 fellows (60 per year) dispersed in three cohorts, to the four existing Indiana campuses with whom the Woodrow Wilson Foundation partners. All fellows will be recruited for high-need subject areas—mathematics, the sciences, technology—and will be expected to make a commitment to serve in high-need urban or rural schools in Indiana for at least three years.

Project Name: *Governor's Teaching Corps of Excellence* and *Lead Indiana*

Associated with Criteria: (D)(3)(i), (D)(3)(ii), (D)(5)(i)

This project relates to IDOE's plans to establish two new programs in the state of Indiana—the *Governor's Teaching Corps of Excellence* and *Lead Indiana*—to attract and recruit highly-effective teachers and principals to serve in the State's lowest-achieving schools. The project budget would provide funding to give awards to 25 highly effective teachers and 20 highly effective principals each year for multi-year commitments to serve in a high-poverty and/or high-

minority school.

In addition, the State would direct Title 2 funds to support these programs as Indiana's goals are strongly aligned with the Title 2 equity plan, which ensures that high poverty schools are equally being taught by highly-qualified teachers and being led by highly-qualified principals. The staff in Title 2 would monitor the recruitment, selection, placement, and professional development of corps members and *Lead Indiana* principals.

Project Name: *Head of the Class* Accountability System

Associated with Criteria: (D)(4)(i), (D)(4)(ii)

This project relates to IDOE's plans to develop *Head of the Class,* a rigorous, outcome-based accountability system for teacher and principal preparation programs modeled after the system developed by the Louisiana Department of Education. The project budget would provide funding to contract with an experienced vendor(s) to develop the back-end data systems and front-end, web-based reporting tools that would support the accountability system.

Project Name: Professional Development for Math and Science Teachers

Associated with Criteria: (D)(5)(i), (E)(2)(ii), Priority 2

This project relates to IDOE's plans to expand the capacity of two highly-effective professional development programs for STEM teachers developed and managed by Purdue University: I-STEM Resource Network and Project Lead the Way ("**PLTW**"). Specifically, the project budget would provide funding to:

- Increase access for STEM teachers to attend I-STEM courses on mathematics pedagogy, especially those teaching in the state's bottom 5% of schools;
- Conduct middle grades math professional development courses across the state; and
- Train up to 100 teachers in PLTW's pre-engineering curriculum through an intensive two-week experience that simulates the student perspective.

Project Name: Teacher Advancement Program (TAP)

Associated with Criteria: (D)(5)(i)

This project relates to IDOE's plans to support Participating LEAs that seek to implement the Teacher Advancement Program ("**TAP**") in some or all of their schools. TAP is a comprehensive school reform system that provides powerful opportunities for career

advancement, professional growth, instructionally-focused accountability and competitive compensation for educators. The project budget would provide funding for the full implementation of TAP in up to 25 schools in Indiana. The results from these schools would be used to determine whether future funding should be directed to support additional LEAs to implement the TAP model in some or all of their schools.

Project Name: New Teacher Center (NTC) Teacher Induction Program

Associated with Criteria: (D)(5)(i)

This project relates to IDOE's plans to support a targeted new teacher induction program in the State's struggling schools in partnership with the New Teacher Center (NTC). The project budget would support the launch and implementation of a new teacher induction program in Indianapolis Public Schools and operate an intensive induction program in the bottom 5% of schools in the State. Simultaneous to the operation of programs in districts and schools throughout Indiana, the New Teacher Center would engage with various stakeholders to promote the importance of induction and mentoring efforts to improve teacher retention.

Project Name: State Turnaround Strategy

Associated with Criteria: (D)(1)(ii), (E)(2)(ii)

This project relates to IDOE's comprehensive strategy for turning around the lowest-achieving schools in the State. Specifically, the project budget would provide funding to:

- Conduct comprehensive technical assistance reviews for struggling schools;
- Contract with a vendor to establish a Turnaround Leaders Academy to identify, recruit, train and develop transformational leaders who will focus on the challenge of turning around the State's chronically low-achieving schools;
- Provide incentive funding to assist turnaround management organizations ("**TMOs**") with costs of initial planning and development;
- Establish the Exemplary Leaders Program to recognize principals who achieve breakthrough improvements in low-performing schools;
- Provide grants to establish two new charter school authorizers in the state and improve the capabilities of existing charter school authorizers; and
- Provide professional development stipends to assist schools implementing one of the

turnaround models endorsed by the State.
Project Name: The Indiana Charter School Entrepreneur Fellowship
Associated with Criteria: (E)(2)(ii)
This project relates to IDOE's plans to establish a new program called The Indiana Charter School Entrepreneur Fellowship in partnership with The Mind Trust, an innovative education non-profit. The project budget would support recruiting, selecting, and supporting 50 entrepreneurs over four years as they seek to launch transformative new charter schools in high-need urban and rural districts across the state.

A-7: PROJECT-LEVEL BUDGET TABLES AND NARRATIVES

Budget Part II: Project-Level Budget Table
Project Name: Establishment of the *Fast Forward* Support and Accountability Office
Associated with Criteria: (A)(2)(i)(a), (A)(2)(i)(b), (D)(5)(ii), (E)(2)(ii)
(Evidence for selection criterion (A)(2)(i)(d))

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	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$12,000,000
7. Training Stipends	$0	$0	$0	$0	$0
8. Other	$0	$0	$0	$0	$0
9. Total Direct Costs (lines 1-8)	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$12,000,000
10. Indirect Costs*	$186,000	$186,000	$186,000	$186,000	$744,000
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)	$3,186,000	$3,186,000	$3,186,000	$3,186,000	$12,744,000

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel
N/A

2) Fringe Benefits
N/A

3) Travel
N/A

4) Equipment
N/A

5) Supplies
N/A

6) Contractual

Product/Professional Service	Cost
Establishment of the *Fast Forward* Support and Accountability Office: IDOE will contract with an external organization to take responsibility for managing responsibilities associated with implementing a Race to the Top grant award. IDOE will task the Office with those grant-specific responsibilities including: program management; grant support; reporting; evaluation; and identifying best practices and opportunities for realignment of funds. The project budget represents the funding necessary to for an external management organization to attract high-quality human capital and succeed in fulfilling its role and responsibilities toward the IDOE as described in the application. Based on an analysis of the costs required to succeed in fulfilling its role and responsibilities, IDOE estimates that an external management organization would reasonably require $3,000,000 annually ($12,000,000 over the four-year period). Specifically, the external management organization would use the funding provided to: • Attract high-quality human capital to lead and staff the organization, including but not limited to: an Executive Director (responsible for managing the Support and Accountability Office and working closely with IDOE and State leadership); Program Officers for each of the four policy assurances (responsible for providing content expertise, evaluating the progress of individual programs, and working closely with IDOE staff); Measurement & Evaluation Analysts (responsible for overseeing the collection of data from Race to the Top grant recipients and developing reports to monitor their progress); an IDOE Liaison (responsible for facilitating communication between the two organizations and ensuring that IDOE is held accountable for work within the department). • Hire external support from vendors and contractors for special projects directly related to its role and responsibilities or for activities that support its general success as an organization. This support may include but is not limited to: office leases; equipment and supplies for personnel; graphic design and production for reports and publications on Race to the Top; data analysis and content expertise; website design, hosting, and maintenance; IT support; public relations, etc. • Organize and host regular events (e.g., seminars, workshops, conferences) for various stakeholder groups in the state, such as educators, policymakers, and the general public. Through such events,	$12,000,000

the Support and Accountability Office will inform stakeholders on the performance of Race to the Top related programs and investments, disseminate best practices, and gather feedback.	

7) Training Stipends
N/A

8) Other
N/A

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Transition to Common Core Standards **Associated with Criteria:** (B)(3) **(Evidence for selection criterion (A)(2)(i)(d))**					
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	$1,080,000	$360,000	$0	$0	$1,440,000
7. Training Stipends	$0	$0	$0	$0	$0
8. Other	$0	$0	$0	$0	$0
9. Total Direct Costs (lines 1-8)	$1,080,000	$360,000	$0	$0	$1,440,000
10. Indirect Costs*	$66,960	$22,320	$0	$0	$89,280
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)	$1,146,960	$382,320	$0	$0	$1,529,280

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel
N/A

2) Fringe Benefits
N/A

3) Travel
N/A

4) Equipment
N/A

5) Supplies
N/A

6) Contractual

Product/Professional Service	Cost
Development of scope and sequence for Common Core standards: To support the transition to the Common Core, IDOE will contract with an experienced vendor to lead the development of a research-based scope and sequence (for each subject area and grade level) in alignment with the Common Core standards. The contract will require the vendor to engage a representative team of K-12 teachers from Indiana to participate in the development of the scope and sequence. IDOE expects that an experienced vendor can reasonably complete the required deliverables of the contract within three months, starting in August 2010 and ending by October 2010 (Year 1). Based on previous professional services contracts of a comparable nature, the IDOE estimates that contracting with an experienced vendor for 3 months will cost $360,000 ($100,000 per month in professional fees and expenses capped at 20% of professional fees).	$360,000
Development of Common Core curriculum maps: Upon completion of the scope and sequence for the Common Core standards, IDOE will contract with an experienced vendor(s) to develop curriculum maps for each subject area and grade level (including English Language Learners, Special Education and High Ability) and in alignment with the scope and sequence and Common Core standards. The contract will require the vendor to engage a representative team of K-12 teachers from Indiana to participate in the development of the curriculum maps, and to conduct focus groups with teachers to identify additional guides and/or materials useful to disseminating the Common Core standards throughout the state. IDOE expects that an experienced vendor can reasonably complete the required deliverables of the contract within 6 months, starting in November 2010 and ending by April 2011 (Year 1). Based on previous professional services contracts of a comparable nature, the IDOE estimates that contracting with an experienced vendor for 6 months will cost $720,000 ($100,000 per month in professional fees and expenses capped at 20% of professional fees).	$720,000
Design of Common Core standards professional development and certification program: Upon completion of the Common Core curriculum maps, IDOE will contract with an experienced vendor to develop a comprehensive set of professional development modules and materials to introduce Indiana teachers and administrators to the Common Core standards, scope and sequence, and curriculum maps. The contract will also require the vendor to support IDOE staff in the design and development of a set of assessments for Indiana teachers to become "Common Core Certified (CCC)" in their respective subject and grade level. All professional development modules, materials, and certification assessments will be designed for	$360,000

online distribution via the Learning Connection portal (as WebEx trainings and downloadable files). IDOE expects that an experienced vendor can reasonably complete the required deliverables of the contract within 3 months, starting in June 2011 and ending by August 2011 (Year 2). Based on previous professional services contracts of a comparable nature, the IDOE estimates that contracting with an experienced vendor for 3 months will cost $360,000 ($100,000 per month in professional fees and expenses capped at 20% of professional fees).	

7) Training Stipends
N/A

8) Other
N/A

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Transition to Common Assessments **Associated with Criteria:** (B)(3) **(Evidence for selection criterion (A)(2)(i)(d))**					
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	$2,350,000	$2,875,000	$835,000	$0	$6,060,000
7. Training Stipends	$0	$0	$0	$0	$0
8. Other	$0	$0	$0	$0	$0
9. Total Direct Costs (lines 1-8)	$2,350,000	$2,875,000	$835,000	$0	$6,060,000
10. Indirect Costs*	$145,700	$178,250	$51,770	$0	$375,720
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)	$2,495,700	$3,053,250	$886,770	$0	$6,435,720

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

N/A

2) Fringe Benefits

N/A

3) Travel

N/A

4) Equipment

N/A

5) Supplies
N/A

6) Contractual

Product/Professional Service	Cost
Alignment of ISTEP+ to Common Core standards: IDOE will contract with a vendor with expertise in standards, assessments, and curriculum and gap analysis to lead teacher and content experts in assessing the current alignment of the State's summative assessments to the Common Core standards. The vendor will recommend additions to the current test blueprints which will allow ISTEP+ reading and math assessments to report on both current standards and the Common Core. This work will take place over two school years and include a rigorous Standards of Enacted Curriculum (SEC)-like alignment study of the actual augmented "bridge" tests to both sets of standards. Based on previous professional services contracts of a comparable nature, the IDOE estimates that contracting with an experienced vendor for the activities described above will cost $200,000 in 2010-11 (Year 1) and $100,000 in 2011-12 (Year 2).	$300,000
ISTEP+ Item Development: IDOE will contract with a vendor with expertise in item development to construct selected response and constructed response items, coordinate all required content and bias review meetings and field test any additional items needed to augment the current assessment so that Common Core standard reporting can begin while the consortium led Common Core assessment are under development. Based on Indiana's most recent change in content standards, IDOE anticipates that this work will cost $1,000,000 over two years ($500,000 per content area). Item development and review will occur in 2010-11 (Year 1) with piloting early in 2011-12 (Year 2).	$1,000,000
Alignment of End of Course Assessments (ECAs) to Common Core standards: IDOE will contract with a vendor with expertise in standards, assessments, and curriculum and gap analysis to lead teacher and content experts in assessing the current alignment of the State's ECAs to the Common Core standards. The vendor will recommend additions to the current test blueprints which will allow the ECAs to report on both current standards and the Common Core. This work will take place over two school years and include a rigorous Standards of Enacted Curriculum (SEC)-like alignment study of the actual augmented "bridge" tests to both sets of standards. Based on previous professional services contracts of a comparable nature, the IDOE estimates that contracting with an experienced vendor for the activities described above will cost $150,000 in 2010-11 (Year 1) and $75,000 in 2011-12 (Year 2).	$225,000
ECA Item Development: IDOE will contract with a vendor with expertise in item development to construct selected response and constructed response items,	$600,000

coordinate all required content and bias review meetings and field test any additional items needed to augment the current end of course assessments so that Common Core standard reporting can begin while the consortium led Common Core assessment are under development. Based on the most recent change in content standards it is anticipated that this work will cost $600,000 ($200,000 per course) over two years. Item development and review will occur in 2010-11 and piloting early in 2011-12.	
Alignment of K-2 Diagnostic Assessments to Common Core standards: IDOE will contract with an experienced vendor to align the current K-2 diagnostic assessments to the Common Core standards. Specifically, the selected vendor will be required to do the following: • Review and realign measures to Common Core standards and develop new items to fill gaps (2010-11) • Develop software and technology to support new assessments (2010-12) • Deploy new assessments to align to Common Core standards (2011-12) • Conduct validity research on new assessments (2011-13) • Conduct reliability research on new assessments and redeploy assessments (2012-13) Based on previous professional services contracts of a comparable nature, IDOE estimates that contracting with an experienced vendor for the activities described above will cost $650,000 in 2010-11 (Year 1), $800,000 in 2011-12 (Year 2), and $300,000 in 2012-13 (Year 3).	$1,750,000
Alignment of 3-8 Diagnostic Assessments to Common Core standards: IDOE will contract with an experienced vendor to align the current 3-8 diagnostic assessments to the Common Core standards. Specifically, the selected vendor will be required to do the following: • Review and realign measures to Common Core standards and develop new items to fill gaps (2010-11) • Develop software and technology to support new assessments (2010-12) • Deploy new assessments to align to Common Core standards (2011-12) • Conduct validity research on new assessments (2011-13) • Conduct reliability research on new assessments and redeploy assessments (2012-13) Based on previous professional services contracts of a comparable nature, IDOE estimates that contracting with an experienced vendor for the activities described above will cost $350,000 in 2010-11 (Year 1), $1,200,000 in 2011-12 (Year 2), and $300,000 in 2012-13 (Year 3).	$1,850,000
Validity Studies: IDOE will contract with a vendor with expertise in assessment, reliability and validity to conduct independent reliability and validity studies of the newly aligned, hybrid ISTEP+ and ECA assessments and the revised and realigned diagnostic assessments for K-2 and 3-8. These studies would include assessing the consequential, concurrent and predictive validity of the State's assessments. The	$235,000

work would be done in mid-to-late 2012 after the first administration of the newly aligned assessments. Based on previous professional services contracts of a comparable nature, IDOE estimates validity studies will cost $100,000 for the ISTEP+ assessment, $60,000 for the Graduation Qualifying Exam, and $75,000 for the K-2 and 3-8 diagnostic assessments.	

7) Training Stipends
N/A

8) Other
N/A

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** State Data Systems Improvements **Associated with Criteria:** (C)(2) **(Evidence for selection criterion (A)(2)(i)(d))**					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	$204,643	$204,643	$204,643	$204,643	$818,574
2. Fringe Benefits	$71,625	$71,625	$71,625	$71,625	$286,501
3. Travel	$10,000	$10,000	$10,000	$10,000	$40,000
4. Equipment	$617,500	$0	$0	$0	$617,500
5. Supplies	$0	$0	$0	$0	$0
6. Contractual	$4,774,000	$4,889,000	$3,399,000	$1,954,000	$15,016,000
7. Training Stipends	$0	$0	$0	$0	$0
8. Other	$50,000	$50,000	$50,000	$50,000	$200,000
9. Total Direct Costs (lines 1-8)	$5,727,769	$5,225,269	$3,735,269	$2,290,269	$16,978,574
10. Indirect Costs*	$355,122	$323,967	$231,587	$141,997	$1,052,672
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)	$6,082,890	$5,549,235	$3,966,855	$2,432,265	$18,031,246

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total**
Project Manager (1): The project manager will be responsible for developing a project plan for all three core elements and managing the day-to-day operations of IDOE and contractor resources in keeping with the project's commitments.	100%	$65,832	$65,832

Database Administrator (1): The dedicated DBA will be responsible for the development, implementation, and maintenance of the SQL server and Oracle databases that contain Indiana data.	100%	$70,000	$70,000
Data Warehouse Architect/Database Developer (1): The data warehouse architect will be responsible for analyzing business requirements, assessing data sources, creating dimensional data models, and developing ETL code for data obtained through real-time exchange and exchange with higher education and workforce.	100%	$58,906	$58,906
Infrastructure Engineer (1): The infrastructure engineer will be responsible for hardware installation, network optimization, and infrastructure software maintenance.	20%	$15968	$15,968
Help Desk Specialist (1): The Help Desk Specialist will be responsible for employee and stakeholder technical support and submitting and escalating work orders related to the project (especially around real-time data exchange and Learning Connection). She will also be responsible for directing the development of user manuals and providing training as needed.	50%	$17,500	$17,500

2) Fringe Benefits

Fringe benefits are estimated based on the salaries of state-specific personnel.

Personnel	**Fringe Benefit Percentage**
Project Manager	35%
Database Administrator	35%
Data Warehouse Architect/Database Developer	35%
Infrastructure Engineer	35%
Help Desk Specialist	35%
TOTAL	

3) Travel

Travel	**# Trips**	**$ per Trip**	**Total**
Travel expenses include projected costs for travel to training opportunities, including travel to other states (e.g., Oregon to review Oregon DATA project, Nevada to review real-time data exchange) and travel to training seminars, especially around SOA, data	40 (10 trips per year)	$1,000	$40,000

reporting, data warehousing, and database administration.			

4) Equipment

Equipment	# of Units	Cost per Unit	Total
Dell laptops – Laptops will be used by state personnel and consultants in implementing their deliverables (Year 1 only)	15	$2,500	$37,500
IBM WebSphere DataPower Integration Appliance XI50 for the ESB (enterprise service bus) solution and a test machine in order to implement the real-time automated data exchange solution (Year 1 only)	3	$85,000	$255,000
Additional SAN disk space (48Tb) for data storage (Year 1 only)	N/A	N/A	$250,000
General Infrastructure upgrades, including backup network solution switches, license, and cards (Year 1 only)	N/A	N/A	$75,000

5) Supplies
N/A

6) Contractual
Note: The following costs are estimated and the IDOE will follow standard Indiana Department of Administration contracting procedures, including requirements for vendor bidding.

Product/Professional Service	Cost
Contract developers: IDOE intends to augment current staff with 4 contractors for the duration of the project. The contractors will help us develop the necessary XML based web services to communicate with the districts, help us with data auditing, and develop our internal and external reporting websites. The cost of the staff augmentation is calculated by 37.5 hours per week for 52 weeks times three years with a billable rate of $80/hr per year. The total staff augmentation costs will be $624,000 annually from 2010-2014 (4 years total). Contractors will be 100% FTE on the project.	$2,496,000
E-transcript service: Based on cost estimates received from potential vendors, the cost of E-Transcript service, data repository, and mapping tool to map courses to standardized SCED mapping will be $2,000,000 in 2010-11, $1,500,000 in 2011-12, and $1,000,000 in 2012-13 and 2013-14. These costs will support: • Full project and account management throughout the lifecycle of the project; • Live Web-based training for school personnel; • Unlimited electronic transcript transmissions among all participating Indiana high schools and postsecondary institutions; • Creation of a common school record exchange report template, upload service, bi-directional request and retrieve interfaces, and on-demand training materials (for K-12 schools electing to participate in electronic	$5,500,000

records exchange); • Unlimited transcript transmissions to any other destination nationwide; • Support services provided to end users; • Marketing and instructional materials; • Licensing fees; • Bulk upload support for transcript repository loads; • Deployment and ongoing support for mapping of local and state course names to NCES SCED; • Administrator and state interface for mapping courses to SCED; • Normalized course and grade information sent to participating public in-state postsecondary institutions; • Exportable Excel reports reflecting normalized state and local course codes; • Diploma audit PDF reports and an interface for report download	
Real-time automated data exchange solution: Based on cost estimates we received the cost of vendor implementation, support for the implementation of the real-time automated data exchange solution will be $5,000,000. Of the $5,000,000 total, $1,400,000 will be focused on the IDOE implementation and the remaining $3,600,000 will be used to implement the solution at the school corporation level. The DOE level implementation estimate is based on 7000 man hours @$200/hr. Services will include: • Project management throughout the lifecycle of the project • Implementation and configuration infrastructure software • Requirements analysis for changes to state system • Design, development, and testing of changes • Integration and performance testing • Training of state employees • Implementation and deployment • Post-production support The school corporation implementation estimate is based on 2 key factors: (1) working with the SIS vendors in the state, and (2) working directly with schools that do not utilize an off the shelf SIS vendor. The work with SIS vendors is based on 200 hrs X 40 distinct vendors @$200/hr = $1,600,000. The work with school corporations without off the shelf SIS vendors was calculated using 50 school corporations X 200 hours @$200/hr = $2,000,000. Based on a phased approach to bringing schools corporations onboard, we expect our costs will be $2,000,000 in year 1, $1,700,000 in year 2, and $1,300,000 in year 3. Services will include: • Implementation and configuration infrastructure software • Integration and performance testing • Requirements analysis of SIS Web services interface • Design, development, and testing of SIS Web services interface • Interface integration testing • Training of district employees	$5,000,000

Learning Connection enhancements: IDOE contract with an vendor to implement enhancements to current system allowing the school corps to upload data into the DOE central data Warehouse for reporting back through Learning Connection, training on utilization of the system to upload data, and data marts for a single view of data to drive classroom instruction ($100,000 in year 1, $1,000,000 in year 2, $400,000 in year 3, and $250,000 in year 4).	$1,750,000
Independent project implementation evaluator: IDOE will contract with an independent evaluator to ensure that it is implementing its project with fidelity and achieving desired outcomes ($50,000 in year 1, $65,000 in year 2, $75,000 in year 3, and $80,000 in year 4).	$270,000

7) Training Stipends
N/A

8) Other

Category	**Estimated Cost**
Software costs not associated with vendor solutions, including backup software, software licenses, operating systems, monitoring tools, and development tools ($50,000 in year 1, $50,000 in year 2, $50,000 in year 3, and $50,000 in year 4).	$200,000

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Generation 2 Diagnostic Assessments **Associated with Criteria:** (C)(3)(i) **(Evidence for selection criterion (A)(2)(i)(d))**					
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	$6,000,000	$10,800,000	$4,400,000	$400,000	$21,600,000
7. Training Stipends	$0	$0	$0	$0	$0
8. Other	$0	$0	$0	$0	$0
9. Total Direct Costs (lines 1-8)	$6,000,000	$10,800,000	$4,400,000	$400,000	$21,600,000
10. Indirect Costs*	$372,000	$669,600	$272,800	$24,800	$1,339,200
11.Funding for Involved LEAs	$0	$0	$3,700,000	$3,700,000	$7,400,000
12. Supplemental Funding for Participating LEAs	$0	$0	$0	$0	$0
13. Total Costs (lines 9-12)	$6,372,000	$11,469,600	$8,372,800	$4,124,800	$30,339,200

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel
N/A

2) Fringe Benefits
N/A

3) Travel
N/A

4) Equipment
N/A

5) Supplies
N/A

6) Contractual

Product/Professional Service	Cost
Development of Generation 2 Diagnostic Assessments: IDOE will contract with an experienced assessment vendor(s) to develop the next generation of diagnostic assessment technology. A substantial part of the work required from the vendor will be to expand the existing platform into a more intelligent system that can produce individual adaptive assessments that monitor both a student's progress against the "grade level" standards and the student's current mastery in the overall scope of the content area. Specifically, this effort will involve doing the following: • Construction and validation of the learning progressions for the common core standards in collaboration with researchers and teachers; • Item development to produce a greatly expanded item pool that has the correct level of specificity and full coverage of the content domain; • Software and technology development to produce enhanced and more intuitive links to instructional strategies and resources that directly address the specific needs of individual students or groups of students • Cost to administer Generation 2 assessments to students in schools participating in pilots • Refinement of sophisticated algorithms and automated formative assessments. We anticipate awarding this work within three months of award with an intensive 24-month cycle of ongoing development, pilot testing, revision and retesting. In 2010-11 (Year 1), a sample of up to 20% of the LEAs that are currently using the Generation 1 diagnostic tools will be selected to participate as active pilot sites for Generation 2. In 2011-12, up to 60% of the LEAs that are currently Generation 1 users will participate in a large-scale pilot of the Generation 2 system. In 2012-13, the system would be ready for Generation 1 users to be able to adopt a fully functioning Generation 2 system. Research and efficacy studies would begin in 2012-13 and continue through 2013-14. Based on Indiana's previous experience with the costs of developing the Generation 1 diagnostic assessments as well as input from potential assessment vendors regarding the desired capabilities of the Generation 2 system, IDOE anticipates the full cost to develop and deploy Generation 2 diagnostic assessments would be $20,000,000 ($6,000,000 for 2010-11 pilot, $10,000,000 for the 2011-12 large-scale pilot, and $4,000,000 for final development work and research and efficacy studies). In addition to the resources required to complete the activities and deliverables described above, these cost estimates include equipment (e.g., servers, hosting, data storage), software licenses and maintenance, and technical and customer support that would be provided by the vendor.	$20,000,000

Generation 2 Diagnostic Assessments Training: IDOE will contract with a vendor with expertise in training to work with the Generation 2 development vendor to design, pilot, and finalize the training needed for new users and current users to transition from the Generation 1 to the Generation 2 diagnostic tools. Training modules will be designed, developed, and tested with the schools that are part of the large-scale pilot in 2011-12 (Year 2). Specifically, the selected vendor will be required to do the following: • Develop a full set of web-based and interactive training modules for new users and Generation 1 users • Design and deliver required training through a train-the-trainer model • Conduct in-person, lab-based training to supplement the train-the-trainer model for new users Based on Indiana's previous experience with the costs of developing and delivering a training program for the Generation 1 diagnostic assessments, IDOE anticipates the cost to develop the training modules in 2011-12 would be $800,000 and $400,000 annually to deliver the training during the 2012-13 and 2013-14 school years.	$1,600,000

7) Training Stipends
N/A

8) Other
N/A

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs

Activity	Purpose	Cost	# LEAs involved	Total
Funding to subsidize the increased per student cost of administering Generation 2 diagnostics.	Implement statewide adoption of Generation 2 diagnostic assessments	$5.00 per student x 740,000 students for 2012-13 and 2013-14 school years (across all involved LEAs)	350	$3,700,000

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Professional Development for Instructional Improvement Systems **Associated with Criteria:** (C)(3)(ii) **(Evidence for selection criterion (A)(2)(i)(d))**					
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	$1,600,000	$1,240,000	$1,240,000	$1,240,000	$5,200,000
7. Training Stipends	$0	$0	$0	$0	$0
8. Other	$0	$0	$0	$0	$0
9. Total Direct Costs (lines 1-8)	$1,600,000	$1,240,000	$1,240,000	$1,240,000	$5,200,000
10. Indirect Costs*	$99,200	$76,880	$76,880	$69,440	$322,400
11.Funding for Involved LEAs	$482,400	$60,000	$60,000	$60,000	$662,400
12. Supplemental Funding for Participating LEAs	$0	$0	$0	$0	$0
13. Total Costs (lines 9-12)	$2,181,600	$1,376,880	$1,376,880	$1,249,440	$6,184,800

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel
N/A

2) Fringe Benefits
N/A

3) Travel
N/A

4) Equipment
N/A

5) Supplies
N/A

6) Contractual

Product/Professional Service	Cost
Design of professional development and certification program for Indiana instructional improvement systems: IDOE will contract with an experienced vendor to develop a comprehensive set of professional development modules and materials to familiarize Indiana teachers and administrators with the capabilities of the state's instructional improvement systems. Specifically, the selected vendor will develop training materials to help educators learn to do the following: • Use hardware/software; • Understand the student-level longitudinal data made available through the Learning Connection; • Use reports generated by the Generation 2 diagnostic assessments; • Connect instructional content for the purpose of finding new ways to instruct; • Help strategic about ways in which data may inform instruction for a given educator/student. The contract will also require the vendor to design a comprehensive assessment in order for Indiana educators to become certified in the use of the State's instructional improvement systems. All professional development modules, materials, and certification assessments will be designed for online distribution via the Learning Connection portal (as WebEx trainings and downloadable files). Targeted professional development materials will be developed and offered to teachers in Indiana's lowest achieving schools (see budget line 11 for funding designated for teachers in the bottom 5% of schools). IDOE expects that an experienced vendor can reasonably complete the required deliverables of the contract within 3 months, starting in June 2010 and ending by August 2010 (Year 1). IDOE plans for one month of vendor support during the summers of 2011-12 and 2012-13 based on the schedule of major enhancements planned for the State's instructional improvement systems (e.g., significant updates to the Learning Connection portal in 2011-12, adoption of Generation 2 diagnostic assessments in 2012-13). Based on previous professional services contracts of a comparable nature, the IDOE estimates that contracting with an experienced vendor for the activities described above will cost $360,000 in Summer 2010 ($100,000 per month in professional fees and expenses capped at 20%	$600,000

of professional fees); $120,000 in Summer 2011; and $120,000 in Summer 2012.	
Evaluation "spot checks" of effectiveness of professional development: IDOE will work with a contractor to design a formative and summative evaluation of the effectiveness of targeted professional development activities for the lowest performing schools in the state. In 2010-2011, IDOE and the contractor will design the evaluation, including creating a logic model, identifying methods for formative and process evaluation (such as observation rubrics, interview protocols, etc.) and identifying methods for summative evaluation (such as data points and statistical analysis). In 2011-14, the evaluator will continue to conduct evaluations across the state and provide feedback to IDOE. Based on previous professional services contracts of a comparable nature, the IDOE estimates that contracting with an experienced vendor for the activities described above will cost $240,000 in 2010-11 for 4 months of support to design and conduct evaluations ($50,000 per month in professional fees and expenses capped at 20% of professional fees) and $120,000 for 2 months of support during years 2011-14 to conduct evaluations ($50,000 per month in professional fees each year and expenses capped at 20% of professional fees).	$600,000
Educator Data Help Desk: IDOE will contract with a vendor to help establish a statewide data help desk that can provide on-demand expert technical assistance to individual educators to help them understand the data made available through the state's instructional improvement systems, such as the Learning Connection. Educators will be able to call or email the help desk, which will be staffed by data specialists, at times convenient for them and ask questions specific to their data sets. Based on preliminary survey of potential vendors, IDOE estimates that establishing and maintaining a statewide data help desk from 2010-14 will cost $1,000,000 annually.	$4,000,000

7) Training Stipends
N/A

8) Other
N/A

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs

Activity	Purpose	Cost	# LEAs involved	Total
Funding for the bottom 5% of schools to release teachers for one day to attend training sessions on how to effectively use the instructional improvement systems available in Indiana	Targeted professional development for teachers in the bottom 5% of schools on the use of instructional improvement systems	$120 per teacher x 4,020 teachers in the bottom 5% of school for 2010-11 (Year 1); $120 x 500 teachers each school year from 2011-14 (to account for teacher turnover and additional schools)	41	$662,400

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Statewide Teacher and Principal Evaluation System **Associated with Criteria:** (D)(2) **(Evidence for selection criterion (A)(2)(i)(d))**					
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	$2,960,000	$1,020,000	$1,020,000	$420,000	$5,420,000
7. Training Stipends	$0	$0	$0	$0	$0
8. Other	$100,000	$100,000	$100,000	$100,000	$400,000
9. Total Direct Costs (lines 1-8)	$3,060,000	$1,120,000	$1,120,000	$520,000	$5,820,000
10. Indirect Costs*	$189,720	$69,440	$69,440	$32,240	$360,840
11.Funding for Involved LEAs	$3,200,000	$3,200,000	$700,000	$700,000	$7,800,000
12. Supplemental Funding for Participating LEAs	$0	$0	$0	$0	$0
13. Total Costs (lines 9-12)	$6,449,720	$4,389,440	$1,889,440	$1,252,240	$13,980,840
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.					

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

N/A

2) Fringe Benefits

N/A

3) Travel

N/A

4) Equipment

N/A

5) Supplies
N/A

6) Contractual

Product/Professional Service	Cost
Expansion of the Student Growth Model: IDOE will work with nationally recognized experts in growth model development to validly and fairly expand the current growth model to the high school and early elementary levels; build technically sound growth linkages from the diagnostic tests which begin in Kindergarten; and ensure that growth can be measured to the goal of college and career readiness. Additional statistical, psychometric and policy review and advice on the full integration of student growth into educator evaluation and school accountability systems. IDOE expects that this work would be spread over 3 years ($300,000 in 2010-11; $100,000 in 2011-12; and $100,000 in 2012-13) to ensure that the full range of the assessment system is fully integrated.	$500,000
Online interface for Student Growth Model: Indiana has entered into a Growth Model MOU with Colorado and Arizona to share resources, innovations, and a common set of data visualization tools and a shared data platform built specifically for our adopted Student Percentile Growth (SPG) model. This will allow innovations in displays or analysis by one state to be quickly migrated adopted by the others. Concentrating on a single data visualization tool allows for a "build once, use often" opportunity and creates a system that no single state has the time or resources to support. Based on discussions with partner states, IDOE estimates the annual contributions to the effort will be $300,000 for a four year period.	$1,200,000
Development of data systems, reporting tools, and user dashboards for teacher and principal evaluations: IDOE will contract with a software consulting firm to lead the development of a common statewide evaluation system. The project will cover the requirements gathering, development, implementation, and update phases over a 2 year period from 2010-2012. The software solution will be a web-enabled system that will tightly integrate with the existing Learning Connection portal to collect and report the results of teacher and principal evaluations at the individual, school, and corporation level. The data will also be deposited into our IDOE data warehouse, where it can be used conveniently accessed for data analysis. As a part of building the evaluation system, IDOE will also update an antiquated teacher/administrator licensing system to enable a reliable flow of data between licensing and teacher/administrator evaluations.	$3,000,000

Based on previous software development projects of a comparable nature, the IDOE expects that this work would require 2 years of development and cost a total of $2,000,000 over that time period. The system would be developed and piloted in 2010-11 with LEAs using the statewide evaluation system ($2,000,000 in Year 1). Additional vendor support is anticipated in 2011-12 and 2012-13 ($500,000 per year) to optimize and refine the system prior to large-scale adoption of the evaluation framework.	
Design of professional development and certification program on statewide teacher and principal evaluation system: IDOE will contract with an experienced vendor to develop a comprehensive set of professional development modules and materials to familiarize and certify Indiana administrators and teachers with the statewide evaluation framework and corresponding data tools. The contract will also require the vendor to design a comprehensive assessment in order for Indiana administrators (superintendents, principals, and assistant principals) to become certified in conducting valid teacher evaluations that comply with the statewide evaluation framework. All professional development modules, materials, and certification assessments will be designed for online distribution (e.g., as WebEx training sessions, downloadable files, etc.). IDOE expects that an experienced vendor can reasonably complete the required activities and deliverables of the contract within 3 months during 2010-11 (Year 1). IDOE plans for one month of vendor support during 2011-2014 (Years 2-4) in order to modify training materials and update the certification assessments as necessary. Based on previous professional services contracts of a comparable nature, the IDOE estimates that contracting with an experienced vendor for the activities described above will cost $360,000 in Year 1 and $120,000 annually during Years 2-4 ($100,000 per month in professional fees and expenses capped at 20% of professional fees).	$720,000

7) Training Stipends
N/A

8) Other

Category	**Estimated Cost**
State Engagement Strategy: IDOE will conduct various workshops and events to engage administrators, teacher leaders, education experts, and other related stakeholders during and after the adoption of a statewide evaluation system. These workshops and events will be integral to creating statewide adoption of the system, and for collecting valuable feedback on how to optimize and continually improve the system.	$400,000

IDOE estimates engagement-related activities will cost $100,000 per year for all four years (2010-2014).	

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs

Activity	Purpose	Cost	# LEAs involved	Total
Funding for evaluators (e.g., superintendents, principals, teacher leaders, etc.) to attend in-person, regional training sessions to become certified in conducting teacher and/or principal evaluations using the statewide evaluation system framework and data tools	Train and certify evaluators on how to conduct valid teacher and/or principal evaluations that comply with the requirements of the statewide evaluation framework	$20,000 (average grant amount, will vary based on LEA size) x 160 LEAs for 2010-11 and 2011-12 (based on 45% LEA adoption target); $20,000 x 35 LEAs for 2012-13 (last 10% of adopters); $20,000 x 35 LEAs for 2013-14 (to account for turnover)	350	$7,800,000

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Indianapolis Principals Fellowship **Associated with Criteria:** (D)(1)(ii) **(Evidence for selection criterion (A)(2)(i)(d))**					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	$60,000	$60,000	$60,000	$60,000	$240,000
2. Fringe Benefits	$10,000	$10,000	$10,000	$10,000	$40,000
3. Travel	$7,500	$7,500	$7,500	$7,500	$30,000
4. Equipment	$0	$0	$0	$0	$0
5. Supplies	$7,000	$7,000	$7,000	$7,000	$28,000
6. Contractual	$0	$0	$0	$0	$0
7. Training Stipends	$250,000	$250,000	$350,000	$400,000	$1,250,000
8. Other	$15,000	$15,000	$15,000	$15,000	$60,000
9. Total Direct Costs (lines 1-8)	$349,500	$349,500	$449,500	$499,500	$1,648,000
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)	$349,500	$349,500	$449,500	$499,500	$1,648,000

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total**
Director of Alumni Affairs (1): The person who accepts this role will be responsible for mobilizing a network of alumni in the fields of education, policy, and political leadership, fostering leadership amongst alumni in Indiana, building external relationships and ensuring stewardship of the organization, and advancing alumni thinking.	75%	$80,000	$60,000

2) Fringe Benefits
Fringe benefits are estimated based on the salaries of Teach for America personnel.

Personnel	Fringe Benefit Percentage
Director of Alumni Affairs	16.7%
TOTAL	

3) Travel

Travel	# Trips	$ per Trip	Total
The Director of Alumni Affairs will travel to Columbia University approximately 3 times a year during the school year and 2 times during the summer while interns are in session	5	$1,500	$30,000

4) Equipment
N/A

5) Supplies

Category	Estimated Cost
Marketing materials: Covers the cost to produce and distribute material designed to recruit highly talented individuals to the program. This will include but not be limited to brochures, bulletins, websites, and fliers.	$5,000
Office supplies: Covers the cost of the office supplies necessary to manage the project. These will include but not be limited to copy machine expenses, printers, copy paper, pens, scissors, staplers, and paper clips.	$2,000

6) Contractual
N/A

7) Training Stipends

Stipend	Estimated Cost
Tuition at Columbia University: The program pays for up to 25 future school leaders to attend Columbia University. This includes a $50,000 one-time payment for each selected leader, to be paid directly to Columbia University Teacher's College for tuition costs (5 school leaders in 2010-11 and 2011-12; 7 school leaders in 2012-13; and 8 school leaders in 2013-14).	$1,250,000

8) Other

Category	Estimated Cost
Events: Events will be held to promote the program, to recruit candidates, to interview and select leaders, and to provide continued support throughout the leader's tenure in the program.	$15,000

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Indiana University Dual Business-Education Executive MBA, Educational Licensure Program, and Turnaround Leadership Certificate Program **Associated with Criteria:** (D)(1)(ii) **(Evidence for selection criterion (A)(2)(i)(d))**					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	$119,152	$122,727	$126,408	$130,201	$498,488
2. Fringe Benefits	$47,661	$49,091	$50,563	$52,080	$199,395
3. Travel	$5,000	$5,000	$5,000	$5,000	$20,000
4. Equipment	$5,000	$5,000	$5,000	$5,000	$20,000
5. Supplies	$1,000	$1,000	$1,000	$1,000	$4,000
6. Contractual	$175,000	$75,000	$0	$0	$250,000
7. Training Stipends	$3,990,000	$5,700,000	$5,700,000	$5,700,000	$21,090,000
8. Other	$123,000	$168,000	$168,000	$168,000	$626,999
9. Total Direct Costs (lines 1-8)	$4,465,813	$6,125,817	$6,055,971	$6,061,280	$22,708,881
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)	$4,465,813	$6,125,817	$6,055,971	$6,061,280	$22,708,881
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.					

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total**
Program Coordinator, Kelley School (1): Coordinator/planner for the Kelley School for the Executive Dual Degree MBA and the Turnaround Leadership Certificate Program. This individual will also work with the coordinator from the School of Education. This person will	100%	$80,000	$80,000

be in charge of coordinating all aspects of in-residence sessions at the Kelley School and the School of Education such as registering participants, room scheduling, coordinating teaching with faculty, developing curricula in conjunction with faculty, ordering program materials, and handling room reservations. They will also be responsible for coordinating any online materials developed by the faculty. The Kelley School will allocate a Clinical Professor to serve as a full-time Program Coordinator from the Business School. The budget incorporates a 3% salary increase for each year after Year 1.			
Program Coordinator, School of Education (1): Coordinator/planner for School of Education will be in charge of coordinating all aspects of principal certification program and assist with the Turnaround Leadership and Dual Degree MBA programs. This individual will work on directing all communications to participants, in-residence sessions at the Kelley School and the School of Education, registration, coordinating the timing and delivery of on-line or synchronous distance education, the preparation and delivery of instructional materials. A clinical professor from the Educational Leadership Program in the School of Education will serve in this capacity. It will represent 33% of the individual's time. The budget incorporates a 3% salary increase for each year after Year 1.	33%	$118,643	$39,152

2) Fringe Benefits

Fringe benefits are estimated based on the salaries of Indiana University personnel.

Personnel	**Fringe Benefit Percentage**
Program Coordinator, Kelley School	40%
Program Coordinator, School of Education	40%
TOTAL	

3) Travel

Travel	**# Trips**	**$ per Trip**	**Total**
Visits to schools where students are doing field work and/or internships and meetings with IDOE officials.	10	$500	$5,000

4) Equipment

Category	Estimated Cost
Purchase of instructional production equipment (desktop cameras, digital voice recorders, flip video cameras, and camcorders with tripods.	$5,000

5) Supplies

Category	Estimated Cost
Office supplies: Postage, express mail, consumable electronic and other supplies, and instructional support materials for faculty.	$1,000

6) Contractual

Product/Professional Service	Estimated Cost
Course development: The Executive MBA will require the development of 15 courses, which includes moving some courses to an on-line asynchronous course which can be time consuming and must be full completed before the first class takes place. Faculty stipends for course development are $10,000 per course and go toward partial coverage of faculty "summer support" for a total of $150,000. The Certificate program will require the Kelley School and the School of Education to develop a series of modules that equate to 6 credit hours, which carries a development cost of $20,000. The Licensure program is composed of 8 courses which equates to $80,000 in development cost. Total development cost will be $250,000 ($175,000 in Year 1 and $75,000 in Year 2).	$250,000

7) Training Stipends

Stipend	Estimated Cost
eMBA Fellowships: Tuition for the eMBA is set at $1,900 per credit hour. Enrollment to the program will be competitive, but all who are enrolled will receive a fellowship to cover tuition. The value of a Fellowship is $85,500. Assuming that it will take two years to complete the degree and 40 students in each cohort, we will have a fellowship cost of $42,750/year per student ($1,710,000 for 40 students in Year 1; $3,420,000 for 80 students in Years 2-4).	$11,970,000
Educational Leadership Licensure Program: Tuition for the Education Leadership Licensure Program will be set at $1,900 per credit hour. Enrollment to the program will be competitive, but all who are enrolled will receive a fellowship to cover tuition. The value of a fellowship is $45,600. The total annual cost will be $1,824,000 for 40 fellows.	$7,296,000
Turnaround Leadership Certificate Program: The 15-weeks Turnaround Leadership Certificate Program equates to 6 credit hours at $1,900 per	$1,824,000

credit hour. Fellowships for this program are valued at $11,400 per participant. The total annual cost will be $456,000 per year for 40 fellows.	

8) Other

Category	Estimated Cost
Program materials: IU will produce program materials for the eMBA program, Education Leadership Licensure Program, and Turnaround Leadership Certificate Program. In the first year we will not have a full cohort in all programs so the costs to produce all instructional related program materials will be $123,000. Total annual materials cost for Years 2-4 will be $168,000 for all three programs.	$626,699

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Teach for America Corps Expansion **Associated with Criteria:** (D)(3)(ii) **(Evidence for selection criterion (A)(2)(i)(d))**					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	$780,014	$1,234,031	$1,710,987	$2,179,226	$5,904,258
2. Fringe Benefits	$140,895	$216,200	$305,575	$393,233	$1,055,903
3. Travel	$270,482	$579,491	$676,435	$773,435	$2,299,844
4. Equipment	$0	$0	$0	$0	$0
5. Supplies	$72,189	$129,271	$166,264	$202,768	$570,493
6. Contractual	$43,226	$71,343	$97,033	$122,281	$333,884
7. Training Stipends	$7,514	$11,933	$16,618	$21,217	$57,282
8. Other	$263,658	$450,037	$597,480	$742,609	$2,053,783
9. Total Direct Costs (lines 1-8)	$1,577,979	$2,692,306	$3,570,393	$4,434,768	$12,275,447
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)	$1,577,979	$2,692,306	$3,570,393	$4,434,768	$12,275,447

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total**
Executive Director (1): The Executive Director is responsible for maximizing the organization's impact in the region by working to establish Teach For America's presence in the community, ensuring effectiveness of corps members, building a broad and sustainable base of financial support, and raising community awareness	100%	$115,000	$115,000

Managing Director of Program (1): The Managing Director of Program manages and develops the region's program team, ensuring that it achieves its student achievement, corps member retention and stewardship goals	100%	$71,858	$71,858
Development Manager (1): The Development Manager develops a diverse and sustainable local funding base to achieve the funding growth necessary to support the regional program.	100%	$53,501	$53,501
Program Director (3): Program Directors manage and develop a cohort of approximately 30 corps members to ensure that they achieve ambitious academic goals with their students. Note: One additional Program Director will be added each year during Years 2-4	100%	$55,233	$55,233
Director of Alumni Affairs: Responsible for mobilizing a network of alumni in the fields of education, policy, and political leadership, fostering leadership amongst alumni in Indiana, building external relationships and ensuring stewardship of the organization, and advancing alumni thinking.	100%	$68,905	$68.905
Manager of District Strategy: Responsible for strategic placement of corps members in school districts and managing relationships with school leaders and will likely be filled in 2011.	100%	$51,938	$51,938
Operations Associate: To be hired in the next couple months, the person who accepts this role will manage the operations of the regional team in a way that maximizes the team's effectiveness and enables the region to reach its ambitious goals.	100%	$42,469	$42,469
Regional Allocation of National Cost: Includes percentage of all national positions that support regional efforts in Indianapolis including national recruitment and selection directors, pre-service training managers, curriculum and training developers, alumni and program support managers, and many other centralized national positions (i.e. accounting, finance, legal, etc).	N/A	N/A	Y1: $210,644 Y2: $609,428 Y3: $1,031,151 Y4: $1,444,157

2) Fringe Benefits

Fringe benefits are estimated based on the salaries of Teach for America personnel.

Personnel	**Fringe Benefit Percentage**
Executive Director	19%

Managing Director of Program	19%
Development Manager	19%
Program Director	19%
Director of Alumni Affairs	19%
Manager of District Strategy	19%
Operations Associate	19%
Regional Allocation of National Cost	19%

3) Travel

Travel	**# Trips**	**$ per Trip**	**Total**
Travel to regional conferences, recruitment trips to interview candidates, and site visits to local schools to meet with corps members, sponsors, and partners. Travel costs increase each year to accommodate growth in staff and corps size ($80,440 in Year 1, $161,130 in Year 2, $196,037 in Year 3, and $230,701 in Year 4)	N/A	N/A	$668,308
Regional allocation of national expenses to support travel for national Recruitment Directors who interview corps members from around the country to teach in Indiana ($190,043 in Year 1, $418,361 in Year 2, $480,398 in Year 3, and $542,735 in Year 4)	N/A	N/A	$1,631,536

4) Equipment

N/A

5) Supplies

Category	**Cost**
Basic office supplies (e.g., printing, postage, etc.), marketing materials, professional development supplies ($17,251 in Year 1, $26,488 in Year 2, $38,355 in Year 3, and $49,982 in Year 4).	$132,074
Regional allocation of national marketing expenses and collateral ($54,938 in Year 1, $102,783 in Year 2, $127,909 in Year 3, and $152,786 in Year 4).	$438,417

6) Contractual

Product/Professional Service	**Cost**
Regional contractual costs ($9,800 in Year 1, $17,534 in Year 2, $23,130 in Year 3, and $28,641 in Year 4)	$79,106

Regional allocation of national contractual costs ($33,426 in Year 1, $53,809 in Year 2, $73,903 in Year 3, and $93,640 in Year 4)	$254,778

7) Training Stipends
N/A

8) Other

Category	Cost
Training materials, induction, orientation, and Summer Institute costs for new staff members ($1,340 in Year 1, $1,899 in Year 2, $2,940 in Year 3, and $3,959 in Year 4)	$10,138
Regional allocation of national Human Assets team, which functions as a centralized human resources department for local Teach for America offices ($6,174 in Year 1, $10,034 in Year 2, $13,678 in Year 3, and $17,259 in Year 4).	$47,145
Financial aid grants offered to corps members to help them relocate to a region to teach ($25,233 in Year 1, $38,686 in Year 2, $56,660 in Year 3, and $74,263 in Year 4).	$194,832
Research budget to conduct internal and external surveys regarding the effectiveness of both local corps members and staff ($10,089 in Year 1, $15,474 in Year 2, $22,664 in Year 3, and $29,705 in Year 4).	$77,932
Communications costs for long distance telephone calls to interview prospective candidates ($10,089 in Year 1, $15,474 in Year 2, $22,664 in Year 3, and $29,705 in Year 4).	$77,932
Regional allocation of national expenses to provide corps members with pre-service summer training, ongoing professional development, and support an alumni program ($218,257 in Year 1, $380,402 in Year 2, $484,159 in Year 3, and $594,083 in Year 4).	$1,703,087

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Indianapolis Teaching Fellows Program Expansion **Associated with Criteria:** (D)(3)(ii) **(Evidence for selection criterion (A)(2)(i)(d))**					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	$292,649	$395,311	$405,337	$415,665	$1,508,962
2. Fringe Benefits	$43,127	$73,656	$76,407	$77,623	$270,813
3. Travel	$9,560	$12,138	$12,745	$13,382	$47,825
4. Equipment	$0	$0	$0	$0	$0
5. Supplies	$13,897	$15,957	$16,754	$17,592	$64,200
6. Contractual	$63,678	$67,818	$70,065	$72,424	$273,985
7. Training Stipends	$236,080	$236,080	$236,080	$236,080	$944,320
8. Other	$3,000	$5,355	$5,623	$5,904	$19,882
9. Total Direct Costs (lines 1-8)	$661,991	$806,315	$823,011	$838,670	$3,129,987
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)	$661,991	$806,315	$823,011	$838,670	$3,129,987

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total**
Site Manager (1): The Site Manager will work on-site in the Indianapolis Public Schools district office and is responsible for ensuring the successful execution of the program. Specifically, the Site Manager is responsible for designing and implementing recruitment strategies that attract high-quality alternate-route teachers from diverse backgrounds to	100%	$84,965	$84,965

apply to teach in district schools, managing a rigorous selection process to ensure that individuals accepted into the program meet our high-quality standards, managing a high quality pre-service training institute and building effective relationships with district leaders, school administrators, and other key stakeholders within the community			
Recruitment and Selection Manager (1): The Recruitment and Selection Manager is responsible for the successful implementation of the recruitment plan as well as assisting the Site Manager in all aspects of the selection process. In addition, the Recruitment and Selection Manager manages all candidate correspondences and the program's day-to-day operations.	100%	$50,000	$50,000
Training and Resource Manager (1): **Years 2-4 only** The Training and Resource Manager is responsible for the successful planning, implementation and evaluation of the Pre-service Training Institute. In addition, the Training and Resource Manager is responsible for ongoing program administration, which is connecting Fellows in their first or second year of teaching to resources throughout the school year to ensure their success in the classroom.	100%	$64,927	$64,927
Ambassadors (5): Ambassadors are former program participants (Fellows) and/or experienced teachers who cultivate our highest quality candidates by accurately delivering Teaching Fellows programmatic and recruitment messages in a supportive and inspiring manner.	100%	$1,000	$5,000
Part-time Selectors (including pre-screeners) (28): Selectors are part-time employees who conduct full-day interviews on four or more Saturdays in the Winter/Spring of each year using the TNTP Teaching Fellows Selection Model. They will ultimately make recommendations on which candidates meet the model helping shape the cohort of teachers in Indianapolis.	100%	$805	$22,510
Institute Instructors (8): Institute Instructors work full-time during the five to six week summer Pre-service Training Institute. Institute Instructors facilitate a minimum of 60 hours of rigorous curriculum sessions and observe and give feedback to program participants (Fellows) throughout the summer training.	100%	$6,180	$49,440
Temporary Assistant (1): If needed, the program will hire a temporary assistant to aid in managing day-to-day program operations. Typical tasks include: filing applicant materials and assisting in mass mailings of recruitment materials to potential applicants.	100%	$3,000	$3,000

Lead Selector (1): The Lead Selector is responsible for managing the full-day interviews on four or more Saturdays in the Winter/Spring of each year using the TNTP Teaching Fellows Selection Model. Specifically, the lead selector prepares all candidate files the week prior to selection events, assists in facilitating the interview event, and manages the overall operations and logistics of interview events.	100%	$5,150	$5,150
Intervention Specialists (5): **Years 2-4 only** Intervention Specialists are effective current or former teachers who work with individual program participants (Fellows) for a cycle of targeted instructional coaching for Fellows in need of more resources once in the classroom. Intervention cycles include a total of five hours of observing the Fellow in his/her classroom, ten hours of debrief meetings and planning, four hours of mentor preparation outside of observations and meetings, and approximately one hour dedicated to a follow-up email and phone call approximately one week after the cycle end date.	100%	$3,000	$15,000
Central Support Team: In addition to the site-based staff in Indianapolis, TNTP has a Central Support Team of national staff whose time is shared across all of our contracts. This team provides critical support during development, launch and ongoing implementation. They assist with direct management, project start-up, staffing, training new staff, customizing our systems to meet the unique needs of each project site, and ongoing program support and troubleshooting. This central support team ensures a consistent standard of quality and accountability across all of our project sites. The staff members whose time is included in these cost include: • Site Advisors for Recruitment, Selection, Hiring, Operations, and Communications • Information Technology staff • Research and Evaluation staff	N/A	$10,000	$10,000
National Support and Specialist Staff: **Years 2-4 only** As a virtual organization, with project teams situated in school districts across the country, TNTP utilizes a proven model for contract staffing that relies on a core team of national experts who specialize in areas such as education policy, evaluation, program implementation, teacher recruitment, candidate selection, training, and teacher	N/A	$70,000	$70,000

certification. Individually, these specialists are among the nation's best thinkers in their respective areas of expertise. Collectively, they constitute a wellspring of knowledge, experience and skill that benefits the organization's programs across the country. The staff members whose time is included in these cost include: **Top leadership staff members**, who provide high-level project guidance and assistance to ensure the success of every program or initiative in which the organization engages. This includes: • Ariela Rozman, Chief Executive Officer • Tim Daly, President **Critical oversight staff members**, who oversee the launch, development and ongoing implementation of each project and who work closely with site-based staff to ensure the project meets its annual goals. This includes: • Layla Avila, Vice President - Teaching Fellows Programs • Ana Menezes, Partner – Teaching Fellows Programs			

Note: In FY 2011, the majority of the salary for the Training and Resource Manager and Intervention Specialists will be covered by an existing Transition to Teaching grant from the US Department of Education; therefore the personnel cost line reflects only partial cost for FY 2011 for these positions. This grant also covers part of National Staff Support and Specialist Staff costs. Note that this grant will end in September 2011.

2) Fringe Benefits

Personnel	**Fringe Benefit Percentage**
Site Manager (1)	33%
Recruitment and Selection Manager (1)	27%
Training and Resource Manager (1) Years 2-4 only	27%
Ambassadors (5)	11%
Part-time Selectors (including pre-screeners) (28)	11%
Institute Instructors (8)	11%

Temporary Assistant (1)	11%
Lead Selector (1)	11%
Intervention Specialists (5) Years 2-4 only	11%

3) Travel

Travel	**# Trips**	**$ per Trip**	**Total (Annual)**
Program Oversight Travel: Program oversight travel is essential to ensuring that each site can meet the recruitment and hiring goals it has set. TNTP has a central staff of experts in areas including technology, marketing, recruitment, screening and selection, pre-service training, staff training and evaluation who each dedicate time to this project and must fly-in to coordinate implementation, check-in throughout the program, and trouble-shoot. Rather than this project having additional personnel in each of these areas, it is far more cost effective to utilize central staff to support consistent program quality across our sites. In this way, each site receives support from an experienced team, without bearing the entire burden for their costs, as well as the support and learning of the organization as a whole. TNTP has a consistent record of meeting the goals for teachers hired that it sets in each program in a high-quality way and those goals and program quality can only be achieved with this level of oversight and the requisite travel costs. We estimate approximately 14 Program Oversight trips a year for: • Recruitment oversight; • Selection and screening training and support; • Pre-service training implementation; • Placement/hiring support • Regular visits by TNTP Partner to meet with district partners and key stakeholders as well as overall program oversight Estimates are based on the following: • $250 transportation costs (generally airfare) • $250 lodging costs (generally 2-3 nights) • $50 per diem / day (meals)	14	$643	$9,000
Recruitment and Selection Travel: Recruitment and Selection Travel includes regional trips to area universities to recruit candidates, career fairs and mileage to and from interview events for program staff. Estimates are based on the following: • $100 average mileage reimbursement • $50 per diem	17	$150	$2,560

4) Equipment
N/A

5) Supplies

Category	Cost
General Program Printing: **Years 2-4 only** Includes program printing for general day-to-day operations, printing of training materials for part-time staff (Ambassadors, Intervention Specialists) as well as materials for potential candidates.	$1,680
Postage: Includes postage for recruitment mailings, candidate correspondences, and training materials.	$1,680
Office Supplies: Includes general program office supplies, including file folders, printer cartridges, paper, etc.	$1,679
Pre-service Training Supplies: Supplies are used to support the summer pre-service training that occurs once a candidate has been accepted into the program. Include: binders, bulletin board paper, and basic supplies for the training office.	$2,100
Pre-service Training Printing: Includes training manuals and other materials candidates receive during the Pre-service Training.	$8,057

Note: Approximately one-third of supply costs are covered by an existing Transition to Teaching grant from the US Department of Education; therefore the supplies cost line reflects only partial cost for FY 2011. Note that this grant will end in September 2011.

6) Contractual

Product/Professional Service	Cost
Cooperating/mentor teachers: The program will hire a team of Cooperating Teachers to host program participants (Fellows) in their summer school classroom during the Pre-service Training Institute (approximately 4-5 weeks). Cooperating Teachers are experienced teachers who provide informal feedback and model classroom instruction to Fellows.	$22,833
Print and Internet Ads: Strategic use of media advertising has proven to be a powerful tool in our recruitment campaigns in terms of introducing people in other careers to become interested in a teaching position. These costs include print ads, radio, and internet ads.	$30,000
Marketing Collateral: Strategic use of marketing materials has proven to be a powerful tool in our recruitment campaigns in terms of introducing people in other careers to become interested in a teaching position. These costs include brochures, flyers, poster and other candidate	$1,500

materials.	
Graphic and Web Design: The program's website is the primary method that candidates learn about the program. The website also houses the applicant portal, which allows candidates to apply to the program online and monitor their program status throughout the application process. These costs include web and graphic design as well as general content maintenance of the program's website.	$3,000
Web Hosting: Includes annual fees associated with storage, connectivity and services necessary for the program's website.	$420
Teacher Track Technology: Includes launch and ongoing maintenance of The New Teacher Project's proprietary, program specific online application and applicant tracking system ('Teacher Track').	$5,875

7) Training Stipends

Stipend	**Cost**
Pre-service Training Stipends: Pre-service stipends are issued to program participants who successfully complete the Pre-service training to help with their transitional costs. Pre-service training includes at least 60 hours of rigorous curriculum sessions in addition to approximately 75 hours of practice teaching in summer school classrooms in Indianapolis. Includes stipends of approximately $2,000 per participant (plus processing and taxes). We build in approximately 14 additional stipends to account for attrition (for a total of 114 stipends), which we believe is better to occur during the summer pre-service training than during the school year. Training stipends are paid directly to program participants who successfully complete the Pre-Service training, not to The New Teacher Project.	$258,789

8) Other

Category	**Cost**
Information and Cultivation Sessions: Information and cultivation events form part of the recruitment strategy to attract and retain high-quality candidates. Includes materials for information sessions, open houses, merchandise incentive giveaways, recruitment folders and brochure printing.	$2,200
Selection and Training Events: Candidates who have been pre-screened in attend day-long selection events to be evaluated and placement events to meet principals and human resources staff to secure positions in the partner districts. Includes candidate materials for interview events and training materials for part-time staff.	$800

Institute Events/Professional Development: **Years 2-4 only** Institute events include our opening and closing ceremonies, which involve space rental, janitorial costs for the event, as well as supplies for the event (for instance, we may decide to produce a t-shirt for the Fellows as part of the event).	$2,100

Note: The Institute Events/Professional Development costs are covered by an existing Transition to Teaching grant from the US Department of Education; therefore the Institute Events/Professional Development cost line only reflects cost for FY 2012-FY2014. Note that this grant will end in September 2011.

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Woodrow Wilson Indiana Teaching Fellows Program Expansion **Associated with Criteria:** (D)(3)(ii) **(Evidence for selection criterion (A)(2)(i)(d))**					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	$310,350	$310,350	$310,350	$310,350	$1,241,400
2. Fringe Benefits	$87,330	$87,330	$87,330	$87,330	$349,320
3. Travel	$18,000	$18,000	$18,000	$18,000	$72,000
4. Equipment	$0	$0	$0	$0	$0
5. Supplies	$0	$0	$0	$0	$0
6. Contractual	$18,000	$68,000	$280,500	$280,500	$647,000
7. Training Stipends	$0	$0	$0	$0	$0
8. Other	$1,075,000	$1,055,000	$4,155,000	$6,270,000	$12,555,000
9. Total Direct Costs (lines 1-8)	$1,508,680	$1,538,680	$4,851,180	$6,966,180	$14,864,720
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)	$1,508,680	$1,538,680	$4,851,180	$6,966,180	$14,864,720

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total**
President (1): Provides general oversight to the program and will be involved with guiding program expansion efforts	10%	$385,000	$38,500
Executive Assistant (1):	10%	$75,000	$7,500
Senior Vice President for Programs (1): Responsible for leading the implementation of the program expansion efforts	15%	$300,000	$45,000

Senior Program Officer (1): Responsible for design and implementation of recruitment strategies and building effective relationships with district leaders, school administrators and other key stakeholders within the community.	35%	$135,000	$47,250
Program Officer (1): Responsible specifically for the design and implementation of an expanding math immersion program	15%	$86,000	$12,900
Program Associate (2): Support recruitment efforts and provide direct continuing support to the fellows.	75%	$60,000	$45,000
Administrative Assistant (1): Provides general administrative support to the program.	20%	$40,000	$8,000
Budget Officer (1): Develops and monitors the program budget, as well as regular financial reports.	10%	$110,000	$11,000
Director of IT (1): Monitors and oversees the website, online fellowship application system, and fellowship application processing.	25%	$80,000	$20,000
Manager of Fellowship Applications (1): Responsible for processing fellowship applications.	40%	$45,000	$18,000
Application Processor (1): Provides support to the Manager of Fellowship Applications.	50%	$15,000	$7,500
Vice President of Communications (1): Develops online materials on the fellowship programs, assists in creation of publications and recruitment materials, and interfaces with the media to represent the programs	20%	$175,000	$35,000
Communications Associate (1): Provides support to the VP of Communications, especially in the area of online communications	35%	$42,000	$14,700

2) Fringe Benefits

Fringe benefits are estimated based on the salaries of Woodrow Wilson National Fellowship Foundation personnel.

Personnel	**Fringe Benefit Percentage**
President (1)	15%
All other personnel (12)	30%

3) Travel

Travel	**# Trips**	**$ per Trip**	**Total (Annual)**

Math Immersion Program Oversight Travel: We estimate a total of 40 program oversight trips throughout the life of the project for: program planning and development; in-state recruitment of fellows; regular visits with campus program coordinators and district partners to develop curriculum and school partnerships; program evaluation. Estimates for each trip are based on: $700 for transportation, $150 for 1 night of lodging, and $50 per diem for meals	40 (10 trips per year)	$900	$36,000
Northwest Indiana (Gary) Program Expansion Oversight Travel: We estimate a total of 40 program oversight trips throughout the life of the project for: program planning and development; in-state recruitment of fellows; regular visits with campus program coordinators and district partners to develop curriculum and school partnerships; program evaluation. Estimates for each trip are based on: $700 for transportation, $150 for 1 night of lodging, and $50 per diem for meals	40 (10 trips per year)	$900	$36,000

4) Equipment
N/A

5) Supplies
N/A

6) Contractual

Product/Professional Service	**Cost**
Math Immersion Program Assessment and Evaluation Services: Assess the focus and preparedness of the 90 fellows in 3 cohorts from Years 2-4 ($50,000 per year).	$150,00
Northwest Indiana (Gary) Program Assessment and Evaluation Services: The program will be assessed by an external evaluator with respect to three specific criteria: the academic success of the fellows' students; the persistence of the fellows in the teaching profession (as compared to other teachers in Indiana); and the persistence of the curricular reforms on the Gary-area campuses. The assessments will evaluate all 40 fellows in 2 cohorts from Years 3-4 ($62,500 per year).	$125,000
Continuation of Woodrow Wilson Fellowship Program Assessment and Evaluation Services: The program will be assessed by an external evaluator with respect to three specific criteria: the academic success of the fellows' students; the persistence of the fellows in the teaching profession (as compared to other teachers in Indiana); and the persistence of the curricular reforms on the four original campuses currently supported by the program. The assessments will evaluate 40 fellows in 2 cohorts from Years 3-4 ($150,000 per year).	$300,000

Print and Internet Advertising: These expenses include the cost of advertising via print ads, radio spots, and internet ads on social networks and job search sites for all 3 programs (Math Immersion, Northwest Indiana expansion, . Also includes other media production, such as recruitment videos. These expenses total $9,000 per year for all 4 years of the project.	$72,000

7) Training Stipends
N/A

8) Other

Category	**Estimated Cost**
Math Immersion Program Fellowships: These funds enable the appointment of three cohorts, consisting of 30 Fellows each, to two designated Indiana campuses with Woodrow Wilson Indiana Teaching Fellowship programs. The $15,000 fellowship is paid directly to the fellow and funds the costs associated with participating in the one-semester immersion program (tuition, books, living expenses, university fees, etc.). Provides $15,000 per fellow for a total of 90 fellows from Years 2-4.	$1,350,000
Math Immersion Program Recruitment: Recruitment efforts for the math immersion program will be highly specialized to reach those candidates who would be eligible for this program: college graduates/seniors who are interested in teaching mathematics and have some prior mathematics training, such as a mathematics minor or a major in a related field (such as business or engineering). Provides $75,000 for each of the 3 cohorts from Years 2-4).	$225,000
Math Immersion Program Planning and Enrichment Grant: These matched funds would be awarded to the two designated universities ($250,000 each) during the first grant year to facilitate development of the math immersion program, and might be used for such purposes as hiring new faculty and providing release time to faculty, thereby freeing faculty from teaching one of more of their current courses in order to develop new courses and new approaches to teacher preparation.	$500,000
Math Immersion Program Mentoring: This proposal includes specialized mentoring that will specifically address the challenges of teaching mathematics in high-need schools ($2,000 per fellow for 90 fellows in all 3 cohorts).	$180,000
Northwest Indiana (Gary) Program Fellowships: These funds enable the appointment of two cohorts, consisting of 20 Fellows each, to a new campus near Gary, IN. Fellowship payments to the 2012 cohort will be made in 2012-2013 (Year 3) and fellowship payments to the 2013 cohort will be made in 2013-2014 (Year 4). The $30,000 fellowship is paid directly to the Fellow and funds the costs associated with attaining a graduate degree in education (tuition, books, living expenses, university fees, etc.).	$1,200,000
Northwest Indiana (Gary) Program Recruitment: Recruiting qualified candidates for STEM teaching positions is a significant challenge, driven primarily by the better-	$300,000

paying, higher-prestige employment opportunities typically open to such individuals. In order to successfully recruit these high-caliber candidates, diverse strategies must be employed and would include such initiatives as targeted mailings of printed materials (posters, postcards) and emails; in-person recruitment events; and personal invitations to rising seniors with strong STEM backgrounds to apply to participate ($150,000 per cohort).	
Northwest Indiana (Gary) Program Planning and Enrichment Grant: These matched funds would be awarded to the university during the first grant year to facilitate program development, and might be used for such purposes as hiring new faculty, purchasing relevant equipment, and providing release time to faculty, thereby freeing faculty from teaching one of more of their current courses in order to develop new courses and new approaches to teacher preparation.	$500,000
Northwest Indiana (Gary) Program Mentoring: This proposal includes specialized mentoring that will specifically address the challenges of teaching mathematics in high-need schools ($8,000 per fellow for 40 fellows in 2 cohorts).	$320,000
Woodrow Wilson Fellowships: These funds enable the continuation of the Woodrow Wilson Indiana Teaching Fellowship program through the appointment of three additional cohorts, consisting of 60 Fellows each and distributed among the four universities with whom the Foundation currently partners. Provides $30,000/Fellow for three cohorts of 60 Fellows each.	$5,400,000
Woodrow Wilson Fellows Recruitment: Recruiting qualified candidates for STEM teaching positions is a significant challenge, driven primarily by the better-paying, higher-prestige employment opportunities typically open to such individuals. Provides $380,000 for each of the 3 cohorts.	$1,140,000
Woodrow Wilson Fellows Mentoring: This proposal includes specialized mentoring that will specifically address the challenges of teaching mathematics in high-need schools ($8,000 per fellow for 180 fellows in 3 cohorts).	$1,440,000
General office and program expenses: Provides funding for costs associated with office maintenance, technical support, hiring, recruiting, and other operating costs ($75,000 per year).	$75,000

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Access to Great Teachers and Leaders – Establishing the *Governor's Teaching Corps for Excellence* and *Lead Indiana* **Associated with Criteria:** (D)(3)(i), (D)(3)(ii), (D)(5)(i) **(Evidence for selection criterion (A)(2)(i)(d))**					
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	$2,295,000	$2,340,000	$2,385,000	$2,430,000	$9,450,000
9. Total Direct Costs (lines 1-8)	$2,295,000	$2,340,000	$2,385,000	$2,430,000	$9,450,000
10. Indirect Costs*	$142,290	$145,080	$147,870	$150,660	$585,900
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)	$2,437,290	$2,485,080	$2,532,870	$2,580,660	$10,035,900
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.					

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

N/A

2) Fringe Benefits

N/A

3) Travel

N/A

4) Equipment
N/A

5) Supplies
N/A

6) Contractual
N/A

7) Training Stipends
N/A

8) Other

Category	Estimated Cost
Governor's Teaching Corps Fellowship Awards: Each teacher that joins the corps will receive a one-time disbursement of $30,000 for a minimum of 3 years of service in a high-poverty and/or high-minority school. The total requested funding amount would support twenty-five awards each year from 2010 to 2014 ($750,000 x 4 years), resulting in a total corps size of 100 teachers.	$3,000,000
Lead Indiana Fellowship Awards: Each principal that joins the Lead Indiana program will receive a one-time disbursement of $75,000 for a minimum of 5 years of service in a high-poverty and/or high-minority school. The total requested funding amount would support twenty-five awards each year from 2010 to 2014 ($1,500,000 x 4 years), resulting in a total program size of 80 principals.	$6,000,000
Governor's Teaching Corps Professional Development: To support the objective of creating a go-to pool of highly effective, expert teachers in the state, the Governor's Teaching Corps program will provide opportunities for corps members to receive valuable, on-going professional development. The total requested funding amount would provide an annual $1,000 stipend for each corps member to attend valuable professional development workshops and events developed by the program staff or offered by an external organization ($1,000 x 25 corps members in 2010-11; $1,000 x 50 corps members in 2011-12; $1,000 x 75 corps members in 2012-13; $1,000 x 100 corps members in 2013-14).	$250,000
Lead Indiana Professional Development: To support the objective of developing and enhancing the leadership skills of Indiana's most highly effective principals, the Lead Indiana program will provide opportunities for principal-fellows to receive valuable, on-going professional development. The total requested funding amount would provide an annual $1,000 stipend for each principal-fellow to attend valuable professional development workshops and events developed by	$200,000

the program staff or offered by an external organization ($1,000 x 20 principal-fellows in 2010-11; $1,000 x 40 principal-fellows in 2011-12; $1,000 x 60 principal-fellows in 2012-13; $1,000 x 80 principal-fellows in 2013-14).	

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** *Head of the Class* Accountability System for Teacher and Principal Preparation Programs **Associated with Criteria:** (D)(4)(i), (D)(4)(ii) **(Evidence for selection criterion (A)(2)(i)(d))**					
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	$40,000	$0	$0	$0	$0
5. Supplies	$0	$0	$0	$0	$0
6. Contractual	$250,000	$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)	$290,000	$0	$0	$0	$0
10. Indirect Costs*	$17,980	$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)	$307,980	$0	$0	$0	$0
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.					

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

N/A

2) Fringe Benefits

N/A

3) Travel

N/A

4) Equipment

Equipment	# of Units	Cost per Unit	Total
Infrastructure upgrades for the Head of the Class data system and online reporting tool, including backup network solution switches, increased data storage capacity, license, and cards (Year 1 only)	N/A	N/A	$40,000

5) Supplies
N/A

6) Contractual
Note: The following costs are estimated and the IDOE will follow standard Indiana Department of Administration contracting procedures, including requirements for vendor bidding.

Product/Professional Service	Cost
Data system and online reporting tool: IDOE will contract with an experienced vendor to develop the required data system and online reporting tools to support the Head of the Class accountability system for teacher and principal preparation programs. Specifically, the vendor will be required to develop a system that can do the following: • Report performance data broken out by each individual teacher education program (e.g., elementary, secondary English, etc.) at each IHE in Indiana • Allow side-by-side views of the data in order to compare the performance of different teacher education programs • Report overall student achievement data for new teachers from each teacher education program Based on previous professional services contracts of a comparable nature, the IDOE estimates that contracting with an experienced vendor for the activities described above will cost $250,000 during the fall of 2010 (Year 1). Ongoing maintenance and technical support for the system is anticipated to be minimal and therefore can be fulfilled by the IDOE information technology employees.	$250,000

7) Training Stipends
N/A

8) Other
N/A

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Professional Development for Math and Science Teachers **Associated with Criteria:** (D)(5)(i), (E)(2)(ii), Priority 2 **(Evidence for selection criterion (A)(2)(i)(d))**					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	$144,000	$149,760	$155,750	$161,980	$611,491
2. Fringe Benefits	$50,680	$52,707	$54,815	$57,008	$215,211
3. Travel	$10,000	$10,000	$10,000	$10,000	$40,000
4. Equipment	$0	$0	$0	$0	$0
5. Supplies	$275,000	$275,000	$275,000	$275,000	$1,100,000
6. Contractual	$640,000	$640,000	$640,000	$640,000	$2,560,000
7. Training Stipends	$1,230,000	$1,230,000	$1,230,000	$1,230,000	$4,920,000
8. Other	$2,043,750	$1,293,750	$1,293,750	$1,293,750	$5,925,000
9. Total Direct Costs (lines 1-8)	$4,393,430	$3,651,217	$3,659,315	$3,667,738	$15,371,700
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)	$4,393,430	$3,651,217	$3,659,315	$3,667,738	$15,371,700

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total**
I-STEM Resource Network Executive Director (1): The I-STEM Executive Director is responsible for maintaining advocacy for the continuation and support of the projects and maintaining the governing structure of I-STEM allowing for this statewide initiative to continue.	10%	$70,000	$7,000

I-STEM Resource Network Director of Operations (1): The I-STEM Director of Operations oversees day-to-day operations on the network and would have direct responsibility for overseeing the operations on these initiatives.	10%	$70,000	$7,000
Mathematics Director (1): The Mathematics Director will be responsible for the overall implementation and management of the program in Indiana schools. The Mathematics Director would lead the process for school recruitment, ongoing training and support and monitoring of program implementation in conjunction with the Indiana Department of Education. The Mathematics Director should be a self-motivated entrepreneur who understands policy, national trends in mathematics education, education at the ground level, systems change, and management.	100%	$65,000	$65,000
Science Director (1): The Science Director will be responsible for the overall implementation and management of the program in Indiana schools. The Science Director would lead the process for school recruitment, ongoing training and support and monitoring of program implementation in conjunction with the Indiana Department of Education. The Science Director should be a self-motivated entrepreneur who understands policy, national trends in science education, education at the ground level, systems change, and management.	100%	$65,000	$65,000

** Salary and fringe benefit projections for these positions include a 4% annual salary increase.

2) Fringe Benefits

Fringe benefits are estimated based on the salaries of I-STEM personnel.

Personnel	**Fringe Benefit Percentage**
I-STEM Resource Network Executive Director	41%
I-STEM Resource Network Director of Operations	33%
Mathematics Director	35%
Science Director	35%

3) Travel

Travel	**# Trips**	**$ per Trip**	**Total**

Annual Conference: The Annual Conference provides the opportunity for project managers, districts and schools, as well as other stakeholders, to learn more about the program, both its elements and how to put them into practice. Cost includes airfare, 2 nights lodging, meals, substitute teachers, and transportation costs. Travel for Mathematics Director as he/she provides on-site technical assistance to the program schools. Travel for Science Director as he/she provides on-site technical assistance to the program schools. National Conferences: Attendance at national conferences like NCTM, NSTA, or ITEA provides the opportunity for dissemination and investigation of effective practices to keep the Indiana STEM program aligned with current research and practices for student results. Cost includes airfare, 2 nights lodging, meals, and transportation costs.	N/A	N/A	$10,000 (annual)

4) Equipment
N/A

5) Supplies

Category	**Total**
Mathematics Curricular Materials Training Modules ($168,750 x 4 years)	$675,000
Science Curricular Materials Training Modules ($68,750 x 4 years)	$275,000
Instructional Supplies printing ($31,250 x 4 years)	$125,000
Office Supplies ($6,250 x 4 years)	$25,000

6) Contractual

Product/Professional Service	**Cost**
Training Facilitators – Paid on a daily rate, these are the individuals who facilitate the professional development workshops and ongoing support for teachers and administrators throughout the course of their training. Cost assumes 20 teachers per section with 2 facilitators paid $500 per day becomes $50 per teacher participating per day. Plus 800 total in classroom follow up days (800 x $500 x 4 years)	$2,400,000
Evaluation Specialist – to evaluate the success of the programs as they progress and to make recommendations on improvements and changes. Costs estimates are based upon $40,000 per year for 4 years.	$160,000

7) Training Stipends

Training Stipends	Total
Science professional development stipends would be paid to teachers who participate in two five day workshops series over two consecutive summers along with professional development during the school year to assess implementation. Training would focus on research-based, inquiry-centered science that utilizes note booking to improve reading, writing, and communication skills. 1600 teachers x 5 days x 2 years x $100 per day (Years 1-4)	$1,600,000
Math professional development stipends would be paid to teachers who participate in two eight day workshops series over two consecutive summers along with professional development during the school year to assess implementation. PD will focus on building teacher content area knowledge and ability to develop student conceptual understanding of mathematics. Over 4 years approximately 1500 teachers would participate in this training opportunity. 1500 teachers x 8 days x 2 years x $100 per day (Years 1-4)	$2,400,000
Project Lead the Way professional development – This 2 week training provides teachers with the in-depth knowledge required to teach one of the many PLTW engineering and Biomedical sciences course. Each year 100 teachers would receive training for a new course. $2300 per course x 100 x 4 years (Years 1-4)	$920,000

8) Other

Category	Cost
Tuition credit for courses related to developing STEM teacher experts in Indiana. These teachers would also serve as teacher leaders in their building or district for that subject area (250 teachers x 8 courses x $1000 per course over 4 years; $500,000 annually).	$2,000,000
Facilities and Technology Rental (for all 4 years; $502,500 annually).	$2,010,000
Sustenance for workshops (for all 4 years; $130,650 annually).	$522,600
Distribution Facility initial setup costs – costs involved in setting up materials distribution and refurbishment of mathematics and science materials used by teachers and students in the classroom (Year 1 only).	$750,000
Development of curricular materials analysis materials and workshops to help schools select research-based curricular STEM materials (for all 4 years; $12,500 annually).	$50,000
I-STEM Network Support maintain the functioning and operation of the partnerships that support STEM professional development in Indiana (for all 4 years; $148,100 annually)	$592,400

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
N/A

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** Teacher Advancement Program (TAP) **Associated with Criteria:** (D)(5)(i) **(Evidence for selection criterion (A)(2)(i)(d))**					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	$4,146,000	$4,146,000	$4,146,000	$4,146,000	$16,584,000
2. Fringe Benefits	$1,135,800	$1,135,800	$1,135,800	$1,135,800	$4,543,200
3. Travel	$285,000	$285,000	$285,000	$285,000	$1,140,000
4. Equipment	$0	$0	$0	$0	$0
5. Supplies	$0	$0	$0	$0	$0
6. Contractual	$195,000	$170,000	$170,000	$170,000	$705,000
7. Training Stipends	$0	$0	$0	$0	$0
8. Other	$320,725	$2,320,725	$2,320,725	$2,320,725	$7,282,900
9. Total Direct Costs (lines 1-8)	$6,082,525	$8,057,525	$8,057,525	$8,057,525	$30,225,100
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)	$6,082,525	$8,057,525	$8,057,525	$8,057,525	$30,225,000

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total**
TAP Director (1): The TAP Director will be responsible for the overall implementation and management of the TAP System in Indiana schools. The TAP Director would lead the process for school selection, ongoing training and support and monitoring of program implementation in conjunction	100	$100,000	$100,000

with the Indiana Department of Education. The TAP Director should be a self-motivated entrepreneur who understands policy, education at the ground level, systems change, and management.			
Executive Master Teacher (1): One educator will be hired as the Executive Master Teacher to devote 100 percent of their time to assume responsibility for the daily implementation in a specified group of Indiana TAP Schools. The Executive Master Teacher will attend the national TAP trainings and help the Indiana TAP Director build capacity among the school-level master teachers. Executive Master Teachers will spend 90 percent of their time in the schools providing on-going support for the master and mentor teachers.	100	$75,000	$75,000
Master Teacher (50): The master teacher will be responsible for observing teachers in class, providing ongoing professional support, developing individualized professional development, conducting teacher evaluations, and helping to set school achievement goals. The cost of the master teacher includes a replacement teacher ($50,000/position), since master teachers are completely released from their own classrooms. It also includes a master teachers salary augmentation ($10,000) and pay for additional days of work (10days/master teacher at $222/day = $111,000).	100	$62,220	$3,111,000
Mentor Teacher (100): The mentor teacher will be responsible for observing teachers in class, providing ongoing professional support, developing individualized professional development, conducting teacher evaluations, and helping to set school achievement goals while continuing to teach full-time in his/her own classroom. The mentor salary augmentation is $5,000 per year.	100%	$500,000	$500,000
Substitute Time (up to 4,000 potential days for substitute teachers with 25 schools + 32 cluster days per year and an average cluster size of 5 teachers): Substitute Time **may** be needed to cover Planning Committee release time and master and mentor teacher-training time in the planning year. In subsequent years, substitutes may be needed to provide release time for mentor teachers, or for conference attendance, etc. However, NIET encourages and provides technical assistance for schools to configure their schedule to avoid utilizing substitute teachers.	100%	$90/day	$360,000

2) Fringe Benefits

Fringe benefits are estimated based on the salaries of TAP personnel.

Personnel	Fringe Benefit Percentage
TAP Director	30%
Executive Master Teacher	30%
Master Teacher	30%
Mentor Teacher	30%
TOTAL	

3) Travel

Travel	# Trips	$ per Trip	Total (Annual)
Annual National TAP Conference: The annual national TAP Conference provides the opportunity for states, districts and schools, as well as other stakeholders, to learn more about TAP, both its elements and how to put them into practice. The goals of the Conference are to promote collaboration and sharing of experiences among current TAP schools, to provide strategies to improve TAP implementation, to increase national awareness of TAP for people seeking to improve teacher quality and student achievement in their schools, and to provide training opportunities for current TAP teachers. Cost includes airfare, 2 nights lodging, meals, and transportation costs.	225 people attending (9 people per school)	$1,190	$267,750
TAP Director & Executive Master Teacher will require 4 weeks of out of state training with NIET and other TAP State personnel. (The cost includes a plane ticket, hotel, and meals)	(4 weeks of travel per person	$1,500	$12,000
Travel for TAP Director as he/she provides on-site technical assistance to the TAP schools.	6500 miles per year	$0.50 per mile	$3,250
Travel for Executive Master Teacher to provide on-site technical assistance to the TAP schools.	4000 miles annually	$0.50 per mile	$2,000

4) Equipment
N/A

5) Supplies
N/A

6) Contractual

Product/Professional Service	Cost
Value Added Calculations for TAP Schools: Cost of value-added calculations for school-level student achievement for TAP schools and control schools for research program. (~$2 per student)	$37,500
Value-Added Calculations for Control Schools: To conduct the TAP evaluation research, each TAP school must be compared to other similar schools not doing TAP. Control schools are selected based on demographic and socioeconomic factors, and schools taking the same battery of standardized tests as TAP schools. TAP schools must cover the cost of the control schools value-added calculations.	$37,500
Value-Added Calculations for Teachers: Cost of value-added calculations for classroom-level student achievement for TAP schools and control schools for research program. (~$25 per teacher)	$20,000
Comprehensive Online Data Entry: This system enables principals to input and archive teacher evaluation data and generate individual summative evaluation scores for teachers. This is a Web-based system. ($2000 per school)	$50,000
NIET Liaison and Support: NIET will provide training, technical assistance, and/or senior level consultants for successful TAP implementation for Indiana and to the Indiana TAP Director and/or schools. The fixed daily rate. After Year 1, the allocation drops to $25,000.	$50,000

7) Training Stipends
N/A

8) Other

Category	Estimated Cost
Performance Awards: The TAP System compensates teachers for the growth in student achievement at the classroom and school levels, as well as compensates them for high performance as assessed during classroom evaluations. ($2500 per teacher and based on 800 teachers)	$2,000,000
Startup Workshops: Each year prior to the opening of school, all faculty members in TAP schools participate in a workshop led by the TAP leadership team. The focus of this workshop in the first year of TAP operations is to prepare all teachers in the school for participating in TAP by initiating the master and mentor teachers as school leaders; activating the teacher professional growth cluster groups; and coordinating individual, cluster group and school-wide professional growth plans. In the second year, the focus is on preparing for teacher evaluations. Teachers review	$177,600

the TAP Teaching Skills, Knowledge and Responsibility Standards, including the TAP Instructional Rubrics, and have an opportunity to rate themselves and other teachers. (Teacher daily rate calculated at $222/day/teacher).	
Supplementary Teacher Training; Local TAP Summer Institute: Each TSI's goal is to provide intensive training for leadership team members, focusing on detailed elements of TAP. The focus of each TSI is determined by needs identified at TAP schools nationwide. Participants use thoroughly developed examples that link the processes of TAP implementation to instructional practices, focusing on improved student achievement. Participants leave TSI with materials to take back to their schools and utilize in support of ongoing applied professional growth. Sessions are led by NIET staff, as well as expert master teachers and principals from effective TAP schools. TSIs are conducted in various regions across the country. Based on a $225 registration/materials fee and 225 participants (the 9 member leadership team from each school).	$50,625
Supplementary Teacher Training; National TAP Conference: The annual national TAP Conference provides the opportunity for states, districts and schools, as well as other stakeholders, to learn more about TAP, both its elements and how to put them into practice. The goals of the Conference are to promote collaboration and sharing of experiences among current TAP schools, to provide strategies to improve TAP implementation, to increase national awareness of TAP for people seeking to improve teacher quality and student achievement in their schools, and to provide training opportunities for current TAP teachers. Based on 225 attendees (the 9 member leadership team from each school) with a $300 registration fee.	$67,500
Access to National TAP Training Portal: The TAP Training Portal has professional development materials all available from a central, web-based location. Schools may use the portal for training and certification of teacher evaluators as well as a source of professional development materials. ($1000 per school)	$25,000

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
See project-level budget table above.

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** New Teacher Center Induction Program **Associated with Criteria:** (D)(5)(i) **(Evidence for selection criterion (A)(2)(i)(d))**					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	$714,000	$903,000	$959,000	$1,048,000	$3,624,000
2. Fringe Benefits	$214,000	$271,000	$288,000	$314,000	$1,087,000
3. Travel	$56,900	$149,600	$210,800	$210,800	$628,100
4. Equipment	$47,000	$3000	$3000	$3000	$56,000
5. Supplies	$18,700	$18,700	$18,700	$18,700	$74,800
6. Contractual	$2500	$7500	$8000	$8000	$26,000
7. Training Stipends	$0	$0	$0	$0	$0
8. Other	$990,400	$3,135,900	$4,352,900	$4,354,900	$12,834,100
9. Total Direct Costs (lines 1-8)	$2,043,500	$4,488,700	$5,840,400	$5,957,400	$18,330,000
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)	$2,043,500	$4,488,700	$5,840,400	$5,957,400	$18,330,000

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total (4 year total)**
NTC Director (1): Will supervise all aspects of NTC program delivery and collaborate with IDOE, oversee the regional programs, make budget and staffing decisions, and will be the central point of communication with NTC	100%	$110,000	$473,000

Santa Cruz, program participants, and state and regional stakeholders.			
NTC Liaison/Support (1): Will provide consult and support to INTC Director, build statewide capacity within state and districts, provide policy, program, and operational guidance. Total of 1 FTE in Year one will be provided by a number of out of state NTC senior staff, incl. Great Lakes Regional Director.	100% 75% 50% 50%	$110,000 $86,000 (yr 2) $61,000 (yr 3) $63,000 (yr 4)	$320,000
Asst State Director (1): Will coordinate regions, oversee regional directors, contribute to policy work	100%	$95,000	$410,000
Project Administrator/Manager (1): Oversees administrative aspects of program delivery as well as office set-up, accounting, communications, and operations.	100%	$50,000	$216,000
Project Assistant (1): Admin support for production of materials, travel, events, day-to-day operations	100%	$35,000	$152,000
Program Directors (2): Will direct program implementation in 3 IN regions: greater Indianapolis, NE IN, NW IN.	50% 100% 100% 100%	$90,000 $189,000 $198,000 $208,000	$685,000
NTC Consultant to Indianapolis Public Schools Technical assistance re mentoring program implementation and professional development	50% 50% 50% 25%	$45,000 $47,000 $50,000 $26,000	$168,000
Data Systems Manager (1) Sets up system for data managements, works with districts to collect data on beginning teachers and their students (relating to teacher retention, teacher effectiveness, and student achievement—see proposal)	100% 100% 150% 150%	$75,000 $79,000 $124,000 $129,000	$407,000
Home Office Tech/Admin Support (1): Coordinate data system input into central data base, respond to data issues from IN employees	20%	$11,000 $12,000 $13,000 $14,000	$50,000
NTC Professional Developer/Trainer (1): Works with IPS Consultant to conduct Mentor Academies, Info sessions, Induction Institute, Professional Development	50% 50% 50% 25%	$45,000 47,000 50,000 26,000	$168,000
NTC Statewide Tech Assistance Provider (1): Works with Director to extend program out across school districts statewide	0% 100% 100% 200%	$0 $90,000 $95,000 $198,000	$383,000

Online Mentoring: For scattered schools in bottom 5% that cannot be served practically by one-to-one mentoring, online content mentoring will be provided in math and science, Grades 6-12. Estimate 40 beginning teacher per year @ $1200/year.	N/A	$48,000/yr	$192,000

2) Fringe Benefits
Fringe benefits are estimated based on the salaries of NTC personnel.

Personnel	**Fringe Benefit Percentage**	**Actual Amount**
Standard fringe allowance for all NTC employees is average of all benefits, including health insurance	30%	$214,000 Year 1 $271,000 Year 2 $288,000 Year 3 $314,000 Year 4

3) Travel

Travel	**# Trips**	**$ per Trip**	**Total**
Greater Indianapolis Mentor Travel: Travel to attend Mentor Forums, other professional development. Costs calculated based on 8 mentors driving 4,000 miles @ $.50/mile in Year 1 = $16,000; in Years 2-4, costs based on 16 mentors driving 4,000 miles @ $.50/mile = $32,000 per year.	4,000 miles/year by car	$0.50 / mile	$112,000
Lowest 5% Schools Mentor Travel: Travel to attend Mentor Forums and other professional development. Costs calculated based on 13 mentors driving 6,000 miles @ $.50/mile in Year 2 ($39,000); in Years 3-4, 25 mentors driving 6,000 miles @$.50/mile = $75,000 per year.	6,000 miles/year by car	$0.50 / mile	$189,000
Mentor Academies: four annual 3-day training sessions ($27,600 in Year 2, $52,800 in Years 3-4)	4 per year x 3 years	$6,900 (Year 2) $13,200 (Years 3-4)	$133,200
Travel for Director and Asst. Dir. as they provide on-site technical assistance to the program schools.	6,500 miles per year x 2	$0.50 / mile	$26,000
2 Regional Directors daily travel to supervise mentors, support aligned implementation, build relationships with site and district leaders, calibration of mentor support and assessment	3,500 miles per year each	$0.50 / mile	$14,000
Director, Asst Dir, and 2 Regional Directors mileage to meetings at distant schools. Estimate 6	300 miles/trip	$0.50 / mile	$21,600

trips in Year 1 ($3,600) and 10 trips in Years 2-4 ($6,000 each year).			
Director, Assistant Director and 2 Regional Directors hotel and per diem for meetings at distant schools (assume $150 hotel and $50 per diem)	40 / year (24 in Y1 only)	$200	$28,800
Director, Asst Dir, and 2 Regional Directors travel to NTC meetings and symposium in CA.	18 trips (15 in Y1 only)	$1,500	$103,500

4) Equipment

Equipment	**Cost**
Phone system for statewide office	$1,000
High-speed network	$5,000
10 laptop Computers with software	$22,000
Heavy duty copier/printer/fax	$18,000
Computer projection for meetings, PD, etc	$1,000

5) Supplies

Item	**Cost**
Copy Paper @ $500/year	$2,000
Markers, pens, pencils @ $300/year	$1,200
Folders, hanging and manila @ $400/year	$1,600
Instructional materials @ $15,000/year	$60,000
Informational brochures, etc.	$10,000

6) Contractual

Product/Professional Service	**Cost**
Catering: Mentor forums meet after school and it is appropriate to supply coffee and muffins or similar food for the meetings. Costs calculated based on $100 per meeting and 25 meetings in Year 1, 75 meetings in Years 2, and 80 meetings in Years 3-4.	$26,000

7) Training Stipends
N/A

8) Other

NTC Training Program Costs: The program requires the training and development of program leaders and full release mentors utilizing the New Teacher Center trainers and materials. This includes NTC staffing, materials, supplies, and travel associated with this training.

Year 1 serves 115 beginning teachers and 8 mentors. Years 2 serves approximately 400 beginning teachers and 30 mentors. Year 3 and 4 each serve 600 beginning teachers and 40 mentors. Year 1 costs are significantly lower since only Indianapolis Public School System will be served in the first year. Year 2 and 3 will require two separate Mentor Academy tracks – one for IPS mentors who will begin their second year training in 2011-12 and one for non-IPS mentors who will begin their first year training in 2011-12.

NTC TRAINING PROGRAM COSTS

Category	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**TOTAL**
Training	$72,000	$168,000	$193,000	$193,000	$626,000
Materials and Supplies	$25,000	$44,000	$64,000	$64,000	$197,000
Travel (NTC trainers and NTC IN staff)	$33,000	$54,000	$54,000	$54,000	$195,000
TOTAL	$130,000	$266,000	$311,000	$311,000	**$1,018,000**

NTC Offices: The model proposed will require a minimum of 3 offices – one will house staff serving IPS and greater IPS; the other two will accommodate two regional consortia. However, we assume for budgeting purposes that in each region, a school district will offer the use of office space *gratis*, as is frequently the case with NTC's programs across the country. Only soft costs for these office spaces are shown in the budget below. The costs for the Indianapolis region office include the costs for the opening and operating of these offices.

REGIONAL OFFICES (x3)

Category	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**TOTAL**
Office start-up costs	$40,000	$0	$0	$0	$40,000
Rent and utilities	$40,000	$42,000	$44,000	$46,000	$172,000
Soft costs for 2 additional regional offices (assume space donated in-kind by schools)	$400	$400	$400	$400	$1600
TOTAL	$80,400	$42,400	$44,400	$46,400	**$213,600**

NTC's program, costs for which are detailed above, trains highly-qualified teachers who have passed a rigorous screening process, to work as mentors on a weekly basis with new (first and second year) teachers. These mentors are released full time from classroom duties and thus the cost of their salaries is included in the budget for this program.

Salaries for Full Release Mentors	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**TOTAL**
Indianapolis Public Schools (IPS)	$780,000	$1,560,000	$1,560,000	$1,560,000	$5,460,000
Bottom 5% Schools	$0	$1,267,500	$2,437,500	$2,437,500	$6,142,500
TOTAL	$780,000	$2,827,500	$3,997,500	$3,997,500	**11,602,500**

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
N/A

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** State Turnaround Strategy Investments **Associated with Criteria:** (D)(1)(ii), (D)(5)(i), (E)(2)(ii), (F)(2)(ii) **(Evidence for selection criterion (A)(2)(i)(d))**					
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	$1,650,000	$1,650,000	$1,650,000	$1,650,000	$6,600,000
7. Training Stipends	$0	$0	$0	$0	$0
8. Other	$7,100,000	$600,000	$1,100,000	$600,000	$9,400,000
9. Total Direct Costs (lines 1-8)	$8,750,000	$2,250,000	$2,750,000	$2,250,000	$16,000,000
10. Indirect Costs*	$542,500	$139,500	$170,500	$139,500	$992,000
11.Funding for Involved LEAs	$1,250,000	$1,250,000	$1,250,000	$1,250,000	$5,000,000
12. Supplemental Funding for Participating LEAs	$0	$0	$0	$0	$0
13. Total Costs (lines 9-12)	$10,542,500	$3,639,500	$4,170,500	$3,639,500	$21,992,000
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.					

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

N/A

2) Fringe Benefits

N/A

3) Travel

N/A

4) Equipment
N/A

5) Supplies
N/A

6) Contractual

Product/Professional Service	Estimated Cost
Technical Assistance Reviews for Struggling Schools: In partnership with community organizations and technical assistance centers around the state, IDOE will provide schools intensive assistance and comprehensive improvement planning (including goal-setting and identifying achievement benchmarks) to assist in developing a plan for course correction. IDOE will budget $18,000 to provide struggling school with two technical assistance visits (one comprehensive, initial visit and a follow-up visit to evaluate progress to date). IDOE projects supporting up to 25 schools each year with technical assistance teams ($450,000 annually). Estimates are based on the actual costs for technical assistance teams sent to struggling schools in the fall of 2009.	$1,800,000
Turnaround Leaders Academy: The IDOE will issue an RFP for external providers of a Turnaround Leaders Academy to identify, recruit, train, and build the pipeline of leaders prepared to turn around the performance of the State's chronically low-achieving schools. The provider must have the following capabilities: • Identify, recruit and select turnaround talent across all sectors (e.g. education, business, nonprofit) from within and outside the State; • Give leaders the knowledge, skills, tools, and support they need to lead a team and community towards the transformation of schools into places where all students are achieving academically; • Accept accountability for the academic performance of students in schools led by turnaround academy participants; • Work with local school districts to strategically place participants within the neediest schools; • Build local capacity for driving and supporting turnaround efforts; • Cultivate a community of turnaround leaders in Indiana dedicated to making dramatic improvements in school performance. Based on responses to a preliminary RFI completed by the IDOE in November 2009, a Turnaround Leaders Academy with the capacity to	$4,800,000

prepare 20-40 principals will require $1,200,000 annually.	

7) Training Stipends
N/A

8) Other

Category	Estimated Cost
Turnaround Managing Partner Incentive Funding: IDOE will provide start-up grants to organizations selected as managing partners to support the initial planning and development related to implementing and overseeing turnarounds and restarts in eligible schools (see Reform Plan Criteria (E)(2)(ii) for a more detailed description of a managing partners role and responsibilities). Based on the number of schools that will be eligible for turnarounds and restarts in the 2011-12 school year, the IDOE expects to select up to 5 managing partners and will use the requested funding to make awards to the selected managing partners.	$6,000,000
Exemplary Leaders Program Awards: IDOE will design and implement a program to recognize principals who achieve breakthrough improvements in low-performing schools and provide stipends for their participation in or leadership of technical assistance reviews in other struggling schools. IDOE staff will design the program early in 2010 so the first awards and stipends can be distributed in summer 2010, and recognized principals can begin participating in the technical assistance reviews of struggling schools at the start of the 2010-11 school year. The IDOE will recognize 20 principals each year with awards of $5,000 per principal ($100,000 annually).	$400,000
New Charter School Authorizer Establishment Grants: IDOE will incent two state universities with the greatest potential to become a high-quality statewide authorizer to enter the world of charter sponsorship. IDOE will conduct conversations with universities early in 2010 to gauge interest and support levels (e.g. from university president and trustees), as well as capacity to support ongoing authorization and accountability activities. IDOE aims to award the incentive by July 2010 so the new authorizing university can establish its authorizing office and begin authorizing schools by 2011. IDOE will work with the chosen university to design an exceptional authorizing and accountability process. IDOE will repeat the process in 2011 in order to establish a second new authorizing university in 2012. Both awards will provide $1,000,000 for each university to establish authorizing offices.	$2,000,000
Charter School Authorizer Improvement Grants: IDOE will set aside up to $250,000 to assist current authorizers in improving their authorizing and monitoring processes. Current authorizers will be invited to submit an application to IDOE outlining their perceived shortcomings and how they would utilize funds to improve their operations. IDOE will then	$1,000,000

work with applicants to determine a work plan to address any problems and timelines for fixing them ($250,000 in Years 1-4).	

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
N/A

11) Funding for Involved LEAs

Activity	Purpose	Cost	# LEAs involved	Total
Assist any school utilizing school turnaround models or programs endorsed by the state by paying for start-up professional development costs, up to $2500 per teacher, and to be negotiated with each individual school, based on its unique needs.	Professional development for school model or program implementation in turnaround	$2,500 x 500 teachers x 4 years ($1,250,000 annual cost)	N/A	$5,000,000

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

Budget Part II: Project-Level Budget Table **Project Name:** The Indiana Charter School Entrepreneur Fellowship **Associated with Criteria:** (D)(1)(ii), (E)(2)(ii) **(Evidence for selection criterion (A)(2)(i)(d))**					
Budget Categories	**Project Year 1 (a)**	**Project Year 2 (b)**	**Project Year 3 (c)**	**Project Year 4 (d)**	**Total (e)**
1. Personnel	$152,600	$160,230	$168,242	$176,654	$657,725
2. Fringe Benefits	$30,520	$32,656	$34,942	$37,388	$135,507
3. Travel	$10,000	$10,000	$10,000	$5,000	$35,000
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	$2,400,000	$2,400,000	$2,400,000	$2,400,000	$10,000,000
9. Total Direct Costs (lines 1-8)	$2,593,120	$2,602,886	$2,613,184	$3,019,042	$10,828,232
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)	$2,593,120	$2,602,886	$2,613,184	$3,019,042	$10,828,232

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.

BUDGET PART II: PROJECT-LEVEL BUDGET NARRATIVE

1) Personnel

Personnel: The following requested personnel will all be hired as employees of the project.	**% FTE**	**Base Salary**	**Total**
Charter School Entrepreneur Fellowship Manager (1): The manager will be responsible for the overall leadership and management of the Charter School Entrepreneur Fellowship and will report to the president and CEO of The Mind Trust. The manager will: oversee the design and implementation of	100%	$98,100	$98,100

a recruitment and selection process for charter school founders; devise and manage the deployment of a plan for assisting selected fellows in the start-up process; conduct outreach to potential community partners who can provide assistance to fellows; provide direct assistance to fellows; evaluate the progress of fellows; and analyze the incubator's strategy and operations in order to make changes as needed to improve results. The manager will be selected based on a wide-ranging search. The manager should have 3-5 years of management experience, including a successful track record relevant to starting and managing excellent public schools. The manager will devote 100% of his or her time to the Charter School Entrepreneur Fellowship. The salary for the manager is assumed at $98,100 for 2010-11 with 5% increases annually.			
Charter School Entrepreneur Fellowship Assistant Manager (1): The assistant manager will report to and assist the manager as needed with the Fellowship's operations. The assistant manager will have specific responsibility for organizing the application process for the Fellowship; providing direct assistance to fellows; gathering data on the progress of fellows and reporting that data to IDOE and other stakeholders; and engaging in other activities that support the success of the incubator and its fellows. The assistant manager should have 2 or more years of experience in a relevant field and a strong record of effectively executing responsibilities similar to those of this position. The assistant manager will devote 100% of his or her time to the Charter School Entrepreneur Fellowship. The salary for the assistant manager is assumed at $50,000 for 2010-11 with 5% increases annually.	100%	$54,500	$54,500

2) Fringe Benefits

Fringe benefits are estimated based on the salaries of Mind Trust personnel and include 7% annual increases.

Personnel	**Fringe Benefit Percentage**
Charter School Entrepreneur Fellowship Manager	20%
Charter School Entrepreneur Fellowship Assistant Manager	20%
TOTAL	

3) Travel

Travel	# Trips	$ per Trip	Total
Recruitment: Funds will be used to travel around the country each year to meet with representatives of successful charter school models to encourage them to launch their school models in Indiana.	10	$1,000	$10,000

4) Equipment
N/A

5) Supplies
N/A

6) Contractual
N/A

7) Training Stipends
N/A

8) Other

Category	Estimated Cost
Charter School Entrepreneur Fellowships: The Mind Trust will recruit, select, and support 50 entrepreneurs over four years as they seek to launch transformative new charter schools across the state. The Fellowship will be 15 months in duration. Each fellow will be awarded a $200,000 stipend to be distributed in 15 equal monthly installments. In addition, The Mind Trust will assist each school leader in preparing an effective charter application, identifying potential facilities, recruiting board members, raising additional financial support, and successfully meeting other goals associated with the launch of successful new charter schools. New schools launched through the Fellowship may be stand-alone charters, replications of successful existing schools, or replications of successful schools run by Charter Management Organizations (CMOs). The Mind Trust will hold Fellows accountable for meeting key benchmarks of success during the start-up phase. Upon completion of the Fellowship, fellows will be expected to have successfully launched a new charter school that is financially, operationally, and educationally sound. Based on assumption of awarding 12 Charter School Entrepreneur Fellowships of $200,000 each annually for 2010-11, 2011-12, and 2012-	$10,000,000

13. In 2013-14, the budget assumes the award of 14 Fellowships of $200,000.	

9) Total Direct Costs
See project-level budget table above.

10) Indirect Costs
N/A

11) Funding for Involved LEAs
N/A

12) Supplemental Funding for Participating LEAs
N/A

13) Total Costs
See project-level budget table above.

A-8: INDIRECT COSTS

Budget: Indirect Cost Information

To request reimbursement for indirect costs, please answer the following questions:

Does the State have an Indirect Cost Rate Agreement approved by the Federal government?

YES X
NO ○

If yes to question 1, please provide the following information:

Period Covered by the Indirect Cost Rate Agreement (mm/dd/yyyy):

From: _1_/1_/_2007_ To: _12/_31/_2009*_

*IDOE is currently working under a ninety-day extension of the Agreement which expired 12/31/2009.

Approving Federal agency: _x_ED ___Other

(Please specify agency): _____

Directions for this form:

1. Indicate whether or not the State has an Indirect Cost Rate Agreement that was approved by the Federal government.

2. If "No" is checked, ED generally will authorize grantees to use a temporary rate of 10 percent of budgeted salaries and wages subject to the following limitations:
(a) The grantee must submit an indirect cost proposal to its cognizant agency within 90 days after ED issues a grant award notification; and
(b) If after the 90-day period, the grantee has not submitted an indirect cost proposal to its cognizant agency, the grantee may not charge its grant for indirect costs until it has negotiated an indirect cost rate agreement with its cognizant agency.

3. If "Yes" is checked, indicate the beginning and ending dates covered by the Indirect Cost Rate Agreement. In addition, indicate whether ED, another Federal agency (Other) issued the approved agreement. If "Other" was checked, specify the name of the agency that issued the approved agreement.

A-9: LILLY ENDOWMENT MEMO

Date: January 11, 2010
To: Todd Huston
From: Sara Cobb
Subject: Lilly Endowment program support

As requested, below are brief descriptions of the Endowment's support of key educational programs in Indiana. As always, please let me know if you have any questions. I wish you the best success with the proposal submission.

New Tech High Schools:

Lilly Endowment has supported indirectly the establishment of New Tech High Schools in Indiana through two organizations:

- ***Community Partnerships in Fort Wayne, Indiana:*** Five million of a $20 million grant approved in March 2009 to Community Partnerships Inc., a supporting organization of the Community Foundation of Greater Fort Wayne, is being used to implement New Tech High Schools in the northwest part of the state. The grant established Talent Opportunity Success 2015 (TOpS 2015), a three-year, regional initiative designed to stabilize and reverse the steady decline in per-capita personal income in northeast Indiana by accelerating efforts to transform and expand the availability of highly skilled workers, technicians and graduate-level talent for the region. TOpS 2015 will specifically focus on the defense/aerospace industry, which has an impressive presence in that region and continues to grow even in this difficult economy.

- ***University of Indianapolis' Center for Excellence in Leadership of Learning – CELL:*** CELL is a primary resource for those leading change in Indiana K-12 education. Since its founding in 2001, Lilly Endowment has provided three grants totaling almost $24 million. CELL used a portion of each of the Endowment grants to build on successful high school networks and help establish new ones. It helped launch six New Tech high schools across the state. CELL also provides timely information and resources to education leaders statewide through a Web-based clearinghouse and sponsors acclaimed annual conferences for parents, teachers, school board members, school administrators and community leaders. Under the most recent grant, approved in November 2009, CELL will expand even more its focus on middle schools and principal leadership.

The Learning Connection – A total of $6 million beginning 2003 through grants to the Indiana Humanities Council and The Learning Collaborative.

Woodrow Wilson National Fellowship Foundation - $10.1 million in 2007 to enable four Indiana colleges and universities to offer fellowships to a total of 160 fellows.

Teach for America - $2 million in 2007 to the Indianapolis Center for Educational Entrepreneurship (The Mind Trust) for Teach for America in Indianapolis toward a three-year $4.5 million budget.

I-STEM network – A total of $5 million beginning in 2007 to the CICP Foundation to enable BioCrossroads, an initiative of the Central Indiana Corporate Partnership, to establish and support the I-STEM Resource Network, a coalition of higher education institutions, K-12 schools, businesses and governmental organizations dedicated to providing Indiana with a skilled workforce by improving K-12 student achievement in Science, Technology, Engineering, and Mathematics (STEM). Biocrossroads also is working in other ways to develop the human capital needed for the life sciences to thrive in Indiana.

A-10: SUMMARY OF SUPPORT LETTERS

ELECTED OFFICIALS:

1. Governor Mitchell E. Daniels, Jr.
2. IN Supreme Court Chief Justice Randall Shepard
3. Mayor of Bedford
4. Mayor of Evansville
5. Mayor of Fort Wayne
6. Mayor of Gary
7. Mayor of Indianapolis
8. Mayor of New Albany
9. Mayor of Princeton
10. Mayor of Seymour
11. Senate Democratic Caucus
12. State Representative Brian Bosma
13. State Senator David Long
14. US Representative Dan Burton
15. US Representative Steve Buyer
16. US Representative Joe Donnelly
17. US Representative Mike Pence
18. US Representative Mark Souder
19. US Senator Richard G. Lugar

EDUCATORS:

1. Archdiocese of Indianapolis
2. Catholic Diocese of Evansville
3. Charter Schools Advisory Board
4. IN Association of Public School Superintendents
5. IN Association of School Business Officials
6. Indiana Parent Teacher Association
7. Indiana Public Charter Schools Association
8. Indiana School Boards Association
9. Indiana State Board of Education
10. Indiana State Teachers Association
11. Metropolitan School District of Mount Vernon
12. Region 8 Education Service Center
13. Teach for America

INSTITUTIONS OF HIGHER EDUCATION:

1. Anderson University
2. Ball State University
3. Butler University
4. Center of Excellence in Leadership of Learning, University of Indianapolis
5. DePauw University
6. Earlham College
7. Franklin College
8. Holy Cross College
9. Huntington University
10. Indiana State University
11. Indiana University
12. Ivy Tech Community College Southwest
13. Indiana University Kelley School of Business
14. Manchester College
15. Marian University
16. Martin University
17. Notre Dame University
18. Purdue Co-op Extension Marion County
19. Purdue University
20. Saint Joseph College
21. Trine University
22. University of Saint Francis
23. University of Southern Indiana
24. Vincennes University
25. Wabash College

FOUNDATIONS:

1. Central Indiana Community Foundation
2. Chase Foundation
3. Drexel Foundation for Educational Excellence
4. Horseshoe Foundation
5. Indiana Grantmakers Alliance
6. Legacy Foundation Lake County
7. Lumina Foundation
8. NorthEast Indiana Foundation
9. Paul Ogle Foundation
10. Richard Fairbanks Foundation
11. Welborn Baptist Foundation

COMMUNITY ORGANIZATIONS:

1. Arts Council of Southwestern Indiana

2. Asia Society
3. Big Brothers Big Sisters
4. BioCrossroads
5. Central Indiana Corporate Partnership
6. Community Action of Evansville
7. Community Job Link Evansville
8. Diploma Plus
9. Economic Development Coalition
10. Evansville Convention & Visitors Bureau
11. Evansville Goodwill Industries, Inc.
12. Evansville Philharmonic Orchestra
13. Gary Literacy Coalition, Inc.
14. Glaziers Local 1165
15. Hospitality & Outreach for Latin Americans
16. IN Source
17. Indiana Afterschool Network
18. Indiana Commission for Higher Education
19. Indiana Manufactures Association
20. Indiana Minority Supplier Development Council
21. Indiana Youth Institute
22. Indianapolis Urban League
23. Int'l Brotherhood Electrical Workers Local 16
24. International Baccalaureate Americas
25. I-Stem Resource Network
26. Koch Family Children's Museum Evansville
27. La Plaza
28. Leadership Ft. Wayne
29. NAACP New Albany Branch
30. National Society of Hispanic MBAs
31. New Teacher Center
32. New Tech Network
33. Painters Local 156
34. Project Lead The Way
35. Sheet Metal Workers Int'l Local 22
36. The Mind Trust
37. United Assoc of Journymen & Appret Local 136
38. United Way Allen County

COMMUNITY BUSINESSES:

1. Acropolis Greek Restaurant
2. Ad Cetera
3. Alcoa Warwick Operations
4. American General Financial Service
5. Ameriqual Group, LLC
6. APEX Tool & Manufacturing
7. Automated Office Solutions
8. Barnes & Noble
9. BMG, Inc.
10. Chamber of Commerce 1, Southern IN
11. Chamber of Commerce of Ft. Wayne
12. Chamber of Commerce of Gary
13. Chamber of Commerce of Gibson County
14. Chamber of Commerce of Greater Bloomington
15. Chamber of Commerce SW IN
16. Crescent Plastics, Inc.
17. Crossroads Christian Church
18. Data Link
19. Deaconess Health System
20. Diversified Instrument Services
21. Dunn Hospitality Group
22. Eli Lilly and Company
23. Evansville Commerce Bank
24. Evansville Regional Business Com, Inc.
25. F.C. Tucker Emge Realtors
26. Fifth Third Bank
27. First Federal Bank Michael Head CEO
28. Ft. Wayne Civic Theatre
29. Gary IN Neighborhood Services, Inc.
30. Given & Spindler Companies
31. Grow Southwest Indiana Workforce
32. Hafer Associates, P. C.
33. Heritage Federal
34. Heritage Fund Bartholomew County
35. Hilliard Lyons
36. Hub International Midwest
37. Indiana Chamber of Commerce
38. Indiana Michigan Power
39. Integra Bank N.A.

40. Intek
41. J P Morgan Chase NE Region
42. Kahn, Dees, Donovan & Kahn, LLP
43. Kemper 1st Choice Payroll
44. Kemper Capital Management, LLC
45. Kemper CPA
46. Kemper Technology Consulting
47. Kirby's Private Dining
48. Koch Air
49. Koch Enterprises, Inc.
50. Labor Ready
51. M.G. Robinson, Inc.
52. Mike Vea Former CEO Integra Bank
53. Morales Group
54. Old National Bank
55. Old National Bank Ft. Wayne
56. Old National Bank Southern Region
57. Old National Wealth Management
58. Parkview Health
59. PNC-National City Bank
60. Product Acceptance & Research
61. Proenergy Consultants
62. Pulse Systems
63. Regency Properties
64. Royal Office Products, Inc.
65. Schenkel Shultz Architects
66. South Western Communications (3 letters)
67. St. Mary's Health System
68. Tales Scales
69. TAP System
70. Toyota Manufacturing Indiana
71. Vectren
72. Wabash Plastics, Inc.
73. Warehouse Services, Inc.
74. WFIE Tri-State News & Weather
75. Whirlpool Corporation
76. WNIN Tri-State Public Media
77. Ziemer, Stayman, Weitzel & Shoulders

STATE OF INDIANA
OFFICE OF THE GOVERNOR
State House, Second Floor
Indianapolis, Indiana 46204

Mitchell E. Daniels, Jr.
Governor

January 14, 2010

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

Secretary Duncan:

Thanks in great part to you and the administration, Indiana has made huge, overdue strides in education reform during the last year. We have eliminated caps on charter schools, eliminated a ban on linking student performance to teacher evaluation, and transformed our expectations for teacher education and licensing. Your insistence on reform like this was of great value in taking these steps.

I am now proud to wholeheartedly endorse Indiana's "Fast Forward" Race to the Top grant application. I believe that these funds will permit Indiana to accomplish its next round of reform and improvement. Over 90% of Indiana's school districts have joined the Department in its quest for this grant.

I would like to believe that no state is more enthusiastic than ours about the goals of Race to the Top, or about the prospects that its dollars should be seen as the levers of long-term change. Thank you for the opportunity to compete.

Sincerely,

Mitch Daniels

City of
Indianapolis
Gregory A. Ballard, Mayor

January 6, 2010

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

Dear Secretary Duncan:

On behalf of the City of Indianapolis and my charter schools initiative, I write to you in support of Indiana's Race to the Top grant application.

Maintaining the status quo in education is unacceptable. That is why, as the only Mayor in the country with the authority to directly authorize new public charter schools, I remain committed to authorizing only the highest quality charter applicants, and holding them accountable for results. Thriving neighborhoods and communities require high-performing public schools. Thus, I fully support Indiana's Race to the Top application, as it will prepare Indiana's students to compete and succeed in our ever-increasing global workforce.

Never before has the United States Department of Education made reform-minded competition the prerequisite for receiving funding. The Race to the Top Fund has the potential to expedite reform efforts throughout the nation; in fact, it already provided support to Indiana's reform efforts. For example, Race to the Top's emphasis on high-quality public charter schools blocked efforts by some in our state who tried imposing a charter moratorium.

Indiana realizes and is taking full advantage of this unprecedented opportunity by focusing on the four areas of reform outlined by Race to the Top: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools. Under the leadership of Governor Daniels and Superintendent Bennett, Indiana continues to make significant progress in fostering a reform-ready environment targeted in each of these areas.

Thank you for considering our state's application. I am confident that upon close examination, you will see Indiana as positioned for transformational education reform. Receiving a Race to the Top award will accelerate the process of ensuring that each Hoosier student receives a world-class education.

Sincerely,

Gregory A. Ballard
Mayor
City of Indianapolis

Office of the Mayor
2501 City County Building
200 E. Washington Street
Indianapolis, Indiana 46204
(317) 327-3601
(fax) 327-3980
(TDD) 327-5186
www.indy.GOV

RICHARD G. LUGAR
INDIANA

306 HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510
202-224-4814
http://lugar.senate.gov

COMMITTEES:
FOREIGN RELATIONS, RANKING MEMBER
AGRICULTURE, NUTRITION, AND FORESTRY

United States Senate

WASHINGTON, DC 20510-1401

January 5, 2010

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

Dear Secretary Duncan:

I am writing to you to share my strong support for the Indiana Department of Education's Race to the Top grant application. Indiana is well-positioned to effectively utilize the Race to the Top funding to strengthen the educational opportunities afforded to the students in our state.

Under the leadership of Superintendent of Public Instruction Dr. Tony Bennett and Governor Mitch Daniels, the Indiana Department of Education recognizes that improving and modernizing the educational system in our state and across our country requires bold vision, innovation and an honest reevaluation of conventional teaching methods. The state is already on the path to meeting the four key principals of Race to the Top: internationally-benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for poor performing schools. For example, in an effort to meet high international academic standards, Indiana joined the Common Core State Standards Initiative, to develop and implement standards across states in the areas of English/language arts and mathematics for grades K-12. Furthermore, Indiana recognizes that closing the achievement gap requires strong leadership at the school and classroom levels and is subsequently developing a teacher and principal evaluation process that will correlate with individual student achievement.

As I wrote to you last September, Indiana's educational leaders are enthusiatic in their commitment to reform. I share their view that boosting the academic achievement of our young people and strengthening their skill sets are vitally important to the economy of our state and country and our nation's international competitiveness.

Thank you for your consideration of Indiana's Race to the Top application. I wish you every continuing success in your important leadership.

Sincerely,

Richard G. Lugar
United States Senator

RGL/lbl

PRINTED ON RECYCLED PAPER

John M. Mutz

8128 Dean Road, Suite B
Indianapolis, Indiana 46240
T: 317-841-7920
F: 317-577-0241

December 29, 2009

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

Dear Secretary Duncan:

On behalf of Indianapolis Mayor Greg Ballard's Charter Schools Advisory Board, I write in support of Indiana's Race to the Top grant application. I believe this is a timely, well-crafted plan to improve Indiana's schools.

Never before has the U.S. Department of Education made reform-minded competition the prerequisite for receiving funding. The federal Race to the Top competitive grant has the potential to expedite reform efforts throughout the nation, and already has helped support reform efforts in Indiana. Of particular importance to our board, Race to the Top's emphasis on the potential of charter schools helped to block efforts by some in our state to impose a charter school moratorium.

Indiana is taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by the Race to the Top--areas the board strongly supports: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools.

In total, Indiana has made significant progress in fostering a reform-ready environment targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout the nation. In particular, we believe these reforms position our schools to better prepare students for the challenges of the modern workforce, to close the achievement gap, and to increase graduation rates.

As chairman of the advisory board, I recognize that maintaining the status quo in education is unacceptable. Schools are the nucleus of any community, and the entire community stands to gain from better schools. With that in mind, I am committed to standing behind Indiana's Race-to-the-Top application and its plan to provide Hoosier students a world-class education.

Winning Race to the Top funds will only increase the magnitude and speed of change in Indiana.

I am confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

John M. Mutz
Chairman, Indianapolis Charter Schools Advisory Board
Chairman, Lumina Foundation for Education

Indiana State Board of Education
Room 225 State House
Indianapolis, Indiana 46204

January 12, 2010

The Indiana State Board of Education fully supports Indiana's Race to the Top application. A Race to the Top grant will accelerate the significant, bold, and effective reforms we are making every day to ensure that Indiana students receive a rigorous and quality education in every school across our state.

The Indiana State Board of Education supports student-centered and learning-focused educational innovation and entrepreneurship. To this end, the State Board of Education already has

- eliminated seat time requirements for students to earn high school credit and input requirements that are not related to student achievement;
- enacted provisions to facilitate, as opposed to frustrate, the educational entrepreneurship and innovation reflected in network model schools being implemented in Indiana communities, with the expectation that the models are defined clearly, implemented properly, and followed rigorously;
- adopted world class academic standards;
- created what we believe is the most comprehensive and cohesive design for an assessment system in the country, an assessment system that will allow Indiana to implement a school accountability system based on the achievement growth of each Indiana student toward college and career readiness; and
- initiated a new grading system for all schools with letter grades, A – F, a welcome and necessary change for a system that historically has graded students but seemed hesitant to grade institutions and adults.

Indiana also has begun to face the challenge of underperforming schools with a quality review process based on Mass Insight research and guided by Cambridge Education, Ltd. The review answers critical questions about impaired schools – Are the students ready to learn? Are the schools and faculty ready to teach students to learn? Are they ready to act? Memoranda of understanding will be used to chart a clear course of action for each underperforming school, a course of action intended to reverse performance and sustain increasing improvement in student achievement.

The State Board is fully prepared to take all necessary actions to ensure that our students are in high-quality schools that are student-centered, learning-focused and growth driven. We simply will not allow low-performing and failing schools to continue serving students in a substandard manner. We take our responsibility to serve all Indiana's students seriously and will take over, close or restructure failing schools.

The Indiana State Board of Education endorses Indiana's Fast Forward plan.

Sincerely,

The Members of the Indiana State Board of Education

Indiana
State
Teachers
Association

Nathan Schnellenberger, President

150 West Market Street, Suite 900
Indianapolis, IN 46204-2875
(317) 263-3400
(800) 382-4037
FAX: (317) 655-3700
(800) 777-6128

January 13, 2010

Dr. Tony Bennett
Indiana Department of Education
Room 229, Statehouse
Indianapolis, Indiana 46204-2798

Dear Dr. Bennett,

As president of the Indiana State Teachers Association, I want to acknowledge the opportunities ISTA has had to participate in discussions with Indiana's Superintendent of Public Instruction concerning the proposals you might make regarding teacher evaluation in Indiana's Race To The Top application.

Should Indiana be selected as a recipient of Race To The Top funding, I appreciate the stated commitment of the Superintendent that ISTA will be an active participant in the development and implementation of state plans for education reform in the area of teacher evaluation and in other areas of education policy which will be included in the application.

I find it concerning, though, that the leadership of nearly 50,000 ISTA members teaching the more than one million public schoolchildren in our public schools was not allowed to see the final Race To The Top application before it was submitted to the federal government on January 19.

I believe that Indiana's successful application for Race To The Top funds is important for the schoolchildren in many school districts in Indiana. If Indiana is awarded these funds, ISTA is willing to participate more fully and constructively in the policy decision-making process that will continue.

ISTA's objective is to provide its best thinking and advice on policy issues so that Indiana's prospects for a bright future are secured by actions that will best serve the schoolchildren and school communities within our state. I assume that once I see the plan there will be aspects of the plan that ISTA cannot fully support; however, I acknowledge the need for cooperation among education stakeholders for Indiana to succeed.

Just as Race To The Top leaves the decision on participation up to local school districts, so too in ISTA's discussions with DOE, ISTA has not wavered in its position that both endorsement of and participation in Race To The Top is a matter for local decision. ISTA has made this clear in discussions with DOE and DOE has acknowledged in those discussions that collective bargaining will be required in order to construct the work plans which will be required of local school

districts to obtain Race To The Top funds. This understanding is consistent with Indiana's version of the Memorandum Of Understanding (MOU) for participating LEA's ("Partnership Agreement between Indiana Department of Education and Participating LEA"). As was the case in the federal MOU, by signing Indiana's Partnership Agreement, a participating LEA is providing the assurance that it "(w)ill comply with . . . all applicable federal and state laws and regulations."

ISTA looks forward to continuing to work with our members and Indiana public officials to provide Hoosier students an education that equals the best in the nation and the world.

Sincerely,

Nate Schnellenberger
ISTA President

CELL UNIVERSITY of INDIANAPOLIS.

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January 4, 2010

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

Dear Secretary Duncan,

Please accept this letter of support from the Center of Excellence in Leadership of Learning (CELL) at the University of Indianapolis for the Indiana Department of Education's Race to the Top grant application. The staff at our center has reviewed the application carefully and we believe it to be worthy of your consideration in that it would enable our state to effectively transform Indiana schools for the benefit of our students and the communities in which they live.

As an organization, CELL has served as a catalyst for innovative programs and transformational models in Indiana schools since 2001. In that capacity, we have worked closely with both the Indiana Department of Education and the Indiana Governor's office on such initiatives as New Tech High School, Early College High School, Advanced Placement, International Baccalaureate and dual credit programs. These connections have provided CELL with the opportunity to become familiar with Indiana's leadership potential for advancing excellence in teaching and learning.

In that regard, we believe that Indiana possesses several advantages that provide for both the commitment and capacity to establish a positive culture that given the Race to the Top grant resources, will translate into significant school reform. Those advantages, presented as broadly defined elements of the Indiana educational landscape, are as follow.

- <u>A policy environment that will allow significant educational transformation which will be sustainable over time</u>
  All the critical conditions are present in Indiana's plan to provide unprecedented success to implement the Race to the Top areas of reform including internationally benchmarked academic standards, recruitment and retention of effective teachers and principals, data systems that drive instruction, and dramatic turnarounds for our low performing schools. Enabling legislation, a progressive policy environment and a positive political climate are aligned to guarantee long-term success for the approaches outlined in Indiana's application.

- A stable and committed state leadership structure
  The Indiana Governor and State Superintendent of Schools will remain in office throughout the duration of the implementation of the Race to the Top grant initiatives. Unlike 37 of the 50 states with gubernatorial elections in 2010, Indiana Governor Daniels as well as Superintendent Bennett are assured to lead this effort well into the future and will have the additional advantage of enthusiastic support from the Indiana State Board of Education and the Indiana Education Round Table.

- A willingness to adopt best practices from other states and national organizations
  The Indiana Race to the Top application employs the best thinking from across the country through the adoption of exemplary initiatives from other states as well as leading national education entrepreneurial organizations. Examples of practices to be adopted from other states include certification for the use of student performance data from Oregon, Colorado's growth model for student achievement and linking student performance to teacher training experiences such as in Louisiana. Indiana's plan for turning around the lowest-achieving schools includes the use of instructional models from leading school development organizations such as the New Tech Network, the Asia Society, the International Baccalaureate Programme, and the Commonwealth Corporation. In addition, Indiana is leveraging the best ideas from other exemplary national educational organizations such as New Leaders for New Schools for principal evaluation, the National Institute for Excellence in Teaching for performance-based teacher compensation and for alternative teacher preparation from Teach For America, the New Teacher Project and the Woodrow Wilson National Fellowship Foundation.

- A climate of support for change by Indiana stakeholders
  Individual educators as well as the state educational establishment in Indiana are ready and willing to make a concerted effort to transform schools, improve student outcomes and implement the changes required to make Indiana a national leader in education reform. CELL works with communities throughout the state and consistently finds support for significant school improvement actions from teachers, administrators, school board members and community leaders both individually and through their representative professional organizations.

The receptivity to making a difference in Indiana by increasing the graduation rate, closing the achievement gap and preparing students to be contributing citizens of the 21st century is very real and includes a significant consensus from Hoosiers throughout Indiana.

With the positive political and policy environment, established and committed leadership, the use of the best ideas from around the country and the willingness of educators and communities to improve, Indiana is poised to take full advantage of the opportunity provided by the resources of the Race to the Top grant. Indiana is ready, willing and able to make a difference in the success of schools and students and to serve as a national model for positive educational reform.

For these reasons, CELL is proud to provide an unqualified endorsement of the Indiana Race to the Top application in support of educational transformation for our state.

Sincerely,

David Dresslar
Executive Director
Center of Excellence in Leadership of Learning
University of Indianapolis

INDIANA UNIVERSITY

December 14, 2009

The Honorable Mitchell E. Daniels, Jr.
Governor, State of Indiana
State House, Room 206
200 West Washington Street
Indianapolis, IN 46204

Dear Governor Daniels:

OFFICE OF THE PRESIDENT

I am writing to offer the support and assistance of Indiana University for Indiana's Race to the Top proposal. IU has the capacity to address at least three of the four federal funding assurance areas: (1) improving teacher effectiveness; (2) improving the collection and use of data; and (3) turning around struggling schools.

1. In the area of improving teacher effectiveness, you are aware that the Urban Center for the Advancement of STEM Education (UCASE) at IUPUI was selected to prepare the national Woodrow Wilson Teaching Fellows. Most recently, the IU School of Education component on the Indianapolis campus was one of only 18 institutions in the country to be awarded a US Department of Education Teacher Quality Partnership grant. The Bloomington campus also offers many distinctive teacher education programs, including a recently created five-year BS/M.Ed to prepare math and sciences teachers who will graduate with both a subject-area baccalaureate degree and a master's degree in education. All IU campuses also offer Transition to Teaching programs that have similar baccalaureate requirements to Teach for America and other alternative certification programs.

2. Indiana University is a leader in the area of assessment/evaluation through data collection and analysis. You are familiar with the work of the Center for Evaluation and Education Policy (CEEP) in the area of evaluation and policy research. The Polis Center Savi database as well serves as a warehouse for community level data and other annual indicators (e.g., economic, health, and social services). Our faculty researchers in these centers and others are experts in large database management, evaluation design and translational research.

3. Indiana University also has a long-standing record of supporting struggling schools and promoting college access and success. For example, IUPUI has a formal Memorandum of Understanding with IPS to bring students from the Crispus Attucks Medical Magnet high school to campus for early college coursework, medical career exploration, and internships. The Center for P-16 Research and Collaboration in Bloomington has been working in partnership with the Gary Community Schools Corporation to improve student achievement in selected schools. Ms. Pearl Prince, the principal of the Frankie W. McCullough Academy for Girls, one of the schools targeted in the Gary partnership, received the 2009 Panasonic National School Change Award for leaders of failing schools who bring about phenomenal change.

Indiana University is willing, able, and eager to partner with you and Superintendent Tony Bennett to support Indiana's Race to the Top proposal and its implementation. Collaboration between the state and a higher education institution can substantially enhance the chances of a successful proposal outcome. I have asked Vice President Applegate to be IU's initial point of contact for this effort. Please do not hesitate to call on him if we can be of assistance.

Yours sincerely,

Michael A. McRobbie
President

cc: Tony Bennett, Indiana Superintendent of Public Instruction
VP John Applegate, Vice President for Planning and Policy
Gerardo Gonzalez, Dean, IU School of Education

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PURDUE
UNIVERSITY

OFFICE OF THE PRESIDENT

January 11, 2010

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

Dear Secretary Duncan:

Purdue University strongly supports *FAST FORWARD,* Indiana's plan for Race to the Top (RttT). The reform goals of the Race to the Top competition not only are designed for positive change in Indiana's schools but also are exceptionally well-aligned with the goals of the Purdue New Synergies Strategic Plan. As a land grant institution, Purdue has a long history of collaboration with the Indiana Department of Education and P-12 LEAS on the improvement of learning and instruction that could reach new heights of innovation and excellence with Race to the Top funding.

Indiana has already made significant progress in creating a reform environment in each of the absolute priority areas. In fact, Indiana is seen by many as one of a handful of states nationally that is innovating in powerful ways to transform P-20 learning. This national reputation is one reason why Indiana was selected by the Woodrow Wilson Foundation as the first state for implementation of the Woodrow Wilson Teaching fellowships. We believe the reforms envisioned in the *FAST FORWARD* proposal will enable Indiana to provide an education that is among the best in the world.

The reform initiatives in *FAST FORWARD* will strengthen alignment between Indiana's schools and postsecondary institutions. It will assist Indiana in achieving its goal of enhancing student success and also will provide multiple opportunities for higher education, the Indiana Department of Education, and Indiana LEAs to collaborate on improving the P-20 instructional continuum in Indiana. The reforms in *FAST FORWARD*, especially the emphasis on internationally benchmarked standards, will greatly assist us in our goal of creating a seamless transition between high school and college and enabling every student to succeed.

With regard to **data systems to support instruction**, we strongly support the goal of a uniform, longitudinal, P-20 data system that includes the ability to match P-12 teachers to students and provides information on the extent to which students transition successfully from secondary schools to post-secondary education. Purdue is ready to assist with the development of statewide data systems and the evaluation of the efficacy and efficiency of such systems through collaborative research.

Hovde Hall, Room 200 ▪ 610 Purdue Mall ▪ West Lafayette, IN 47907-2040 ▪ (765) 494-9708 ▪ Fax: (765) 494-7875

Indiana is committed to the goal of recruiting and retaining **great teachers and leaders** and is very pleased with this emphasis in the reform blueprint. Recent changes in state licensure regulations reflect this commitment and require teacher education programs in Indiana to emphasize both subject matter and pedagogical content, as well as articulated clinical experiences. In addition, existing collaborative initiatives such as the I-STEM Resource Network, which is a partnership of government, education, and industry in the state, have established an infrastructure for ongoing professional development and resources for teachers in rural and urban areas.

Purdue has numerous important educational resources in place that include the rural schools network, Woodrow Wilson Teaching Fellowship Program, STEM Goes Rural, Project Lead the Way, INSPIRE, and CRESME, among others. We are ready to use these and other resources to support the efforts to not only turn around low performing schools but to transform the education landscape in Indiana.

As one of Indiana's leading higher education institutions, Purdue lends its full support to the Indiana Race to the Top application. We commit to partner in creating a national model for the transformation of P-12 education in Indiana.

Sincerely,

France A. Córdova
President, Purdue University

Cc: William R. Woodson, Executive Vice President for Academic Affairs and Provost
Victor Lechtenberg, Vice Provost for Engagement
Maryann Santos de Barona, Dean, College of Education

CICF
CENTRAL INDIANA COMMUNITY FOUNDATION

The INDIANAPOLIS FOUNDATION
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January 8, 2010

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

Dear Secretary Duncan,

Central Indiana Community Foundation (CICF) is an ardent supporter of the Indiana Department of Education's (IDOE) Race to the Top grant application. We believe that State Superintendent Dr. Tony Bennett, and his staff, has drafted a very thoughtful and well-crafted plan to build upon current school reform and improvement strategies in our state. As a part of those efforts, CICF and IDOE are partnering in the development of a public/private performance incentive program aimed at closing the achievement gap and increasing the number and percentage of Hoosier students that graduate high school, enroll and succeed in college.

Local community foundations, along with Lumina Foundation for Education and the State Student Assistance Commission of Indiana (SSACI) have launched college readiness initiatives in two of our most challenging counties: Marion and Lake. These two counties account for over 80% of middle and secondary "turnaround" schools in the State of Indiana. As a prudent steward of charitable resources, CICF understands the value of providing financial incentives to encourage bold and transformational approaches to address the needs of our community. Consequently, our performance incentive program, in partnership with IDOE, will provide these financial incentives to school corporations that significantly improve on predetermined key college access indicators. CICF is committed to leveraging charitable dollars to sustain these efforts and grow them across the state in partnership with local community foundations. We believe IDOE's Race to the Top application compliments our work in education and will position Indiana schools to better prepare students for the challenges of a changing economy, to close the achievement gap between specific sub-populations, and increase high school graduation, college matriculation and success rates.

We applaud the Department of Education's approach of developing a competitive process to incent innovation and expedite reform in our community.

Sincerely,

Brian Payne, President
Central Indiana Community Foundation

615 N. Alabama Street, Suite 119, Indianapolis, IN 46204 p 317.634.2423 f 317.684.0943 www.cicf.org

Tina Walters
JPMorgan Chase Foundation

January 2, 2010

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

Dear Secretary Duncan,

The JPMorgan Chase Foundation supports the Indiana Department of Education's Race to the Top grant application. We believe this is a timely, well-crafted plan to improve Indiana's schools.

Never before has the U.S. Department of Education made reform-minded competition the prerequisite for receiving funding. The federal Race to the Top competitive grant has the potential to invigorate and expedite reform efforts throughout the nation, and already has helped drive many bold changes in Indiana.

Indiana is taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by the Race to the Top - areas the JPMorgan Chase Foundation strongly supports: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools.

In total, Indiana has made significant progress in fostering a reform-ready environment targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout the nation. In particular, we believe these reforms position our schools to better prepare students for the challenges of the modern workforce, to close the achievement gap, and to increase graduation rates.

As a foundation, we recognize that maintaining the status quo in education is unacceptable. Schools are the nucleus of any community, and the entire community stands to gain from better schools. With that in mind, we are committed to standing behind the IDOE's Race-to-the-Top application and its plan to provide Hoosier students an education that is among the best in the nation and the world.

Winning the Race to the Top money will only increase the magnitude and speed of change in Indiana.

We are confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Tina Walters
Vice President
Indiana

LEGACY
FOUNDATION
INCORPORATED

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www.legacyfoundationlakeco.org

January 7, 2010

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

Dear Secretary Duncan,

Legacy Foundation, Inc. supports the Indiana Department of Education's Race to the Top grant application. We believe this is a timely, well-crafted plan to improve Indiana's schools.

Never before has the U.S. Department of Education made reform-minded competition the prerequisite for receiving funding. The federal Race to the Top competitive grant has the potential to invigorate and expedite reform efforts throughout the nation, and already has helped drive many bold changes in Indiana.

Indiana is taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by the Race to the Top - areas Legacy Foundation strongly supports: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools. *Legacy Foundation has specifically addressed the use of data systems in our community by funding the capacity for schools to share data with nonprofit organizations providing after school and weekend programming for students. In the fall of 2009 we launched the implementation of nFocus Software's TraxSolutions which tracks and measures outcomes for more than 2.5 million children in all fifty states and Canada. We know this technology enables schools, families and the nonprofit community work together to ensure student success.*

As a community foundation based in Lake County, IN, we recognize that maintaining the status quo in education is unacceptable. Schools are the nucleus of any community, and the entire community stands to gain from better schools. With that in mind, we are committed to standing behind the IDOE's Race-to-the-Top application and its plan to provide Hoosier students an education that is among the best in the nation and the world.

Winning the Race to the Top money will only increase the magnitude and speed of change in Indiana.

We are confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Nancy K. Johnson

Nancy K. Johnson
President

Lake County's Community Foundation

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LUMINA
FOUNDATION FOR EDUCATION

January 6, 2010

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

Dear Secretary Duncan,

Lumina Foundation for Education supports the Indiana Department of Education's Race to the Top grant application. Lumina Foundation's mission to increase access to postsecondary education is consistent with the outcomes outlined in the Race to the Top grant program. The Foundation has provided monetary support to the state to coordinate advisory members from higher education and nonprofit organizations. Because I believe this is a timely, well-crafted plan to improve Indiana's schools, I've also personally participated in recruiting support for the application.

The federal Race to the Top competitive grant has the potential to invigorate and expedite reform efforts throughout the nation, and already has helped drive many bold changes in Indiana. Indiana is taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by the Race to the Top - areas Lumina Foundation strongly supports: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools.

In total, Indiana has made significant progress in fostering a reform-ready environment targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout the nation. In particular, we believe these reforms position our schools to better prepare students for the challenges of the modern workforce, to close the achievement gap, and to increase graduation rates.

As an education funder, we know that this is a critical time to improve the performance of our schools. Low-income, first-generation, students of color are not entering or succeeding in college at high enough rates to keep the United States globally competitive. Secondary schools build the pipeline and schools are the nucleus of any community, and the entire community stands to gain from better schools. With that in mind, Lumina Foundation is committed to standing behind the IDOE's Race-to-the-Top application and its plan to provide Hoosier students an education that is among the best in the nation and the world.

Winning the Race to the Top money will only increase the magnitude and speed of change in Indiana. I am confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Jill Robinson Kramer

Jill Robinson Kramer

Helping People Achieve Their Potential®

The image part with relationship ID rId30 was not found in the file.

BioCrossroads®

January 4, 2010

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

Dear Secretary Duncan:

BioCrossroads, Indiana's life and health sciences economic development initiative, supports the Indiana Department of Education's Race to the Top grant application. We believe that continued K-12 education reform is vital to the economic future of our state and that we have a reform-minded Superintendent of Public Instruction and Governor who can vigorously implement this grant.

As the automotive industry continues to shed jobs in Indiana, the life and health sciences have become Indiana's largest economic cluster. In order to continue to grow and attract the qualified workforce needed for these high-knowledge jobs, Indiana must provide strong K-12 preparation that prepares its graduates for the necessary post-secondary training required in this industry.

The four focus areas of Indiana's grant submission – internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools – represent a practical roadmap for K-12 education reform in Indiana. These focus areas will allow Indiana to better prepare students for the challenges of the 21st Century workforce, to close the achievement gap, and to increase high school graduation rates. These are all critical indicators for the future economic vitality of our state and its communities.

As leaders in innovation and entrepreneurship in our state, we recognize that maintaining the status quo in K-12 education is unacceptable to the future of the life and health sciences cluster and our remaining advanced manufacturing enterprises. We are committed to supporting the work of the Indiana Department of Education in implementing this grant and helping to raise the bar for our state in the global competition for talent and innovation.

The energy and commitment of Governor Mitch Daniels and State Superintendent Dr. Tony Bennett make Indiana a state ripe for more rapid education reform. BioCrossroads' support for more rigorous STEM education, science education reform, Advanced Placement expansion, and Teach for America have contributed in a small way to this growing environment of change in our K-12 system. We know that your investment in a Race to the Top grant to Indiana would result in productive change and economic opportunity for our state.

Very best regards,

Anne K. Shane

Anne K. Shane
Vice President

300 North Meridian Street Suite 950 Indianapolis, IN 46204 p 317.238.2450 f 317.238.2451 www.biocrossroads.com

CICP
LEADERSHIP
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December 17, 2009

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

Dear Secretary Duncan:

The Central Indiana Corporate Partnership ("CICP") supports the Indiana Department of Education's Race to the Top grant application. We believe this is a timely, well-crafted plan to improve Indiana's schools.

Never before has the U.S. Department of Education made reform-minded competition the prerequisite for receiving funding. The federal Race to the Top competitive grant has the potential to invigorate and expedite reform efforts throughout the nation and already has helped drive many bold changes in Indiana.

Indiana is taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by Race to the Top, areas CICP strongly supports: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction and dramatic turnarounds for our worst-performing schools.

In total, Indiana has made significant progress in fostering a reform-ready environment targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout the nation. In particular, we believe these reforms position our schools to better prepare students for the challenges of the modern workforce, to close the achievement gap and to increase graduation rates.

As an organization of Central Indiana business leaders, CICP recognizes that maintaining the status quo in education is unacceptable. Schools are the nucleus of any community, and the entire community stands to gain from better schools. With that in mind, CICP is committed to standing behind the IDOE's Race to the Top application and its plan to provide Hoosier students an education that is among the best in the nation and the world – and winning Race to the Top money will serve to enhance the magnitude and speed of change in Indiana.

We are confident that upon close examination you will find that Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Mark D. Miles
President & CEO

MDM:lw

Indiana Manufacturers Association

One American Square, Suite 2400, Box 82012 • Indianapolis, IN 46282 • (317) 632-2474 • (800) 462-7762 • FAX (317) 231-2320

To Whom It May Concern:

The Indiana Manufacturers Association supports the Indiana Department of Education's Race to the Top grant application. We believe this is a timely, well-crafted plan to improve Indiana's schools.

Never before has the U.S. Department of Education made reform-minded competition the prerequisite for receiving funding. The federal Race to the Top competitive grant has the potential to invigorate and expedite reform efforts throughout the nation and already has helped drive many bold changes Indiana.

Indiana is taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by Race to the Top areas. The Indiana Manufacturers Association strongly supports: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction and dramatic turnarounds for our worst-performing schools.

In total, Indiana has made significant progress in fostering a reform-ready environment targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout the nation. In particular, we believe these reforms position our schools to better prepare students for the challenges of the modern workforce, to close the achievement gap and to increase graduation rates.

As a statewide trade association of more than 109 years, whose members employ nearly 500,000 of the best trained workers to be found anywhere, we recognize that maintaining the status quo in education is unacceptable. Schools are the nucleus of any community's future, and the entire community stands to gain from better schools. With that in mind, we are committed to standing behind the IDOE's Race to the Top application and plan to provide Hoosier students an education that is among the best in the nation and the world.

Winning Race to the Top money will only increase the magnitude and speed of change in Indiana. We are confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Patrick J. Kiely
President

Indiana's Leading Voice for Industry

www.imaweb.com

Indianapolis
Urban League

777 Indiana Avenue
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Phone: 317-693-7603
Fax: 317-693-7613
Web Address:
www.indplsul.org

Empowering Communities.
Changing Lives.

December 21, 2009

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

Dear Secretary Duncan,

The Indianapolis Urban League supports the Indiana Department of Education's Race to the Top grant application. I believe this is a timely, well-crafted plan to improve Indiana's schools.

Never before has the U.S. Department of Education made reform-minded competition the prerequisite for receiving funding. The federal Race to the Top competitive grant has the potential to invigorate and expedite reform efforts throughout the nation, and already has helped drive many bold changes in Indiana.

Indiana is taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by the Race to the Top initiatives that the Indianapolis Urban League strongly supports: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools, an area that the Indianapolis Urban league can be a part of.

In total, Indiana has made significant progress in fostering a reform-ready environment targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout the nation. In particular, we believe these reforms position our schools to better prepare students for the challenges of the modern workforce, to close the achievement gap, and to increase graduation rates.

As a community organization we recognize that maintaining the status quo in education is unacceptable. Schools are the nucleus of any community, and the entire community stands to gain from better schools. With that in mind, we are committed to standing behind the IDOE's Race-to-the-Top application and its plan to provide Hoosier students an education that is among the best in the nation and the world.

Winning the Race to the Top money will only increase the magnitude and speed of change in Indiana.

The Indianapolis Urban League is confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Joseph A. Slash
President & CEO

United Way
United Way
of Central Indiana

INDIANA AVENUE

January 6, 2010

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

Dear Secretary Duncan,

The Indiana Science, Technology, Engineering, and Mathematics (I-STEM) Resource Network supports the Indiana Department of Education's Race to the Top grant application. We believe this is a well-crafted plan to improve Indiana's schools.

I-STEM is a consortium of 19 institutions of higher education, business, K-12 schools, and government agencies that will support Indiana as we work to address important issue in student STEM achievement. All of our partners strongly support Indiana's plan to advance K-12 students and schools by focusing on the four areas of reform outlined by the Race to the Top areas: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools. I-STEM is pleased at the STEM competitive preference priority in the Race to the Top grant and Indiana's proposal to address this need. We stand ready to work with the Indiana Department of Education to make Indiana a national and world leader in STEM education.

Indiana is making significant progress in fostering a reform-ready environment targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout the nation. In particular, we believe these reforms position our schools to better prepare students for the challenges of the modern workforce, to close the achievement gap, and to increase graduation rates.

I-STEM recognizes that maintaining the status quo in education is unacceptable. Schools are the nucleus of any community and the entire community stands to gain from better schools. With that in mind, we are committed to standing behind the Indiana Department of Education's Race-to-the-Top application and its plan to provide Hoosier students an education that is among the best in the nation and the world. Being awarded Race to the Top money will only increase the magnitude and speed of change in Indiana.

We are confident that upon close examination, you will find Indiana is becoming a national leader in education reform—and is a state ready to transform education for every student.

Sincerely,

William S. Walker III

William S. Walker
Executive Director, I-STEM Resource Network

Felix Haas Hall • 250 N. University Street • West Lafayette, IN 47907-2066
Phone: (765) 494-2757 • Fax: (765) 494-2026 • http://www.istemnetwork.org

La Plaza
• Serving • Educating • Celebrating • Connecting

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December 21, 2009

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

Dear Secretary Duncan,

La Plaza supports the Indiana Department of Education's Race to the Top grant application. We believe this is a timely, well-crafted plan to improve Indiana's schools.

Never before has the U.S. Department of Education made reform-minded competition the prerequisite for receiving funding. The federal Race to the Top competitive grant has the potential to invigorate and expedite reform efforts throughout the nation, and already has helped drive many bold changes in Indiana.

Indiana is taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by the Race to the Top - areas La Plaza strongly supports: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools.

In total, Indiana has made significant progress in fostering a reform-ready environment targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout the nation. In particular, we believe these reforms position our schools to better prepare students for the challenges of the modern workforce, to close the achievement gap, and to increase graduation rates.

As a community organization, La Plaza recognizes that maintaining the status quo in education is unacceptable. Schools are the nucleus of any community, and the entire community stands to gain from better schools. With that in mind, we are committed to standing behind the IDOE's Race-to-the-Top application and its plan to provide Hoosier students an education that is among the best in the nation and the world.

Winning the Race to the Top money will only increase the magnitude and speed of change in Indiana.

We are confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Miriam Acevedo Davis
Executive Director

New Teacher Center

Launching the Next Generation

January 6, 2010

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

Dear Secretary Duncan:

The New Teacher Center supports the Indiana Department of Education's Race to the Top grant application. We believe this is a timely, well-crafted plan to improve Indiana's schools.

Never before has the U.S. Department of Education made reform-minded competition the prerequisite for receiving funding. The federal Race to the Top competitive grant has the potential to invigorate and expedite reform efforts throughout the nation, and already has helped drive many bold changes in Indiana.

Indiana is taking full advantage of this unprecedented opportunity for students and schools by focusing on the four areas of reform outlined by the Race to the Top: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools. The New Teacher Center strongly supports these areas of reform.

Indiana has made significant progress in fostering a reform-ready environment targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout the nation. We believe these reforms position our schools to better prepare students for the challenges of the modern workplace, to close the achievement gap, and to increase graduation rates.

As a non-profit organization dedicated to improving student achievement by accelerating teacher and administrator effectiveness, we recognize that simply maintaining the status quo in education is unacceptable. Schools are the nucleus of all communities, and both the community and the nation stand to gain from better schools. With that in mind, we want to support the IDOE's Race-to-the-Top application and its plan to provide Hoosier students an education that is among the best in the nation and the world.

Winning the Race to the Top money will increase the magnitude and speed of change in Indiana. We are confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Janet K. Gless

Janet Gless
Associate Director

www.newteachercenter.org

Phone: 831.600.2200 | Fax: 831.427.9017 | info@newteachercenter.org | 725 Front Street, Suite 400, Santa Cruz, CA 95060

The Mind Trust

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317 822 8102 phone - 317 822 8149 fax
info@themindtrust.org - themindtrust.org

January 8, 2010

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

Dear Secretary Duncan,

I am writing to offer my strong support of the Indiana Department of Education's Race to the Top grant application. As the President and CEO of The Mind Trust, an Indianapolis based non-profit that supports education entrepreneurship and reform, I work closely with Dr. Bennett and his team on a variety of initiatives. I am deeply impressed by Dr. Bennett's vision for education reform in Indiana; he and his staff are top-flight and have written a timely, well-crafted plan to dramatically improve Indiana's schools.

Under the leadership of Dr. Bennett, Indiana has already taken bold actions to improve our education system. The state has increased the number of high-quality alternative routes for teacher certification by supporting Teach For America, The New Teacher Project, and the Woodrow Wilson Teaching Fellowship. The IDOE has proposed major overhauls to teacher training and certification requirements that will dramatically improve the quality of our new teachers. And Dr. Bennett has focused the state's attention on Race to the Top to further advance important systemic reform initiatives.

Dr. Bennett, the IDOE, and other state leaders are taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by the Race to the Top. I am particularly impressed by the state's proposals to improve teacher quality and turn around our lowest-performing schools as these areas are of critical importance to the initiatives that The Mind Trust supports. The state has embraced the Race to the Top priority areas and the IDOE has an excellent plan for implementation.

Furthermore, as the former Charter Schools Director for Democratic Mayor of Indianapolis Bart Peterson, I have been impressed by the IDOE's efforts to work across party lines to come up with the best reform package possible. Ours is a bi-partisan effort, strengthening our prospects for long-term success.

Gary
Chamber
of
Commerce

December 28, 2009

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

Dear Secretary Duncan,

The Gary Chamber of Commerce supports the Indiana Department of Education's Rac e to the Top grant application. We believe this is a timely, well-crafted plan to improve Indiana's schoo s.

Never before has the U.S. Department of Education made reform-minded competitio the prerequisite for receiving funding. The federal Race to the Top competitive grant has the potentia to invigorate and expedite reform efforts throughout the nation, and already has helped drive many bc d changes in Indiana.

Indiana is taking full advantage of this unprecedented opportunity for our students a d schools by focusing on the four areas of reform outlined by the Race to the Top - areas the Gary Chamber of Commerce strongly supports: internationally benchmarked academic standards, recr itment and retention of effective teachers, data systems that drive instruction, and dramatic turr arounds for our worst-performing schools.

In total, Indiana has made significant progress in fostering a reform-ready environme it targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout t e nation. In particular, we believe these reforms position our schools to better prepare students or the challenges of the modern workforce, to close the achievement gap, and to increase graduation ates.

As a community organization, we recognize that maintaining the status quo in educa ion is unacceptable. Schools are the nucleus of any community, and the entire community stands to gain from better schools. With that in mind, we are committed to standing behind the IDOE's I ace-to-the-Top application and its plan to provide Hoosier students an education that is among the b est in the nation and the world.

Winning the Race to the Top money will only increase the magnitude and speed of cl ange in Indiana.

■ 839 Broadway, Gary IN 46402 ■ 219-885-7407 ■ Fa : 219-885-7408 ■
www.garychamber.com ■ E-mail:garychamber@gar chamber.com

01/06/2010 10:37 FAX 2199775200 003

We are confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Charles "Chuck" Hughes

Charles M. Hughes
Executive Director

01/06/2010 10:37 FAX 2199775200 004

www.lilly.com

Eli Lilly and Company
Lilly Corporate Center
Indianapolis, IN 46285
U.S.A.

Phone 317 276 2000

January 14, 2010

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

Dear Secretary Duncan,

Eli Lilly and Company supports the Indiana Department of Education's Race to the Top grant application. We believe this is a timely, well-crafted plan to improve Indiana's schools.

Never before has the U.S. Department of Education made reform-minded competition the prerequisite for receiving funds. The Race to the Top competitive grant has the potential to invigorate and expedite reform efforts throughout the nation, and already has helped drive many bold changes in Indiana.

Indiana is taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by the Race to the Top areas. Lilly strongly supports these reforms for Indiana: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools.

In total, Indiana has made significant progress in fostering a reform-oriented environment in each of these areas. It is our belief that these changes are essential for Indiana and the nation. In particular, we believe these reforms position our schools to better prepare students for the challenges of the modern workforce, to close the achievement gap, and to increase graduation rates.

As a business highly dependent upon science and innovation, Lilly believes that improving education is a critically important priority. With that in mind, we are committed to standing behind the IDOE's Race-to-the-Top application and its plan to provide Hoosier students an education that is among the best in the nation and the world.

Indiana leaders have been able to work together to drive initial reforms. Winning the Race to the Top money will only increase the magnitude and speed of change in Indiana. We are confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Bart Peterson
Senior Vice President
Corporate Affairs and Communications

Robert L. Smith
President, Eli Lilly and Company Foundation
Sr. Director, Corporate Responsibility

IndianaChamber
The Voice of Indiana Business.®
Kevin M. Brinegar
President

January 15, 2010

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

Dear Secretary Duncan:

The Indiana Chamber of Commerce is pleased to offer its complete support for the Indiana Department of Education's Race to the Top grant application.

Under the leadership of State Superintendent Tony Bennett, and with strong support from Governor Mitch Daniels, Indiana is uniquely positioned to take full advantage of the Race to the Top program and to be a leading state in the critical education reforms advocated by President Obama and his Administration.

In just his first year in office, Dr. Bennett already has made substantial progress in several key areas:

- Expanding Indiana's strong charter school law and laying additional groundwork with authorizers and others to expand charter school growth in coming years;
- Initiating a successful effort to update Indiana's teacher training and licensing rules;
- Completing a long-promised transition to value-added assessments;
- Advancing Indiana's data collection capabilities; and
- Establishing a bold and comprehensive plan for addressing Indiana's chronically failing schools.

Race to the Top already has contributed to these successes, as the grant guidelines have helped our education leaders to build consensus around these and other key initiatives; and importantly, Governor Daniels and Superintendent Bennett have made clear that these substantial advances are merely the beginning of their efforts. The federal Race to the Top grant will provide a critical catalyst and support to those on-going efforts.

As the state's largest business association, the Indiana Chamber of Commerce is committed to the bold education reform agenda that has been concurrently advanced by President Obama, Secretary Duncan, Governor Daniels and Superintendent Bennett. Nothing is more critical to the future economic health of our state and our country.

Race to the Top has the potential to drive changes that have been far too elusive for far too long; and Indiana has the potential to demonstrate a magnitude and speed of change that can be a model for the entire country. We are anxious to assist with these efforts and are confident that Indiana's proposal, if funded, will make Indiana a national leader in education reform—and provide new opportunities for every student in our state.

Sincerely,

Kevin Brinegar
President

115 West Washington Street, Suite 850S P.O. Box 44926 Indianapolis, Indiana 46244-0926 voice: 317-264-3110 fax: 317-264-6855 web: www.indianachamber.com

OLD NATIONAL BANK

Robert G. Jones
President and CEO
bob.jones@oldnational.com

January 7, 2010

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

Dear Secretary Duncan,

Old National Bank supports the Indiana Department of Education's Race to the Top grant application. I believe this is a timely, well-crafted plan to improve Indiana's schools.

Never before has the U.S. Department of Education made reform-minded competition the prerequisite for receiving funding. The federal Race to the Top competitive grant has the potential to invigorate and expedite reform efforts throughout the nation, and already has helped drive many bold changes in Indiana.

Indiana is taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by the Race to the Top - areas Old National strongly supports: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools.

In total, Indiana has made significant progress in fostering a reform-ready environment targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout the nation. In particular, we believe these reforms position our schools to better prepare students for the challenges of the modern workforce, to close the achievement gap, and to increase graduation rates.

As a business leader, I recognize that maintaining the status quo in education is unacceptable. Schools are the nucleus of any community, and the entire community stands to gain from better schools. With that in mind, I am committed to standing behind the IDOE's Race-to-the-Top application and its plan to provide Hoosier students an education that is among the best in the nation and the world.

Winning the Race to the Top money will only increase the magnitude and speed of change in Indiana.

I am confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Robert G. Jones
President and CEO

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VECTREN

Niel C. Ellerbrook
Chairman and Chief Executive Officer

Vectren Corporation
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Tel: 812 491 4201
Fax: 812 491 4169
nellerbrook@vectren.com

January 7, 2010

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

Dear Secretary Duncan,

Vectren Corporation supports the Indiana Department of Education's Race to the Top grant application. We believe this is a timely, well-crafted plan to improve Indiana's schools.

Never before has the U.S. Department of Education made reform-minded competition the prerequisite for receiving funding. The federal Race to the Top competitive grant has the potential to invigorate and expedite reform efforts throughout the nation, and already has helped drive many bold changes in Indiana.

Indiana is taking full advantage of this unprecedented opportunity for our students and schools by focusing on the four areas of reform outlined by the Race to the Top - areas Vectren Corporation strongly supports: internationally benchmarked academic standards, recruitment and retention of effective teachers, data systems that drive instruction, and dramatic turnarounds for our worst-performing schools.

In total, Indiana has made significant progress in fostering a reform-ready environment targeted in each of these areas. It is our belief these changes are overdue in Indiana and throughout the nation. In particular, we believe these reforms position our schools to better prepare students for the challenges of the modern workforce, to close the achievement gap, and to increase graduation rates.

As a business, we recognize that maintaining the status quo in education is unacceptable. Schools are the nucleus of any community, and the entire community stands to gain from better schools. With that in mind, we are committed to standing behind the IDOE's Race-to-the-Top application and its plan to provide Hoosier students an education that is among the best in the nation and the world.

Winning the Race to the Top money will only increase the magnitude and speed of change in Indiana.

We are confident that upon close examination, you will find Indiana is a national leader in education reform—a state ready to transform education for every student.

Sincerely,

Niel C. Ellerbrook

Niel C. Ellerbrook

B-1: COMMON CORE STANDARDS CONSORTIUM 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 of standards (see attached timeline). These organizations represent governors and state commissioners of education who are charged with defining K-12 expectations at the state level.

As such, these organizations will facilitate a state-led process to develop common core standards in English language arts and mathematics that are:

- Fewer, clearer, and higher, to best drive effective policy and practice;
- Aligned with college and work expectations, so that all students are prepared for success upon graduating from high school;
- Inclusive of rigorous content and application of knowledge through high-order skills, so that all students are prepared for the 21st century;
- Internationally benchmarked, so that all students are prepared for succeeding in our global economy and society; and
- Research and evidence-based.

☐ **National Validation Committee.** CCSSO and the NGA Center will create an expert validation group that will serve a several purposes, including validating end-of-course expectations, providing leadership for the development of K-12 standards, and certifying state adoption of the common core standards. The group will be comprised of national and international experts on standards. Participating states will have the opportunity to nominate individuals to the group. The national validation committee shall provide an independent review of the common core standards. The national validation committee will review the common core as it is developed and offer comments, suggestions, and validation of the process and products developed by the standards development group. The group will use evidence as the driving factor in validating the common core standards.

☐ **Develop End-of-High-School Expectations.** CCSSO and the NGA Center will convene Achieve, ACT and the College Board in an open, inclusive, and efficient process to develop a set of end-of–high-school expectations in English language arts and mathematics based on evidence. We will ask all participating states to review and provide input on these expectations. This work will be completed by July 2009.

☐ **Develop K-12 Standards in English Language Arts and Math.** CCSSO and the NGA Center will convene Achieve, ACT, and the College Board in an open, inclusive, and efficient process to develop K-12 standards that are grounded in empirical research and draw on best practices in standards development. We will ask participating states to provide input into the drafting of the common core and work as partners in the common core standards development process. This work will be completed by December 2009.

☐ **Adoption.** The goal of this effort is to develop a true common core of state standards that are internationally benchmarked. Each state adopting the common core standards either directly or by fully aligning its state standards may do so in accordance with current state timelines for standards adoption not to exceed three (3) years.

This effort is voluntary for states, and it is fully intended that states adopting the common core standards may choose to include additional state standards beyond the common core standards. States that choose to align their standards to the common core standards agree to ensure that the common core represents at least 85 percent of the state's standards in English language arts and mathematics.

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

- ☐ **National Policy Forum.** CCSSO and the NGA Center will convene a National Policy Forum (Forum) comprised of signatory national organizations (e.g., the Alliance for Excellent Education, Business Roundtable, National School Boards Association, Council of Great City Schools, Hunt Institute, National Association of State Boards of Education, National Education Association, and others) to share ideas, gather input, and inform the common core standards initiative. The forum is intended as a place for refining our shared understanding of the scope and elements of a common core; sharing and coordinating the various forms of implementation of a common core; providing a means to develop common messaging between and among participating organizations; and building public will and support.

- ☐ **Federal Role.** The parties support a state-led effort and not a federal effort to develop a common core of state standards; there is, however, an appropriate federal role in supporting this state-led effort. In particular, the federal government can provide key financial support for this effort in developing a common core of state standards and in moving toward common assessments, such as through the Race to the Top Fund authorized in the American Recovery and Reinvestment Act of 2009. Further, the federal government can incentivize this effort through a range of tiered incentives, such as providing states with greater flexibility in the use of existing federal funds, supporting a revised state accountability structure, and offering financial support for states to effectively implement the standards. Additionally, the federal government can provide additional long-term financial support for the development of common assessments, teacher and principal professional development, other related common core standards supports, and a research agenda that can help continually improve the common core standards over time. Finally, the federal government can revise and align existing federal education laws with the lessons learned from states' international benchmarking efforts and from federal research.

Agreement. The undersigned state leaders agree to the process and structure as described above and attest accordingly by our signature(s) below.

Signatures
Governor: M E Daniels Jr
Chief State School Officer:

B-2: COPY OF DRAFT OF COMMON CORE STANDARDS AND ANTICIPATED DATE FOR COMPLETION

Introduction

The *Standards for English Language Arts K–12* are the culmination of an extended, broad-based effort to fulfill the charge issued by the states to create the next generation of English language arts (ELA) standards. Its companion document, *Standards for Literacy in History and Science 6–12*, extends the same principle to communication skills in other content areas. The present work, led by the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA), builds on the foundation laid by states in their decades-long work on crafting high-quality education standards. The *Standards* also draw upon the most important international models as well as research and input from numerous sources, including scholars, assessment developers, professional organizations, and educators from kindergarten through college. In their design and content, the *Standards* represent a synthesis of the best elements of standards-related work to date and an important advance over that previous work.

As specified by CCSSO and NGA, the *Standards* are (1) research and evidence based, (2) aligned with college and work expectations, (3) rigorous, and (4) internationally benchmarked. A particular standard was to be included in the document only when the best available evidence indicated that its mastery was essential for students to be college and career ready in a twenty-first-century, globally competitive society. As new and better evidence emerges, the *Standards* will be revised accordingly.

The *Standards* are an extension of a prior initiative led by CCSSO and NGA to develop college and career readiness (CCR) standards in reading, writing, and speaking and listening as well as in mathematics. The CCR Reading, Writing, and Speaking and Listening Standards, released in draft form in September 2009, served as a touchstone for the present work. While the format, structure, content, and purpose of that earlier document differ in some ways from this document, the basic aims and concepts are clearly connected. The main difference is that while the earlier CCR document defined a goal toward which education efforts should aim—college and career readiness for all students—the current document describes the progressive development of skills and understandings across the grades necessary for all students to reach that goal. Just as feedback on the September 2009 CCR draft has greatly influenced the design and development of the K–12 standards, so too will the response to the K–12 standards help guide subsequent revisions to the CCR standards. In their final forms, both documents—CCR and K–12—will be tightly aligned and mutually supporting.

While the *Standards* treat college and career readiness for all students as the end point—an ambitious goal in its own right—many students will reach this point before the end of high school. For them, advanced work in literature, composition, language, history, science, and so on should be available. It is beyond the scope of the *Standards* to describe what such advanced work should consist of, but it needs to provide the next logical step up from the college and career readiness baseline established here.

As a natural outgrowth of meeting the charge to define college and career readiness, the *Standards* also lay out a vision of what it means to be a literate person in the twenty-first century. Indeed, the skills and understandings students must demonstrate have broad applicability outside of the classroom or workplace. The *Standards* insist upon the sort of close, attentive reading that is at the heart of understanding and appreciating the aesthetics of literature. They require the sort of critical reading that is necessary to sift carefully through the staggering amount of information available today in print and online. They demand the sort of wide, deep, and thoughtful engagement with high-quality literary and informational text that builds knowledge, enlarges experience, and broadens world views. They mandate the sort of cogent reasoning and use of evidence that is essential to both private deliberation and responsible citizenship in a democratic republic. In short, they promote the development of skills in reading, writing, speaking, and listening that are the foundation for any creative and purposeful expression in language.

Key design considerations

A blend of cross-cutting and specific standards

The Reading, Writing, and Speaking and Listening strands include two levels of standards. The cross-cutting Core Standards are the same across the two *Standards* documents, their commonality emphasizing the broad responsibility within the school for meeting the standards and also facilitating schoolwide professional development. Then there are specific Standards that are unique to a given content area, which respects the particular demands of reading, writing, speaking, and listening in ELA and in other disciplines.

A focus on results rather than means

The *Standards* define what all students must learn, not everything that teachers are allowed to teach. By focusing on required achievements, the *Standards* leave room for teachers, curriculum developers, and states to determine how those goals should be reached and what additional topics should be addressed. The *Standards* require, for example, that all students be able to produce writing in a variety of situations, including those that allow time for revision. The *Standards* do not, however, specify a particular writing process that students must use (although certain elements common to process-writing approaches, particularly revision, are embedded in the requirements). Teachers are thus freed—and obligated—to provide students with whatever tools and knowledge their professional judgment and experience identify as most helpful for those assignments that allow for multiple drafts. Similarly, the *Standards*, with their emphasis on observable outcomes, do not enumerate various metacognitive strategies that students may need to use to monitor and direct their thinking and learning.

Shared responsibility for literacy

The *Standards for English Language Arts K–12* and the *Standards for Literacy in History and Science 6–12* together establish the requirement that instruction in reading, writing, speaking, listening, and language use be a shared responsibility. The *Standards* present reading instruction in K–5 as fully integrative, including a rich blend of narratives, drama, poetry, and informational text. ELA-specific instruction in grades 6 and above includes fiction, poetry, and drama but also a particular form of informational text: literary exposition and argument (e.g., speeches, essays, and historical documents with significant cultural importance and literary merit). Teachers in other content areas must use their unique disciplinary expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language use in their respective field. Progress toward college and career readiness and building a rich knowledge base require that at least half of the reading students do must focus on history, science and related disciplines. This distributed approach honors the unique place of English language arts instruction in literacy development while ensuring that students have communication skills tailored to the demands of other disciplines. It also reflects the reality that students must communicate effectively in a wide range of disciplines, not just ELA.

Grade bands to describe growth, grades to focus instruction

Evidence consulted in creating the *Standards* suggests that beyond the earliest grades, major developments in students' literacy skills typically occur across spans of grades rather than within individual grades. This document stays true to that evidence by organizing standards after grade 3 into multiyear bands (grades 4–5, 6–8, 9–10, and 11–CCR). At the same time, the work of educating students does proceed on a day-to-day, year-to-year basis. Any standards document must therefore provide guidance to educators on what each year's instruction and assessment should look like. To make the grade specific focuses for instruction clear, after the descriptions of the standards in each area of ELA, we provide a one page summary of the grade specific focuses for each grade from fourth grade onwards, including how the grade specific focus in each area relates to the grade band requirements. The Standards offer that focus through several grade-specific elements:

- Single-grade standards in many areas of kindergarten and grades 1, 2, and 3
- Text complexity expectations in Reading, beginning at grade 2
- Areas of focus in Writing, beginning at grade 4

- Areas of focus in the Conventions section of Language Development, beginning at grade 4

Research and media skills integrated into the standards as a whole

To be ready to meet the challenges of the twenty-first century, students need a mix of the communication skills that have served literate people for millennia and new competencies necessary in an information- and media-saturated world. To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, report on, and create a high volume and extensive range of print and nonprint texts in media forms old and new. Just as the need to research and to consume and produce media are embedded into every element of today's curriculum, so too are the associated skills and understandings embedded throughout the *Standards* rather than treated separately. Web links to sample media texts are included selectively among the reading text exemplars in Appendix B to reinforce the point that print and online materials can be used together instructionally to enhance students' understanding.

An integrated model of English language arts

Although the *Standards* divide the English language arts into Reading, Writing, Speaking and Listening, and Language Development strands for conceptual purposes, the processes of communication are in theory and practice an undivided whole. As illustrated in the graphic that introduces each grade or grade band and as embodied in the content of the standards themselves, reading, writing, speaking, listening, and language development are tightly interrelated and often reciprocal.

Central features of the document

Reading and Literature: Text complexity and the growth of comprehension

As students advance through the grades, they must be able to handle independently texts of steadily increasing complexity and be able to gain more from what they read. Beginning formally at grade 2, the *Standards* specify what proportion of texts students read should be within grade band and, at some grades, above grade band. (Additional material in Appendix A of the *Standards* defines and explains text complexity in more detail.) Whatever texts they are reading, students must also show a steadily increasing ability to discern more from and make fuller use of text. This means, for example, finding and making an increasing number of connections among ideas and between texts; considering a wider range of textual evidence; and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts. The *Standards* place growing demands on students' comprehension at each higher grade or grade band to ensure that all students are college- and career-ready readers no later than the end of high school.

Writing and Research: Text types, grade-level focuses, and research

While some writing skills, such as the ability to reflect audience, purpose, and task in what one writes, are important for many types of writing, others are more properly part of writing in specific text types: narrative, informative and explanatory text, and argument. Beginning at grade 4, the *Standards* specify the sorts of writing over extended and shorter timeframes that students in each grade must be able to produce in response to sources. Although conducting research calls upon reading, speaking, listening, and language skills, writing is typically central to analyzing information and presenting findings. The *Standards* pair writing and research to signal that close connection.

Speaking and Listening: Flexible communication

Including but not limited to skills necessary for formal presentations, the Speaking and Listening strand requires students to develop a range of broadly useful oral communication and interpersonal skills: listening attentively, participating productively, exchanging information, and speaking effectively. Students must learn to sift through and evaluate multiple points of view; listen thoughtfully in order to build on and constructively question the ideas of others while contributing their own ideas; and, where appropriate, reach agreement and common goals through teamwork.

Language Development: Conventions and vocabulary

The Conventions standards in the Language Development strand include the essential "rules" of formal written and spoken English, but they also approach language as a matter of craft and informed choice among alternatives. Thus, standards pertaining to grammar and usage, mechanics, and the fundamentals of language and writing are accompanied by standards on word choice and style. The Vocabulary standards focus both on understanding words and their nuances and on acquiring new words through conversation and reading and by being taught them directly. Rather than require that students use one particular skill or another to determine a word's meaning, the Vocabulary standards insist only that students get the proper meaning, with the means (context, word analysis, and so on) to be chosen flexibly based on the situation.

Appendices

The *Standards* include a range of supporting materials that help explain and enrich the main document:

- Appendix A contains a model of text complexity, including both qualitative and quantitative measures of how easy or hard a text is to read, as well as supplementary statements about instruction in writing, language conventions, and vocabulary
- Appendix B consists of text exemplars at all grades/bands to illustrate appropriate complexity and quality in the text types required by the Reading standards
- Appendix C consists of annotated writing samples to show how grade- or grade-band-appropriate writing embodies the relevant Writing standards

January 2010

Student Practices in Reading, Writing, Speaking, Listening, and Language Use

The following Student Practices in reading, writing, speaking, listening, and language use undergird and help unify the rest of the *Standards*. The Student Practices are not themselves standards: every idea introduced here is subsequently represented in one or more places within the larger document. They are, rather, the "premises"—broad statements about the nature of college and career readiness in reading, writing, speaking, listening, and language use—that underlie the individual standards and cut across the various sections of the document.

* * *

As students progress toward being college and career ready, they exhibit with increasing fullness and regularity the following capacities in their reading, writing, speaking, listening, and language use:

1. They demonstrate independence as readers, writers, speakers, listeners, and language users.

Students can, without significant scaffolding or support, comprehend and evaluate complex text across a range of types and disciplines, and they can construct effective arguments and clearly convey intricate or multifaceted information. Likewise, students are independently able to discern a speaker's key points as well as ask questions, build on others' ideas, and articulate their own ideas. They apply language conventions without prompting. On their own, they determine the meaning of words in context and acquire and use new words.

2. They build strong content knowledge.

Students build a base of knowledge across a wide range of subject matter by engaging with works of quality and substance. They demonstrate their ability to become proficient in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and the discipline-specific expertise needed to comprehend subject matter and solve problems in different fields. They refine their knowledge and share it through substantive writing and speaking.

3. They respond to the varying demands of audience, task, purpose, and discipline.

Students consider their reading, writing, speaking, listening, and language use in relation to the contextual factors of audience, task, purpose, and discipline. They appreciate nuances, such as how the composition and familiarity of the audience should affect tone and how the connotations of words affect meaning. They also know that different disciplines call for different types of evidence (e.g., documentary evidence in history, experimental evidence in the sciences).

4. They comprehend as well as critique.

Students are engaged and open-minded—but skeptical—readers and listeners. They work diligently to understand precisely what an author or speaker is saying, but they also question an author's or speaker's assumptions and assess the veracity of claims.

5. They privilege evidence.

Students cite specific evidence when offering an oral or written interpretation of a text. They use relevant evidence when supporting their own points in writing and speaking, making their reasoning clear to the reader or listener, and they constructively evaluate others' use of evidence.

6. They care about precision.

Students are mindful of the impact of specific words and details, and they consider what would be achieved by different choices. Students pay especially close attention when precision matters most, such as in the case of reviewing significant data, making important distinctions, or analyzing a key moment in the action of a play or novel.

7. They craft and look for structure.

Students attend to structure when organizing their own writing and speaking as well as when seeking to understand the work of others. They understand and make use of the ways of presenting information typical of different disciplines. They observe, for example, how authors of literary works craft the structure to unfold events and depict the setting.

8. They use technology strategically and capably.

Students employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

9. They come to understand other perspectives and cultures.

Students appreciate that the twenty-first-century classroom and workplace are diverse settings in which people from often widely divergent backgrounds must learn and work together. They actively seek to understand other perspectives and cultures through reading and listening. They do not simply adopt other points of view as their own but rather evaluate them critically and constructively. Literature can play a special role in expanding students' horizons in this way: through reading great classic and contemporary works, students can vicariously inhabit worlds and experiences much different than their own.

English Language Learners

The *Standards* articulate rigorous grade-level expectations in the areas of speaking, listening, reading and writing to prepare students to be college and career ready. English language learners (ELLs) must be held to the same high standards expected of students who are already proficient in English. However, because these students are acquiring English language proficiency and content area knowledge concurrently, some students will require additional time and all will require appropriate instructional support and aligned assessments.

ELLs are a heterogeneous group with differences in ethnic background, first language, socio-economic status, quality of prior schooling, and levels of English language proficiency. Effectively educating these students requires adjusting instruction and assessment in ways that consider these factors. For example ELLs who are literate in a first language that shares cognates with English can apply first-language vocabulary knowledge when reading in English; likewise ELLs with high levels of schooling can bring to bear conceptual knowledge developed in their first language when reading in a second language. On the other hand, ELLs with limited or interrupted schooling will need to acquire background knowledge prerequisite to educational tasks at hand. As they become acculturated to US schools, ELLs who are newcomers will need sufficiently scaffolded instruction and assessments to make sense of content delivered in a second language and display this content knowledge.

While some ELLs are economically and educationally advantaged, this is not the case for many of these students. Moreover, once in the U.S., the majority of ELLs attend high poverty schools with high percentages of other ELLs. These schools often lack the resources and capacity needed to help ELLs reach high academic standards. However, schools and districts can be assisted in providing a positive learning environment that capitalizes on the linguistic and cultural diversity of the student body.

To help ELLs meet high academic standards in reading, writing, speaking, listening and language use it is essential that ELLs have access to:

- The requisite coursework to prepare them for post-secondary education or the workplace;
- Coursework that is made comprehensible for students learning content in a second language, through specific pedagogical techniques and additional resources;
- Teachers, as well as school-level and district personnel, who are well prepared and qualified to support English-language learners;
- Well designed opportunities for classroom discourse and interaction to enable ELLs to develop communicative strengths in language arts
- Speakers of English who know the language well enough to provide the ELLs with models and support; and
- Ongoing assessment and feedback to guide learning.

It is also worth noting that instruction for these students is additionally guided by language proficiency standards that language arts teachers can use in conjunction with the English language arts standards to help ELLs become fully proficient and literate in English.

Access for Students with Disabilities

The *Standards* articulate rigorous expectations in the areas of reading, writing, speaking, listening, and language use in order to prepare students to be college and career ready. These standards identify the knowledge and skills students must acquire in order to be successful. Research shows that students with disabilities are capable of high levels of learning and should not be limited by low expectations and watered down curriculum. The vast majority of this population of students, including students with intellectual impairments,[1] *can* achieve proficiency when they receive high-level instruction and accommodations. It is imperative that these highly capable students—regardless of their disability—are held to the same expectations articulated in the Core Standards as other students.

However, *how* these high standards are taught is of the utmost importance in reaching students with special needs. When acquiring the knowledge and skills represented in the Core Standards, students with disabilities may need accommodations[2] or—in exceptional cases—modified goals, incorporated in an individualized education program (IEP),[3] to help them access information or demonstrate their knowledge. In instances when a standard asks students to perform actions they are physically incapable of, students will need to be presented with alternative options to demonstrate similar knowledge and skills within the range of their abilities. Accommodations based on individual needs allow students of all disability levels to learn within the framework of the *Standards*.

Meeting English Language Arts (ELA) Standards

Reading, writing, speaking, listening, and language use standards—given the nature of the standards themselves—often require accommodations for students with disabilities. For example, a standard that calls for "listening" should be interpreted to include reading sign language. "Speaking" should be read broadly to include "communication" or "self-expression." "Reading" should allow for students' use of Braille, screen reader technology, or other assistive devices to demonstrate comprehension skills. In a similar vein, "writing" should not preclude the use of a scribe, computer, or speech-to-text technology. With appropriate accommodations and support, students with all levels of disabilities can participate in the general education curriculum and achieve grade-level proficiency with regard to the ELA content and skills articulated in the *Standards*.

In short, while the *Standards* set and retain high expectations for all students, they may need to be translated and occasionally modified to apply appropriately to students with disabilities, including all levels of intellectual impairment. Promoting a culture of high expectations for all students is a fundamental goal of the *Standards*. Achieving this goal requires the inclusion of students with disabilities.

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[1] Less than two percent of the population of all students and less than 20% of the population of students with disabilities.

[2] See the Council of Chief State School Officers, (2003). *Training District and State Personnel on Accommodations: A Study of State Practices, Challenges, and Resources* at http://www.ccsso.org/publications/details.cfm?PublicationID=221 for further explanation and evidence around accommodations.

[3] According to the Individuals with Disabilities Act (IDEA), an IEP includes appropriate accommodations that are necessary to measure the individual achievement and functional performance of a child.

English Language Arts

Kindergarten

Reading and Literature Standards[5]

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Retell key details and information drawn from the text.
2. Explain the subject of the text or the problem the characters face.
3. Answer questions about characters and events that take place in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. retell the beginnings, middles, and endings of stories
b. ask and answer questions about details of a text
c. identify the problems that characters face in a story and the lessons learned
d. identify the feelings of characters and the reasons for their actions
e. differentiate between realistic and fantastical elements within a story

Informational Text

a. restate key information (e.g., events, subject, ideas) from a text
b. ask and answer questions about details of a text

Reading Foundations

Print Concepts

1. Students demonstrate understanding of the organization and basic features of print.
   a. identify basic features and conventions of books and other written texts (e.g., front cover, back cover, title, author)
   b. understand that print is left to right, top to bottom, and page by page
   c. understand that words are separated by spaces in print
   d. recognize and name all upper- and lowercase letters of the alphabet

Linguistic Awareness

2. Students gain awareness of spoken words, syllables, and phonemes.
   a. recognize, recite, and produce rhyming words
   b. count, pronounce, blend, and segment syllables in spoken words
   c. recognize, blend, and segment onset and rimes of spoken words [*/g/ - /oat/; /bl/ - /ock/*)
   d. count or place tokens for individual words in spoken phrases or simple sentences
   e. orally blend and segment individual phonemes in simple, one-syllable words
   f. demonstrate phonemic awareness by isolating and pronouncing the initial and final phonemes (sounds) in three-phoneme /CVC/ words without consonant blends (e.g., */road/*, */save/*, */ham/*)
   g. add or substitute individual phonemes in simple, one-syllable words to make new words (e.g., */at/* → */sat/* → */mat/* → */map/*)

[5] The expectation is that students can fulfill these standards with texts they read independently as well as texts that are read aloud to them.

Observing craft and structure

Core Standards — Students can and do:

4. Identify the meanings of words and phrases as they are used in the text.
5. Identify important parts or sections of texts.
6. Compare and contrast characters or events from different stories.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. identify words and phrases that suggest feelings or appeal to the senses
b. identify similarities in beginning and ending sounds of words in children's poems and songs
c. identify parts of a story and parts of a poem as well as sections of informational picture books and tell how they are different
d. identify common characteristics of folktales and fairy tales, including their use of rhyme, rhythm, and repetition
e. participate (e.g., react, speculate, read along, act out) when familiar texts are read aloud
f. compare and contrast characters or events from different stories written by the same author or written about similar subjects

Informational Text

a. identify basic text features and what they mean, including titles and subtitles, table of contents, and chapters

Reading Foundations, continued

Phonics and Word Recognition

3. Students know and apply grade-level phonics and word analysis skills in decoding words.
   a. demonstrate basic knowledge of letter-sound correspondences by producing the primary or most frequent sound for each consonant
   b. identify which letters represent the five major vowels and know the long and short sound of each
   c. blend letter-sounds to decode short-vowel CVC words (e.g., *cat*, *mop*, *sun*)
   d. read at least 25 very high frequency words by sight (e.g., *of*, *to*, *he*, *she*, *is*, *do*, *does*)

Developing Fluency

4. Students read with sufficient accuracy and fluency to support comprehension.
   a. read rebus and preprimer texts with purpose and understanding
   b. demonstrate increased accuracy and fluency on successive readings of a text

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Use text illustrations to predict or confirm what the text is about.
8. Identify words in a text that link ideas and events together.
9. Identify who is telling a story or providing information in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. use pictures, illustrations, and context to make predictions about and confirm story content
b. identify words in a story that link events together (e.g., *first/second*, *then*, *next*, *before/after*, *later*, *finally*)
c. identify who is the speaker in a story or poem

Informational Text

a. identify words that link ideas together (e.g., *also*, *in addition*, *for example*, *but*)
b. identify the author and sources of information when provided by the text

Developing habits for reading text

Core Standards — Students can and do:

10. Begin to read independently and/or with a partner, sustaining effort necessary to build understanding.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

3. With specific guidance, add details to strengthen writing through revision.

Using tools and technology

Core Standards — Students can and do:

4. Gain familiarity with technology and other tools to produce, revise, and edit writing.

Standards — Students can and do (by key text type):[6]

Narratives

a. establish a situation in time and/or place
b. recount several loosely linked actions in a short, familiar event, controlling for chronological order
c. provide a reaction to what happened

Informative and Explanatory Texts

a. establish the topic in a title or first sentence
b. supply facts and information relevant to the topic

Arguments (opinions)

a. introduce the topic directly, or use the title of a book when writing about a text
b. express preferences or opinions (e.g., *My favorite book is . . .*) relevant to the topic
c. provide a reason for preference or opinion (e.g., *It reminded me of when I met my friend Carlos*)
d. use linking words that express causality (e.g., *I like . . . because . . .*)

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in group activities requiring speaking and listening.
2. Listen closely to and sustain attention on texts read aloud as well as other sources of information presented orally, visually, or multi-modally and confirm understanding by restating the information and answering pertinent questions.

Standards — Students can and do (by key communication type):

Classroom discussions and participating productively

a. initiate and participate in conversations with peers and adults through multiple exchanges, attending to the comments of others
b. confirm understanding by restating information or answering questions about what has been discussed
c. ask questions to get information, ask for help, or clarify something that is not understood
d. follow norms for conversation, such as listening to others and taking turns to speak

Exchanging information and speaking effectively

Core Standards — Students can and do:

[6] See Appendix D for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

3. Share experiences and ideas that demonstrate an awareness of their listeners.
4. Speak audibly and clearly.

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. describe people, places, things, and events with relevant facts and examples
b. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

Language Development Standards

Conventions

In kindergarten, students learn to form letters and words in print and to relate sounds (phonemes) to one or more letters. They understand the notion of a sentence, that a sentence performs one of a few basic functions (make a statement, ask a question, or issue a command), and that end punctuation can signal the sentence's function or intensity. With prompting and assistance, they form and expand basic sentences in order to express thoughts, beginning the sentence with a capital letter. Students have a sense of what a noun is, of what singular and plural nouns are, and of how plural nouns are often formed. They also know how to use the most frequently occurring prepositions.

Key Terms: exclamation point, capital/uppercase and lowercase letter, singular and plural noun, period, punctuation, question mark, sentence

Conventions of language and writing

Core Standards — Students can and do:

1. Print all upper- and lowercase letters.
2. Write a letter or letters for each consonant and short-vowel sound (phoneme).

Grammar and usage

Core Standards — Students can and do:

3. Produce and expand complete sentences in shared writing and language activities.
4. Use and understand question words (e.g., *what*, *where*, *when*, *who*, *which*, *how*).
5. Form regular plural nouns by adding /s/ or /es/ (e.g., *dog*, *dogs*; *wish*, *wishes*; *baby*, *babies*).
6. Demonstrate understanding of the most frequently occurring prepositions (e.g., *to/from*, *in/out*, *on/off*, *for*, *of*, *by*, *with*).

Mechanics

Core Standards — Students can and do:

7. Capitalize the first word in a sentence and the pronoun *I*.
8. Identify end punctuation, including periods, question marks, and exclamation points.

9. Spell simple words phonetically using knowledge of sound-letter relationships.

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In kindergarten, students learn about words in terms of like versus unlike and "similar but not quite the same," using objects and movements as aids. They learn to use descriptive language to distinguish one object from another and order and position words to describe sequences and spatial relationships. They acquire new words through interactive language use, including informal talk, discussion, listening to and responding to texts read aloud as well as by being taught the words directly.

Determining the meaning of words

Core Standards — Students can and do:

1. Sort common objects into categories (e.g., shapes, foods).

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

2. Act out the meaning of verbs describing the same general action (e.g., *walk*, *march*, *strut*, *prance*) to gain a sense of their different meanings.
3. Demonstrate understanding of common adjectives by relating them to their opposites (antonyms).
4. Use common adjectives to distinguish objects (e.g., the *small blue* square, the *shy white* rabbit).

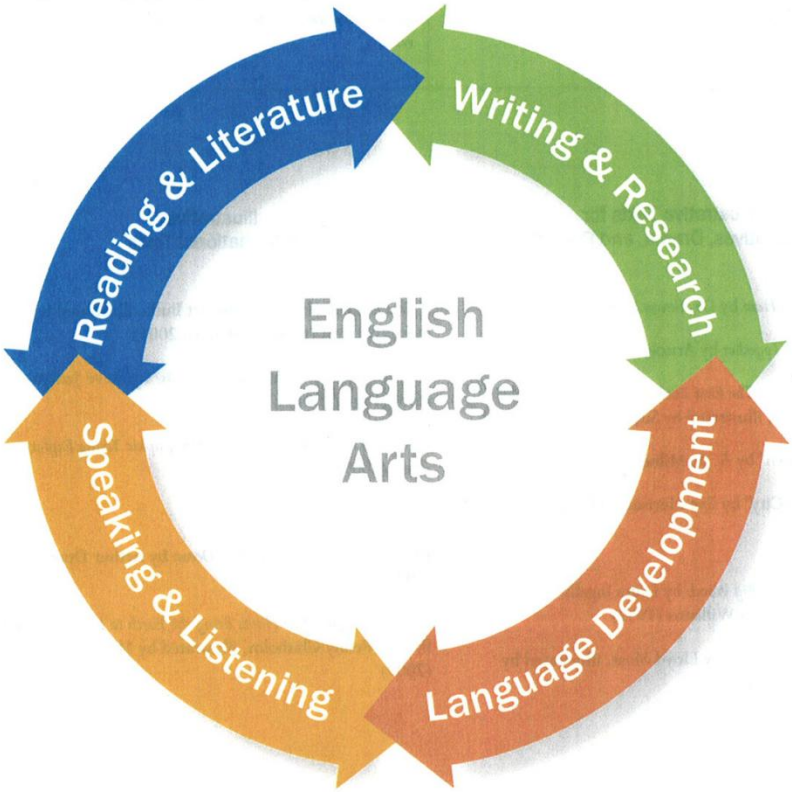
Acquiring vocabulary

Core Standards — Students can and do:

5. Demonstrate meaning of new vocabulary taught directly and gained through conversations and hearing texts read aloud.
6. Demonstrate understanding of words that express order and position (e.g., *first*, *middle*, *last*; *before*, *after*; *under*, *over*).

English Language Arts

Grade 1



Mix of Key Text Types for Grade 1

Narratives	Drama	Poetry	Informational Text
At this level, includes children's adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.	*At this level, includes staged dialogue and brief, familiar scenes.*	*At this level, includes nursery rhymes and the subgenres of narrative poems, limericks, and free verse.*	*At this level, includes books about science, history, and the arts and other nonfiction materials.*

Illustrative Texts for Narratives, Drama, and Poetry[7]

Green Eggs and Ham by Dr. Seuss (1960)

Frog and Toad Together by Arnold Lobel (1971)

Henry and Mudge: The First Book of Their Adventures by Cynthia Rylant, illustrated by Suçie Stevenson (1987)

"Halfway Down" by A. A. Milne (1924)

"It Fell in the City" by Eve Merriam (1986)

Read alouds:

Little House in the Big Woods by Laura Ingalls Wilder, illustrated by Garth Williams (1932)

Zin! Zin! Zin! a Violin by Lloyd Moss, illustrated by Marjorie Priceman (1995)

Illustrative Informational Texts

A Tree Is a Plant by Clyde Robert Bulla, illustrated by Stacey Schuett (text: 1960/illus: 2001)

What Do You Do With a Tail Like This? by Steve Jenkins & Robin Page (2003)

"Our Good Earth" in *National Geographic Young Explorer*, April (2009)

Read alouds:

Follow the Water from Brook to Ocean by Arthur Dorros (1991)

Living Sunlight: How Plants Bring the Earth to Life by Molly Bang & Penny Chisholm, illustrated by Molly Bang (2009)

[7] See Appendix C for other texts illustrative of Kindergarten-Grade 1 text complexity. This list includes read-alouds.

Reading and Literature Standards[8]

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Retell key details and information drawn from the text.
2. Explain the subject of the text or the problem the characters face.
3. Answer questions about characters and events that take place in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. retell the beginnings, middles, and endings of stories
b. ask and answer questions about details of a text
c. identify the problems that characters face in a story and the lessons learned
d. identify the feelings of characters and the reasons for their actions
e. differentiate between realistic and fantastical elements within a story

Informational Text

a. restate key information (e.g., events, subject, ideas) from a text
b. ask and answer questions about details of a text

Reading Foundations

Linguistic Awareness

1. Students gain awareness of spoken words, syllables, and phonemes.
   a. aurally distinguish long from short vowel sounds in spoken single-syllable words (e.g., /*tap*/ vs. /*tape*/; /*sock*/ vs. /*soak*/; /*sit*/ vs. /*sight*/)
   b. produce single-syllable words by orally blending phonemes, including consonant blends (e.g., /*cats*/, /*black*/, /*blast*/)
   c. isolate and pronounce initial, medial vowel, and final phonemes (sounds) in single-syllable words (e.g., *fast*, *fast*, *fast*)
   d. orally segment single-syllable words into their complete sequence of individual phonemes

[8] The expectation is that students can fulfill these standards with texts they read independently as well as texts that are read aloud to them.

Observing craft and structure

Core Standards — Students can and do:

4. Identify the meanings of words and phrases as they are used in the text.
5. Identify important parts or sections of texts.
6. Compare and contrast characters or events from different stories.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. identify words and phrases that suggest feelings or appeal to the senses
b. identify similarities in beginning and ending sounds of words in children's poems and songs
c. identify parts of a story and parts of a poem as well as sections of informational picture books and tell how they are different
d. identify common characteristics of folktales and fairy tales, including their use of rhyme, rhythm, and repetition
e. participate (e.g., react, speculate, read along, act out) when familiar texts are read aloud
f. compare and contrast characters or events from different stories written by the same author or written about similar subjects

Informational Text

a. identify basic text features and what they mean, including titles and subtitles, table of contents, and chapters

Reading Foundations, continued

Phonics and Word Recognition

2. Students know and apply grade-level phonics and word analysis skills in decoding words.

a. know the common spelling-sound correspondences for consonants (e.g., *wr-*, *sh*, *-ck*, *-ll*)
b. know vowel digraph and final-*e* conventions for representing long vowels
c. know spelling-sound correspondences for diphthongs and other common vowel teams (e.g., *loud*, *cow*, *look*, *loop*, *boy*, *boil*)
d. use knowledge of phonics and spelling conventions to decode regularly spelled one-syllable words (e.g., *sick*, *march*, *sight*, *slice*, *bake*, *spring*)
e. understand that every syllable must have a vowel sound and use that knowledge to determine the number of syllables in a word
f. decode two-syllable words following basic patterns (e.g., *rabbit*, *magnet*, *napkin*, *pickle*, *butter*)
g. read words with inflectional endings (e.g., *-s*, *-es*, *ies*, *-ed*, *ied*, *-ing*, *-er*, *-est*)
h. use phonics to decode visually new words when reading
i. recognize grade-appropriate, irregularly spelled words by sight

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Use text illustrations to predict or confirm what the text is about.
8. Identify words in a text that link ideas and events together.
9. Identify who is telling a story or providing information in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. use pictures, illustrations, and context to make predictions about and confirm story content
b. identify words in a story that link events together (e.g., *first/second*, *then*, *next*, *before/after*, *later*, *finally*)
c. identify who is the speaker in a story or poem

Informational Text

a. identify words that link ideas together (e.g., *also*, *in addition*, *for example*, *but*)
b. identify the author and sources of information when provided by the text

Developing habits for reading text

Core Standards — Students can and do:

10. Begin to read independently and/or with a partner, sustaining effort necessary to build understanding.

Reading Foundations, continued

Developing Fluency

3. Students read with sufficient accuracy and fluency to support comprehension.

a. demonstrate increased accuracy, fluency, and expression on successive readings of a text
b. use context to confirm or self-correct word recognition and understanding, rereading as necessary
c. read aloud, alone, or with a partner at least 15 minutes each day, in school or out

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

3. With specific guidance, add details to strengthen writing through revision.

Using tools and technology

Core Standards — Students can and do:

4. Gain familiarity with technology and other tools to produce, revise, and edit writing.

Standards — Students can and do (by key text type):[9]

Narratives

a. establish a situation in time and/or place that is appropriate for the sequence of events to follow
b. develop appropriately sequenced actions within one or more events using linking words, phrases, or clauses to signal chronological ordering
c. provide a reaction to what happened
d. include dialogue if appropriate, and some details
e. provide a sense of closure and/or a reflective statement

Informative and Explanatory Texts

a. include some sort of beginning to establish the topic (beyond using the title of the piece)
b. supply facts and information relevant to the topic
c. use simple additive linking words (e.g., *and*, *first*, *second*) to create connections between the facts
d. provide examples relevant to the topic
e. provide a sense of closure

Arguments (opinions)

a. introduce the topic or book directly, or use the title of the book as an introduction
b. state opinions (e.g., *My best friend is . . .*) relevant to the topic
c. provide reasons for opinions and details to support them

[9] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

d. use linking words that express causality (e.g., *I like . . . because . . .*)
e. refer to the content of the text when writing about literature

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in group activities requiring speaking and listening.
2. Listen closely to and sustain attention on texts read aloud as well as other sources of information presented orally, visually, or multi-modally and confirm understanding by restating the information and answering pertinent questions.

Standards — Students can and do (by key communication type):

Classroom discussions and participating productively

a. initiate and participate in conversations with peers and adults through multiple exchanges, attending to the comments of others
b. confirm understanding by restating information or answering questions about what has been discussed
c. ask questions to get information, ask for help, or clarify something that is not understood
d. follow norms for conversation, such as listening to others and taking turns to speak

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences and ideas that demonstrate an awareness of their listeners.
4. Speak audibly and clearly.

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. describe people, places, things, and events with relevant facts and examples
b. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

Language Development Standards

Conventions

In grade 1, students gain increasing skill and independence in sentence formation and development. They have a sense of what a verb is and that its form changes to signal different time periods (past, present, and future). Their repertoire of prepositions continues to expand, and they use pronouns with regularity. Students capitalize names, places, and dates. They use end punctuation as well as commas in dates and in simple series of words. Their range of word-formation and spelling strategies grows.

Key Terms: comma, pronoun, verb

Grammar and usage

Core Standards — Students can and do:

1. Produce and expand complete sentences in response to questions and prompts.
2. Use subject, object, and possessive pronouns (e.g., *I*, *me*, *my*; *they*, *them*, *their*).
3. Use verbs to convey a sense of past, present, and future in writing and speaking (e.g., *Today I walk home*; *Yesterday I walked home*; *Tomorrow I will walk home*).
4. Demonstrate understanding of frequently occurring prepositions (e.g., *during*, *beyond*, *toward*).

Mechanics

Core Standards — Students can and do:

5. Capitalize names, places, and dates.
6. Use end punctuation for sentences, including periods, question marks, and exclamation points.
7. Use commas in dates and to separate single words in a series.
8. Form new words through addition, deletion, and substitution of sound and letters (e.g., *an* → *man* → *mat* → *mast* → *must* → *rust* → *crust*).
9. Use conventional spelling for words with common spelling patterns and common irregular words.
10. Use phonetic spellings for untaught words, drawing on phonemic awareness and spelling conventions.

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grade 1, students begin to sort words themselves into categories rather than the objects that they name. They are able to define familiar words (e.g., *duck*) in a two-step process of identifying a category (bird) to which it belongs and naming one or more attributes that distinguish this category member from others (able to swim). Students grasp that many words they know can mean different things depending on how the word is used, and they make distinctions between and among closely related verbs and adjectives in terms of manner and intensity. They acquire new words through interactive language use, including informal talk, discussion, listening to and responding to texts read aloud as well as by being taught the words direct.

Determining the meaning of words

Core Standards — Students can and do:

1. Sort words into categories (e.g., colors, clothing).
2. Define words by category and by one or more key attributes (e.g., a *duck* is a bird that swims; a *tiger* is a large cat with stripes).
3. Demonstrate understanding of the concept of multiple-meaning words (e.g., *match*, *kind*, *play*) by identifying various meanings of some grade-appropriate examples of such words.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

4. Define, choose, or act out the meaning of closely related verbs that differ in manner (e.g., *look*, *peek*, *glance*, *stare*, *glare*, *scowl*; *speak*, *shout*, *mumble*, *whine*, *whimper*, *murmur*).
5. Distinguish among closely related adjectives that differ in intensity (e.g., *large*, *gigantic*; *hot*, *scalding*; *tasty*, *delicious*; *quiet*, *silent*).

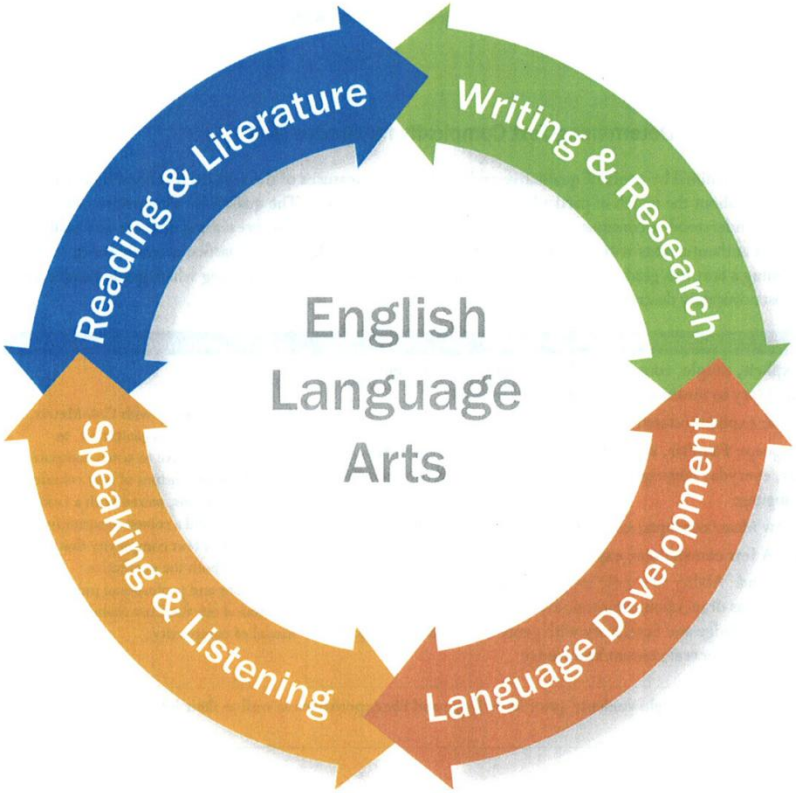
Acquiring vocabulary

Core Standards — Students can and do:

6. Acquire and use new vocabulary taught directly and gained through conversations and hearing texts read aloud.

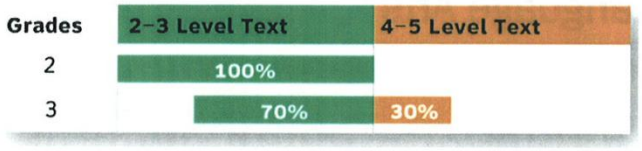
English Language Arts

Grade 2



Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through the grades, students must engage with texts of steadily increasing complexity.

- **In grade 2**, students focus on reading texts in the 2–3 grade band level with scaffolding likely required for texts at the high end of the range.

Determining Text Complexity for Grades 2–3

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts[10]	Quantitative Measures of Texts
• *Structure:* Explicit, simple, conventional; simple graphic representations are supplementary to meaning; texts are relatively short • *Purpose:* Single; explicitly stated • *Style and Language:* Familiar, accessible, plain; few literary devices; mostly clear, everyday language; limited use of Tier 2 and 3 words and figurative language • *Richness:* A few ideas/concepts; concrete; low information density • *Relationships:* A few connections; explicit • *Knowledge Demands:* Ability to handle simple themes and fantastical elements as well as draw upon common, everyday experiences; general background knowledge and familiarity with genre conventions required; some everyday and general content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

[10] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for Grade 2

Narratives	Drama	Poetry	Informational Text
At this level, includes children's adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.	*At this level, includes staged dialogue, scenes, and brie, familiar scenes.*	*At this level, includes nursery rhymes and the subgenres of narrative poems, limericks, and free verse.*	*At this level, includes books about science, history, and the arts and other nonfiction materials.*

Illustrative Texts for Narratives, Drama, and Poetry[11]

Crow Boy by Taro Yashima (1955)

The Stories Julian Tells by Ann Cameron (1981)

Tops and Bottoms by Janet Stevens (1995)

"Grandpa's Stories" by Langston Hughes (1958)

"Weather" by Eve Merriam (1969)

Read alouds:

The Cricket in Times Square by George Selden, illustrated by Garth Williams (1960)

"Fireflies" by Paul Fleischman, illustrated by Eric Beddows (1988)

Illustrative Informational Texts

Maps & Globes by Jack Knowlton, pictures by Harriet Barton (1985)

Sunshine Makes the Seasons by Franklyn M. Branley (1985)

From Seed to Plant by Gail Gibbons (1991)

Boy, Were We Wrong About Dinosaurs by Kathleen V. Kudlinski, illustrated by S.D. Schindler (2005)

[11] See Appendix B for other texts illustrative of Grades 2-3 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Retell what the text says explicitly and make inferences required to understand the text.
2. Identify the lessons or topics of the text and the key details that support them.
3. Describe in detail a specific character, event, or topic in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. ask and answer clarifying questions (e.g., how, why, where, when, who, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
b. identify or infer the moral or lesson in well-known stories, fables, folktales, or myths
c. describe how major events in a story often lead from problem to solution
d. examine a specific incident in a story, narrative, or drama in depth and establish when, where, and why it occurs
e. describe characters based upon what they say and do

Informational Text

a. accurately restate the key information provided by the text
b. ask and answer clarifying questions (e.g., how, why, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
c. identify the main idea and supporting details and facts in a text
d. explain the topic of each paragraph in a multi-paragraph text
e. identify specific events in historical or scientific texts and discuss what happened, as well as where, when, and why it happened, according to facts taken from the text

Reading Foundations

Phonics and Word Recognition

1. Students know and apply grade-level phonics and word analysis skills in decoding words.
   a. know the common spelling-sound correspondences for consonants (e.g., *wr-*, *sh*, *-ck*, *-ll*)
   b. know vowel digraph and final-*e* conventions for representing long vowels
   c. know spelling-sound correspondences for diphthongs and other common vowel teams (e.g., *loud*, *cow*, *look*, *loop*, *boy*, *boil*)
   d. use knowledge of phonics and spelling conventions to decode regularly spelled one-syllable words (e.g., *sick*, *march*, *sight*, *slice*, *bake*, *spring*)

Observing craft and structure

Core Standards — Students can and do:

4. Explain the meanings of words and phrases as they are used in the text.
5. Gain familiarity with different ways of presenting stories and information in text.
6. Compare and contrast different versions of the same story or informational texts on the same subject.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. recognize sensory details and how they are used to describe events, feelings, and objects
b. describe the different ways poets use rhyme, rhythm, and sensory images to convey a topic or message
c. identify repetitions in phrases, refrains, or sounds in poems and songs
d. describe story elements, including characters, setting, the problem, and how it is resolved
e. discuss stories written by the same author about similar characters or compare different versions of similar well-known tales and myths from various cultures

Informational Text

a. locate key words, facts, or other details using features of texts (e.g., captions, headings, glossaries, indexes, electronic menus, and icons)
b. distinguish between writing that is based on real events and writing that is based on fantasy or fictional events
c. combine information from two different parts of a text and identify how they are related (e.g., chronology, causation)
d. after reading two passages on the same subject, combine the information to more fully describe a topic

Reading Foundations, continued

Developing Fluency

2. Students read with sufficient accuracy and fluency to support comprehension.

a. demonstrate increased accuracy, fluency, and expression on successive readings of a text
b. use context to confirm or self-correct word recognition and understanding, rereading as necessary
c. read alone or with a partner at least 20 minutes each day, in school or out

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Locate and use information from graphs, illustrations, and electronic sources.
8. Identify and understand words and phrases that indicate logical relationships.
9. Identify who is telling the story or providing information at any given point in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. efficiently navigate stories in print and electronic text and explain how images and illustrations connect to and clarify the content
b. identify who is telling the story or who is speaking in a drama

Informational Text

a. use information from visual elements of print and electronic texts (e.g., graphs, maps, charts, illustrations, photographs, diagrams) and explain how they help a reader understand the text
b. identify words (e.g., *such as*, *because*, *therefore*, *in order to*, *since*) that logically connect ideas in sentences and paragraphs

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding text.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

3. With specific guidance, strengthen writing through revision.

Using tools and technology

Core Standards — Students can and do:

4. Gain familiarity with technology and other tools to produce, revise, and edit writing.

Standards — Students can and do (by key text type):[12]

Narratives

a. establish a situation in time and/or place that is appropriate for the sequence of events to follow
b. recount a single well-elaborated event or sequence of events, managing chronological sequence with temporal words, phrases, and clauses
c. tell what the narrator thought or felt
d. include dialogue if appropriate and specific details
e. provide closure through reaction, commentary, or summation

Informative and Explanatory Texts

a. produce a brief introduction
b. create an organizational structure that presents similar information together, frequently patterned after chapter book headings or picture books
c. use adequate and specific facts and definitions to develop points
d. use linking words, such as *also*, *another*, *and*, and *more*, to connect ideas within categories of information, and headers to signal groupings
e. include a concluding sentence or section

Arguments (opinions)

a. introduce the topic or book(s) directly
b. state opinion(s) relative to the topic
c. provide reasons for opinions and details to support them
d. create a list-like structure for organization
e. use words to link and organize opinions and reason(s) (e.g., *because*, *another*, *and*, *also*)
f. refer to the text(s) when writing about literature
g. close with a concluding statement or recommendation

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in small groups and as a class, engaging in a series of oral exchanges about texts and topics.

[12] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by paraphrasing the information.

Standards — Students can and do (by key communication type):

Classroom discussions and participating productively

a. engage in conversations on familiar topics
b. paraphrase the key information or ideas of others presented orally or through other media
c. inquire about oral or visual presentations to deepen understanding or clarify comprehension
d. link additions to conversation to the previous remarks of others
e. participate productively by listening politely to the ideas of others, taking turns speaking, and extending their ideas in light of discussions

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences and ideas, thinking about the needs of their listeners.
4. Speak audibly and clearly at an understandable pace.

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. recount stories or experiences with descriptive details by answering who, what, where, when, how, and why questions about them
b. report on a topic, including appropriate facts and details
c. use appropriate tone to express ideas, feelings, and needs clearly
d. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

Language Development Standards

Conventions

In grade 2, students create sentences of expanding length and complexity, though their control over these sentences is likely to be imperfect. Their command of noun and verb formation extends to common irregular forms. Students capitalize correctly in most situations. Their use of punctuation has grown to include commas in greetings and closings of letters as well as apostrophes to form contractions and to signal possession. Their spelling is increasingly conventional, and they now consult references, such as beginning dictionaries, to aid them when needed.

Key Terms: apostrophe, contraction, regular and irregular nouns and verb, possessive

Grammar and usage

Core Standards — Students can and do:

1. Generate and expand sentences with embedded, dependent, or conjoined clauses (e.g., *After we came home from school, I fed the gerbil and my sister cleaned the cage*).
2. Form common irregular plural nouns (e.g., *feet, children, teeth, mice, fish, women*).

3. Form the past tense of common irregular verbs (e.g., *sat*, *hid*, *told*).

Mechanics

Core Standards — Students can and do:

4. Capitalize holidays, product names, geographic names, and important words in titles.
5. Use commas in greetings and closings of letters.
6. Use apostrophes to punctuate contractions and to form common possessives.
7. Use conventional spelling for high-frequency and other studied words.
8. Generalize learned spelling patterns when writing words (e.g., *cage* → *badge*; *boy* → *boil*; *paper* → *copper*).
9. Use spelling rules for adding suffixes to base words (e.g., *sitting*, *smiled*, *cries*, *happiness*).
10. Consult reference materials, including beginning dictionaries, to check and correct spellings.

Vocabulary

In grade 2, students use a repertoire of strategies for dealing with unknown words. They can analyze the word itself, consider how it is used, consult reference materials, use the components of a compound word as clues to the word's meaning, or employ some combination of these strategies to determine or clarify word meanings. They figure out which meaning of a multiple-meaning word is most likely intended in a particular circumstance, and they differentiate among the connotations of related verbs and adjectives. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly.

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - identifying its base word when it has affixes (e.g., *happiness*, *finally*, *grimy*, *busily*)
   - determining how it is used in a sentence when reading, including whether it names or describes a thing or an action
   - consulting reference materials, including glossaries and beginning dictionaries, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Explain the meaning of grade-appropriate compound words (e.g., *birdhouse*, *lighthouse*, *housefly*; *bookshelf*, *notebook*, *bookmark*).

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

4. Distinguish among related verbs (e.g., *toss*, *throw*, *hurl*) to gain a sense of their shadings of meaning.
5. Distinguish among related adjectives (e.g., *thin*, *slender*, *skinny*, *scrawny*; *irritated*, *mad*, *angry*, *furious*) to gain a sense of their shadings of meaning.

Acquiring vocabulary

Core Standards — Students can and do:

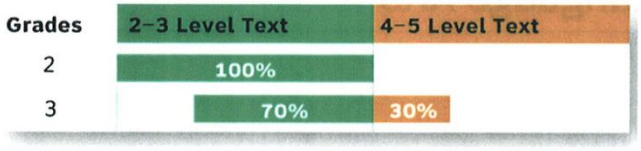
6. Acquire and use new vocabulary taught directly and gained through reading and conversations.

English Language Arts

Grade 3

Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through the grades, students must engage with texts of steadily increasing complexity.

- **In grade 3**, students focus on reading texts in the 2–3 grade band level text (70 percent) independently and are introduced to texts in the 4–5 grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 2–3

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers' professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts[13]	Quantitative Measures of Texts
• *Structure:* Explicit, simple, conventional; simple graphic representations are supplementary to meaning; texts are relatively short • *Purpose:* Single; explicitly stated • *Style and Language:* Familiar, accessible, plain; few literary devices; mostly clear, everyday language; limited use of Tier 2 and 3 words and figurative language • *Richness:* A few ideas/concepts; concrete; low information density • *Relationships:* A few connections; explicit • *Knowledge Demands:* Ability to handle simple themes and fantastical elements as well as draw upon common, everyday experiences; general background knowledge and familiarity with genre conventions required; some everyday and general content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

[13] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for Grade 3

Narratives	Drama	Poetry	Informational Text
At this level, includes children's adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.	*At this level, includes staged dialogue, scenes, and brief familiar scenes.*	*At this level, includes nursery rhymes, and the subgenres of narrative poems, limericks, and free verse.*	*At this level, includes books about science, history, and the arts and other nonfiction materials.*

Illustrative Texts for Narratives, Drama, and Poetry[14]

My Father's Dragon by Ruth Stiles Gannett, illustrated by Ruth Chrisman Gannett (1948)

Sarah, Plain and Tall by Patricia MacLachlan (1985)

The One-Eyed Giant (Book One of Tales from the Odyssey) by Mary Pope Osborne (2002)

"Knoxville, Tennessee" by Nikki Giovanni (1968)

"Eating While Reading" by Gary Soto (1995)

Read Alouds:

"How the Camel Got His Hump" in *Just So Stories* by Rudyard Kipling (1902)

Illustrative Informational Text

A Medieval Feast by Aliki (1983)

So You Want to Be President? by Judith St.George, illustrated by David Small (2000)

Bat Loves the Night by Nicola Davies, illustrated by Sarah Fox-Davies (2008)

Moonshot: The Flight of Apollo 11 by Brian Floca (2009)

[14] See Appendix B for other texts illustrative of Grades 2-3 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Retell what the text says explicitly and make inferences required to understand the text.
2. Identify lessons or topics of the text and the key details that support them.
3. Describe in detail a specific character, event, or topic in the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. ask and answer clarifying questions (e.g., how, why, where, when, who, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
b. identify or infer the moral or lesson in well-known stories, fables, folktales, or myths
c. describe how major events in a story often lead from problem to solution
d. examine a specific incident in a story, narrative, or drama in depth, and establish when, where, and why it occurs
e. describe characters based upon what they say and do

Informational Text

a. accurately restate key information provided by the text
b. ask and answer clarifying questions (e.g., how, why, and what) concerning specific details in the text and refer explicitly to parts of a text to answer these questions
c. identify the main idea and supporting details and facts in a text
d. explain the topic of each paragraph in a multi-paragraph text
e. identify specific events in historical or scientific texts and discuss what happened, as well as where, when, and why it happened, according to facts taken from the text

Reading Foundations

Phonics and Word Recognition

1. Students know and apply grade-level phonics and word analysis skills in decoding words.
   a. identify and know the meaning of the most common prefixes and derivational suffixes (e.g., *un-*, *re-*, *mis-*, *-ful*, *-tion*, *-able)*
   b. decode regularly spelled single-syllable and multi-syllable words (e.g., *vocabulary*, *refrigerator*, *terrible*, *frightening)*
   c. read grade-appropriate irregularly spelled words by sight
   d. use phonics and word analysis to identify visually new words when reading

Observing craft and structure

Core Standards — Students can and do:

4. Explain the meanings of words and phrases as they are used in the text.
5. Gain familiarity with different ways of presenting stories and information in text.
6. Compare and contrast different versions of the same story or informational texts on the same subject.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. recognize sensory details and how they are used to describe events, feelings, and objects
b. describe the different ways poets use rhyme, rhythm, and sensory images to convey a topic or message
c. identify repetitions in phrases, refrains, or sounds in poems and songs
d. describe story elements, including characters, setting, the problem, and how it is resolved
e. discuss stories written by the same author about similar characters or compare different versions of similar well-known tales and myths from various cultures

Informational Text

a. locate key words, facts, or other details using features of texts (e.g., captions, headings, glossaries, indexes, electronic menus, and icons)
b. distinguish between writing that is based on real events and writing that is based on fantasy or fictional events
c. combine information from two different parts of a text and identify how they are related (e.g., chronology, causation)
d. after reading two passages on the same subject, combine the information to more fully describe a topic

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Locate and use information from graphs, illustrations, and electronic sources.
8. Identify and understand words and phrases that indicate logical relationships.
9. Identify who is telling the story or providing information at any given point in the text.

Reading Foundations, continued

Developing Fluency

2. Students read with sufficient accuracy and fluency to support comprehension.

a. demonstrate increased accuracy, fluency, and expression on successive readings of a text
b. use context to confirm or self-correct word recognition and understanding, rereading as necessary
c. read at least 20 minutes each day, in school or out

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. efficiently navigate stories in print and electronic text and explain how images and illustrations connect to and clarify the content
b. identify who is telling the story or who is speaking in a drama

Informational Text

a. use information from visual elements of print and electronic texts (e.g., graphs, maps, charts, illustrations, photographs, diagrams) and explain how they help a reader understand the text
b. identify words (e.g., *such as*, *because*, *therefore*, *in order to*, *since*) that logically connect ideas in sentences and paragraphs

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding text.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and opinions that communicate to a familiar, known audience.

Conducting research

Core Standards — Students can and do:

2. Gather information from experiences or provided text sources.

Revising writing

Core Standards — Students can and do:

3. With specific guidance, strengthen writing through revision.

Using tools and technology

Core Standards — Students can and do:

4. Gain familiarity with technology and other tools to produce, revise, and edit writing.

Standards — Students can and do (by key text type):[15]

Narratives

a. set the time, indicate a location, introduce characters, or enter immediately into the story line to engage the reader
b. recount a single, well-elaborated event or a sequence of events that unfold naturally using temporal words, phrases, and clauses
c. tell what the narrator thought or felt
d. develop a focus, provide pacing, and include only relevant information
e. develop a character through the description of external behavior
f. provide descriptive details
g. employ dialogue and other narrative strategies
h. provide a satisfying conclusion that is reflective and/or that effectively ties up loose ends

Informative and Explanatory Texts

a. produce an introduction that names the topic and provides at least one general detail about it
b. create an organizational structure that presents similar information together, frequently patterned after chapter book headings or picture books
c. use adequate, relevant, and specific facts and definitions to develop points
d. logically categorize details and facts drawn from personal experience and other sources
e. use linking words, such as *also*, *another*, *and*, and *more*, to connect ideas within categories of information, and use headers to signal groupings
f. include only appropriate information
g. include a concluding sentence or section

Arguments (opinions)

a. introduce the topic or book(s) directly, and attempt to capture the reader's interest
b. state an opinion relative to the topic (e.g., *This is a good book* or *John is a good friend*)
c. provide facts and details to support the opinion
d. create a list-like organizing structure that provides reasons for the opinion
e. use appropriate words to link and organize opinions and reason(s) (e.g., *because*, *another*, *and*, *also*)
f. refer to the text(s) when writing about literature
g. provide a concluding statement, reflection, and/or recommendation

[15] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

Speaking and Listening Standards

Listening critically and participating productively

Core Standards — Students can and do:

1. Participate productively in small groups and as a class, engaging in a series of oral exchanges about texts and topics.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by paraphrasing the information.

Standards — Students can and do (by key communication type):

Classroom discussions and participating productively

a. engage in conversations on familiar topics
b. paraphrase the key information or ideas of others presented orally or through other media
c. inquire about oral or visual presentations to deepen understanding or clarify comprehension
d. link additions to conversation to the previous remarks of others
e. participate productively by listening politely to the ideas of others, taking turns speaking, and extending their ideas in light of discussions

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences and ideas, thinking about the needs of their listeners.
4. Speak audibly and clearly at an understandable pace.

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. recount stories or experiences with descriptive details by answering who, what, where, when, how, and why questions about them
b. report on a topic, including appropriate facts and details
c. use appropriate tone to express ideas, feelings, and needs clearly
d. recite or read aloud poems, rhymes, songs, and stories, speaking clearly at an understandable pace

Language Development Standards

Conventions

By grade 3, students have learned the foundations of written and spoken language, including letter, word, and sentence formation and crucial forms of punctuation. They ensure agreement between subject and verb and between pronoun and antecedent in simple situations. Students use quotation marks to indicate dialogue. They know most of the conventions of spelling and consult references to look up words when they still have difficulty. They use precise everyday language to describe and begin to consider the effects of word choice in writing and speaking.

Key Terms: subject-verb and pronoun-antecedent agreement, comma splice, fragment, run-on, quotation mark

Conventions of language and writing

Core Standards — Students can and do:

1. Group related ideas into a paragraph.

Grammar and usage

Core Standards — Students can and do:

2. Generate complete sentences, avoiding fragments, comma splices, and run-ons.*
3. Ensure subject-verb and pronoun-antecedent agreement.*

Mechanics

Core Standards — Students can and do:

4. Use quotation marks in dialogue.
5. Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing regular words.
6. Consult reference materials, including dictionaries, to check and correct spellings.

Word choice and style

Core Standards — Students can and do:

7. Use precise everyday language.
8. Choose words for effect.*[16]

[16] Conventions standards noted with an asterisk (*) need to be revisited by students in subsequent grades. See Appendix A for a full listing.

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grade 3, students use their repertoire of strategies to determine and clarify the meaning of unknown and multiple-meaning words. They know that words are sometimes used in nonliteral ways and can use that knowledge to help them understand common idioms. They learn and can paraphrase many common idioms and sayings. They recognize that words have nuances in meaning and rely on context and background knowledge to sort among related words that describe abstract concepts. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly.

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - using prefixes and suffixes when it is a multimorpheme word (e.g., *thoughtless*, *recycle*, *unforgettable*)
   - determining how it is used in a sentence when reading
   - consulting reference materials, including glossaries and dictionaries, both print and digital
2. Determine the meaning of multiple-meaning words by using context.
3. Distinguish between literal and nonliteral uses of language.
4. Paraphrase the meaning of common idioms and sayings.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

5. Distinguish among related words that describe states of mind, degrees of certainty, or other abstract concepts (e.g., *knew*, *believed*, *suspected*, *heard*, *wondered*).

Acquiring vocabulary

Core Standards — Students can and do:

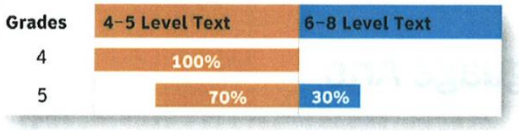
6. Acquire and use new vocabulary taught directly and gained through reading and conversations.

English Language Arts

Grades 4–5

Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through grades 4–5, students must engage with texts of steadily increasing complexity.

- **In grade 4**, students focus on reading texts in the 4–5 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 5**, students focus on reading in the 4–5 grade band level (70 percent) independently and are introduced to texts in the 6–8 grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 4–5[17]

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers' professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Largely explicit and direct; graphic representations are supplementary to meaning; texts are of increasing length • *Purpose:* Single or twofold; clearly indicated • *Style and Language:* Moderately accessible; some literary devices; some everyday language; some use of Tier 2 and Tier 3 words and figurative language • *Richness:* Some ideas/concepts; mostly concrete; moderate information density • *Relationships:* Some connections; largely explicit • *Knowledge Demands:* Ability to handle fairly simple themes, consider a perspective somewhat different from one's own, and understand unfamiliar experiences; general background knowledge and familiarity with genre conventions required; some general and discipline-specific content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

[17] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for Grades 4–5

Narratives	Drama	Poetry	Informational Text
At this level, includes children's adventure stories, biographies, folktales, legends, fables, fantasy, realistic fiction, and myth.	*At this level, includes staged dialogue and brief familiar scenes.*	*At this level, includes nursery rhymes, and the subgenres of narrative poems, limericks, and free verse.*	*At this level, includes books about science, history, and the arts and other nonfiction materials and digital media sources on a range of topics.*

Illustrative Texts for Narratives, Drama, and Poetry[18]	Illustrative Informational Texts
Alice in Wonderland by Lewis Carroll (1865) *The Little Prince* by Antoine de Saint-Exupery (1943) *Bud, Not Buddy* by Christopher Paul Curtis (1999) "The Echoing Green" from *Songs of Innocence* by William Blake (1789) "Casey at the Bat" by Ernest Lawrence Thayer (1888) "Words Free As Confetti" by Pat Mora (1996) *Where the Mountain Meets the Moon* by Grace Lin (2009)	*Discovering Mars* by Melvin Berger (1992) *Hurricanes: Earth's Mightiest Storms* by Patricia Lauber (1996) "Ancient Mound Builders" by E. Barrie Kavash from *Cobblestone* (2003) *Volcanoes* by Seymour Simon (2006) "Kenya's Long Dry Season" by Nellie Gonzalez Cutler from *Time for Kids* (2009) "Seeing Eye to Eye" by Leslie Hall from *National Geographic Explorer* (2009)

[18] See Appendix B for other texts illustrative of Grades 4-5 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Determine what the text says explicitly and make inferences required for understanding; explain how those inferences stem from the text.
2. Articulate the main ideas and themes of the text and provide a summary that captures the key supporting details.
3. Describe in detail two or more characters, events, or topics in the text and explain how they are related to one another.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. determine the theme of a story or drama, basing the understanding of theme on how characters adapt or change in response to the challenges posed in the plot
b. summarize accurately the significant events of a play or narrative in chronological order, describing where, when, why, and how specific actions take place
c. describe characters based on evidence from their thoughts, words, deeds, and interactions with others
d. describe the setting in detail, drawing on evidence of the time, place, and other cues
e. determine the theme of a poem, basing the understanding of theme on the key observations, images, or statements in a poem

Informational Text

a. outline the main and supporting ideas in the text and provide an accurate summary
b. identify the topic sentence and gist of each paragraph in a multi-paragraph text
c. describe related events in a history text or related topics in a science text and explain the relationships between the events or topics

Observing craft and structure

Core Standards — Students can and do:

4. Explain the meanings of words and phrases in the text, distinguishing literal and figurative uses.
5. Comprehend literature and information presented in a range of structures.
6. Compare and contrast texts written on the same topic or theme and explain how they are different and similar.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. describe the sensory details in texts and distinguish the use of literal versus figurative language
b. observe and explain how words with similar meanings can have different connotations
c. identify the meaning of figurative phrases and culturally significant characters found in mythology that are integral to understanding other works of literature and texts (e.g., *Herculean*, *Pandora's box*)
d. identify how narratives and plays are structured to describe the progress of characters through a series of events and challenges

e. identify rhymes and other repetitions of sounds that supply rhythm and pattern in poems and narrative prose
f. compare a narrative or a play with a presentation in another format, such as film, stage, or interactive text, and note what is surprising or different about the alternative version
g. compare works of literature on the same topic or with a similar theme

Informational Text

a. explain the meaning of key words and terms as they are used in the text
b. understand information drawn from a variety of texts with different structures, such as chronological, compare-and-contrast, or as a chain of causes and effects
c. identify and use text features (e.g., bold print, key words, topic sentences, hyperlinks, electronic menus, and icons) to locate information quickly and aid in comprehension
d. compare and contrast related accounts on the same or similar topics by different authors, by analyzing their content and perspectives

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Explain and use information presented graphically or visually in print, videos, or electronic texts.
8. Outline the information or evidence used to support an explanation or argument, determining which points support which key statements.
9. Determine the point of view or purpose that guides how events or ideas are described.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. identify the narrator of a story and explain how different stories are narrated from different perspectives
b. compare accounts of historical events and figures or natural phenomena with their depiction in a fictional work

Informational Text

a. explain how factual information presented graphically or visually (e.g., maps, charts, diagrams, timelines, animations, and other interactive visual elements) aids in the comprehension of print and electronic texts
b. explain how authors support their specific claims with evidence, including which evidence supports which claims
c. determine the author's purpose and how that is reflected in the description of the events and ideas

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and arguments that demonstrate an awareness of audiences that are familiar and known to the student.

Conducting research

Core Standards — Students can and do:

2. Perform short, focused research tasks that build knowledge by exploring aspects of a single topic.
3. Gather information from experience, as well as print and digital resources.
4. Determine the accuracy and relevance of the information gathered to answer specific questions.
5. Restate information from source materials in one's own words, through summary or paraphrase.
6. Provide basic bibliographic information for print and digital sources.

Revising writing

Core Standards — Students can and do:

7. With guidance and support from peers and adults, strengthen writing through revision, editing, or beginning again to maintain a clear focus throughout.

Using tools and technology

Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and edit writing.

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 4: Describing the content of literary or informational sources at the 4-5 grade band level of text complexity and content

   Grade 5: Comparing the contents of literary or informational sources at the 4-5 grade band level of complexity and content

Standards — Students can and do (by key text type):[19]

Narratives

a. orient the reader by establishing a situation, introducing characters, setting, and location, or by backfilling information after entering immediately into the storyline
b. create an organizing structure in which events are logically or causally sequenced
c. in producing a story, create a plot with an initiating event, complicating action, a climax, and a resolution
d. use a variety of temporal words, phrases, and clauses to signal sequence
e. use concrete and sensory details to develop narrative elements
f. develop the narrative using techniques such as dialogue, pacing, and reporting the narrator's thoughts
g. show both external behaviors and the internal responses of characters to events
h. provide closure and a realistic outcome of the narrative's events

Informative and Explanatory Texts

a. state the topic clearly and provide a general observation and focus
b. develop the subject using relevant facts, concrete details, quotations, or other information and examples
c. group related information logically in basic structures (paragraphs, sections) and provide headings or illustrations when useful
d. employ specialized vocabulary and a formal, objective style when appropriate
e. use appropriate links to join ideas
f. include only relevant appropriate information to demonstrate focus
g. provide a conclusion related to the information or explanation offered

Arguments (opinions)

a. introduce an opinion about a concrete issue or topic
b. support opinions with relevant reasons
c. support reasons with specific details
d. link the reasons together using words, phrases, and clauses (e.g., *because*, *since*)
e. adopt a relatively formal style for sharing and defending an opinion when appropriate to the discipline or context
f. provide a concluding statement or section that offers reflections, restatement, or recommendations consistent with the opinion presented

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively one on one, in small groups, and as a whole class, joining in discussions and making relevant points about what they have read, heard, or written.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by summarizing the main ideas and supporting details.

Standards — Students can and do (by key communication type):

[19] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

Classroom discussions and collaboration

a. come to discussions having read required material and, in conversation, build upon background knowledge from that material and other information known about the topic
b. demonstrate understanding of the content and ideas presented or discussed by distilling them into an accurate summary
c. ask questions to clarify or follow up on ideas or information presented orally or through other media
d. respond to questions and make comments that contribute to the topic and ideas of previous speakers
e. explain information presented graphically or visually in conjunction with other information presented orally
f. engage productively and respectfully with others during discussions, including listening actively, gaining the floor respectfully, and qualifying or justifying what they think after listening to others' questions or accounts

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences, opinions or other information, choosing material that is relevant to the topic and to the listeners.

4. Speak audibly and clearly at an appropriate and understandable pace, using formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. speak coherently about events, topics, or texts that focus and organize ideas in a logical sequence and include facts, details, or other information that support the main ideas
b. use appropriate volume, phrasing, and pace for clarity
c. read aloud prose and poetry, with appropriate emotion and fidelity to the text

Language Development Standards

Conventions

In grades 4–5, students heighten their ability to situate and describe using language that is increasingly precise and vivid. They form and use verbs of various tenses to locate people, actions, and events in time, and they correctly use adjectives and adverbs to modify. Students begin to gain control of frequently confused words (e.g., *effect*, *affect*) and edit writing to remove language that is not idiomatic. Their mastery of capitalization is complete. They use punctuation to separate items in a series and a comma to distinguish an introductory element from the main part of the sentence. Students mark titles in conventional ways. They understand how to quote and use quotation marks. Their spelling is conventional. Their language is increasingly topic specific, precise, and varied, and they manipulate sentence structure for effect.

Key Terms: adjective; adverb; interjection; preposition; simple, progressive, and perfect tense

Conventions of language and writing

Core Standards — Students can and do:

1. Maintain the focus of a paragraph on a topic through structural elements such as main ideas, supporting sentences, and transitions.

Grammar and usage

Core Standards — Students can and do:

2. Form and use the simple (e.g., *I walked*, *I walk*, *I will walk*), progressive (e.g., *I was walking*, *I am walking*, *I will be walking*) and the perfect (e.g., *I had walked*, *I have walked*, *I will have walked*) verb tenses.
3. Recognize and correct inappropriate shifts in verb tense.*
4. Form and choose between adjectives and adverbs (including comparative and superlative forms), placing them appropriately within the sentence.*
5. Correctly use frequently confused words.*
6. Use idiomatic language.*

Mechanics

Core Standards — Students can and do:

7. Capitalize the first word in quotations as appropriate and other important words, such as section headers.
8. Use punctuation to separate items in a series.*
9. Use a comma to separate an introductory element from the rest of the sentence.
10. Use underlining, quotation marks, or italics to indicate titles of works.
11. Use quotation marks to mark direct speech and quotations from a text.
12. Spell grade-appropriate words correctly, consulting references as needed.*

Word choice and style

Core Standards — Students can and do:

13. Use specialized, topic-specific language to convey ideas precisely.*
14. Use figurative language to create images or make comparisons and connections between people, objects, or ideas.*
15. Use punctuation for effect.*
16. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.*[20]

Focus by Grade-Level
Grade 4: Distinguish one idea or thing from another (Conventions Standards #'s1-3, #8, #9, #11)
Grade 5: Word choice (Conventions Standards #'s 4-6, #13, #14)

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[20] Conventions standards noted with an asterisk (*) need to be revisited by students in subsequent grades. See Appendix A for a complete listing.

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grades 4–5, students are capable of selecting among a wide range of strategies—analyzing the word itself, using localized context clues (particularly at the sentence level), and consulting reference materials—to determine and clarify the meaning of unknown and multiple-meaning words. They develop the habit of verifying their inferences of word meanings. They are able to interpret simple figurative language found in what they read. They learn and can paraphrase many common idioms, proverbs, and adages. They make distinctions among words based on connotation. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).[21]

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - analyzing the word's sounds, spelling, and meaningful word parts
   - using semantic clues in sentences, such as definitions, examples, or restatements included within the text
   - using syntactic clues, such as using its position within the sentence as a guide to whether it represents a thing or an action
   - consulting reference materials, including glossaries, dictionaries, and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language, including simple similes and metaphors.
5. Paraphrase the meaning of common idioms, adages, and proverbs.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

6. Distinguish a word from other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

7. Acquire and use a grade-appropriate vocabulary of Tier 2[22] words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.
9. Know and use words and phrases that signal contrast, addition, or other logical relationships (e.g., *however*, *although*, *nevertheless*, *similarly*, *moreover*, *in addition*).

[21] Beck I. L., McKeown, M.G. & Kucan, L. (2002). *Brining Words to Life; Robust Vocabulary Instruction*, New York; Guilford Press

Grade 4 English Language Arts: Focus for Instruction

Reading and Literature

In grade 4, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 4-5 grade band level independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% text at the 4-5 grade band level

100%

Writing and Research

In grade 4, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by describing the contents of literary or informational sources at the 4-5 grade band level of complexity and content

Speaking and Listening

In grade 4, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentation of ideas and information

Language Development

In grade 4, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Distinguish one idea or thing from another:
  - Maintain the focus of a paragraph on a topic… (Conventions Standard #1)
  - Form and use the simple, progressive and perfect verb tenses … (Conventions Standard #2)
  - Recognize and correct inappropriate shifts in verb tense. (Conventions Standard #3)
  - Use punctuation to separate items in a series … (Conventions Standard #8)
  - Use a comma to separate an introductory element … (Conventions Standard #9)
  - Use quotation marks to mark direct speech and quotations … (Conventions Standard #11)

Grade 5 English Language Arts: Focus for Instruction

Reading and Literature

In grade 5, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 4-5 grade band level independently and are introduced to 6-8 grade band "stretch" texts, which will likely require scaffolding.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% text at the 4-5 grade band level, 30% text at the 6-8 grade band level

Writing and Research

In grade 5, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. There also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by comparing the contents of literary or informational sources at the 4-5 grade band level of complexity and content.

Speaking and Listening

In grade 5, students apply the speaking and listening standards in different contexts.

- Speaking and listening Standards applied in different contexts: classroom discussion and collaboration as well as in presentation of ideas and information.

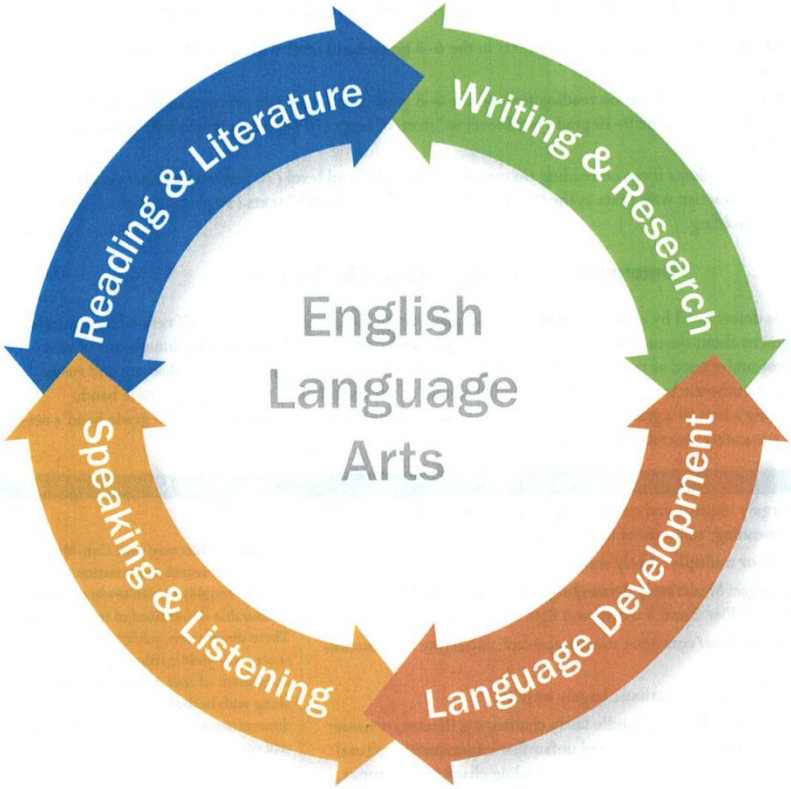
Language Development

In grade 5, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions,

- Vocabulary standards applied to both reading, writing, speaking and listening
- **Grade-specific conventions focus:** Word choice
  - Form and choose between adjectives and adverbs. (Conventions Standard #4)
  - Correctly use frequently confused words. (Conventions Standard #5)
  - Use idiomatic language. (Conventions Standard #6)
  - Use specialized, topic specific language to convey ideas precisely. (Conventions Standard #13)
  - Use figurative language to create images … (Conventions Standard #14)

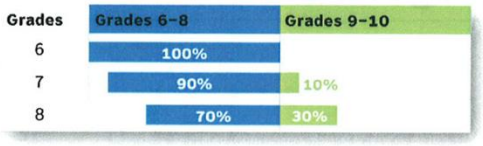
English Language Arts

Grades 6–8



Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through grades 6–8, students must engage with texts of steadily increasing complexity.

- **In grade 6**, students focus on reading texts in the 6–8 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 7**, students focus on reading texts in the 6–8 grade band level (90 percent) independently and are introduced to texts in the 9–10 grade band level as "stretch" texts (10 percent), which will likely require scaffolding.
- **In grade 8**, students focus on reading texts in the 6–8 grade band level (70 percent) independently as well as sustained practice with texts in the 9–10 grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 6–8[23]

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers' professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Largely implicit and subtle; graphic representations are essential to meaning; texts are of increasing length • *Purpose:* Single or multiple; subtly stated • *Style and Language:* Moderately demanding; several literary devices; consistent use of Tier 2 and 3 words and figurative language • *Richness:* Several ideas/concepts; mostly abstract; moderate information density • *Relationships:* Several connections; largely implicit • *Knowledge Demands:* Ability to handle fairly challenging themes, consider multiple perspectives, and understand unfamiliar experiences; cultural and historical knowledge useful for understanding characters, settings, and allusions; some discipline-specific content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

[23] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for Grades 6–8

Narratives	Drama	Poetry	Informational Text
At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, folktales, legends, fables, tall tales, myths, fantasy, science fiction, realistic fiction, and graphic novels.	*At this level, includes one-act and multi-act plays both as text and film.*	*At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.*	*At this level, includes such subgenres as exposition and argument in the form of essays, opinion pieces, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.*

Illustrative Texts for Narratives, Drama, and Poetry[24]	Illustrative Informational Texts
Little Women by Louisa May Alcott (1869)	*Preamble and First Amendment to the United States Constitution* by United States (1787, 1791) **
The Adventures of Tom Sawyer by Mark Twain (1876)	*Narrative of the Life of Frederick Douglass an American Slave* by Frederick Douglass (1845)
A Wrinkle in Time by Madeline L'Engle (1962)	"Gettysburg Address"** by Abraham Lincoln (1863)
The Dark Is Rising by Susan Cooper (1973)	"Blood, Toil, Tears and Sweat" by Winston Churchill (1940)
Black Ships before Troy: The Story of the Iliad by Rosemary Sutcliff (1993)	*Travels with Charley: In Search of America* by John Steinbeck (1962)
A Midsummer Night's Dream by William Shakespeare (1596)	*I Know Why the Caged Bird Sings* by Maya Angelou (1969)
"Oh Captain, My Captain" by Walt Whitman (1865)	
"Stopping by a Wood on a Snowy Evening" by Robert Frost (1923)	
"I, Too" by Langston Hughes (1925)	

Seminal historical texts that all students are expected to read

[24] See Appendix B for other texts illustrative of Grades 6-8 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to support understanding in discussion and in writing.
2. Articulate the text's main ideas and themes and provide a summary that captures the key supporting details, without taking a position or expressing an opinion.
3. Explain in detail how events, ideas, and characters unfold in the text and interact with one another.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. infer themes when they are not explicitly stated and provide evidence on which those inferences are based
b. analyze the development of the narrative, describing how particular incidents advance or foreshadow the plot
c. recognize how the setting unfolds over the course of the text and describe its significance to the work
d. build on an author's explicit descriptions and other evidence to draw reasonable conclusions about characters and how they interact, change, and influence the central events
e. describe how a play unfolds and how particular lines of dialogue propel the action, reveal aspects of a character, or provoke a decision
f. analyze how patterns of imagery in a poem contribute to its overall theme or meaning

Informational Text

a. summarize a text without expressing a personal opinion by drawing on the author's specific description of events or information
b. determine how key ideas or concepts build on one another to reveal an overarching theme or idea

Observing craft and structure

Core Standards — Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and explain how specific word choices shape the meaning of the text.
5. Explain the text's structure, including how specific sentences, paragraphs, and larger portions build on each other and contribute to the whole of the text.
6. Compare and contrast how two or more texts written on similar topics or themes differ in their focus and key details.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. analyze how the author's choice of specific words or details contributes to the understanding of events and characters or to the tone of a narrative
b. trace the specific comparisons made by similes, metaphors, and analogies and explain how they contribute to the meaning of the text
c. compare similar ideas and themes as well as character types in myths, folktales, and legends from different cultures

d. analyze the impact of line breaks and stanzas on the meaning of a poem and acts, scenes, and stage directions on the meaning of a drama
e. compare the events, characters, ideas, and themes in texts written by the same author or on similar topics or themes

Informational Text

a. interpret the connotative meaning of closely related words and phrases as they are used in the text (e.g., *angry* versus *irate*)
b. describe how an author organizes the explanation or argument, as well as the ways in which the text's structure, language, and examples support its purpose
c. examine the structure of a Web site or other electronic text and describe how it organizes information and links to additional sources

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Interpret information presented graphically or visually in print, videos, or electronic texts and explain how this information clarifies and contributes to the text.
8. Analyze the structure and content of an argument, including its main claims or conclusions, supporting premises, and evidence.
9. Determine the point of view or purpose represented in the text, assessing how it shapes the content.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. compare the points of view from which different novels and poems are told, as well as the viewpoints of different characters in a drama
b. compare the fictional portrayal of a time, place, or character to historical sources from the period to determine which historical details have been emphasized, deleted, or changed in the fictional portrayal

Informational Text

a. interpret factual and quantitative data presented in diverse formats (including maps, charts, and diagrams as well as electronic media) and explain how this information clarifies or contributes to the text
b. distinguish between fact, opinion, and reasoned judgment presented in essays, speeches, and critiques
c. evaluate the strength of an argument's premises and specific claims as well as the degree to which each is supported by evidence
d. compare and contrast the viewpoints and use of evidence of two different authors writing about the same topic

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write narratives, informative and explanatory texts, and arguments that match purpose to task and address familiar as well as somewhat distant audiences (e.g., mayor, readers of school or neighborhood newspaper).

Conducting research

Core Standards — Students can and do:

2. Perform short, focused research projects that demonstrate understanding of the material under investigation and generate additional related questions for research.
3. Gather information independently using a variety of relevant print and digital resources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered.
5. Represent and cite accurately the data, conclusions, and opinions of others, quoting and paraphrasing them into one's own work while avoiding plagiarism.
6. Provide full bibliographic information for print and digital sources in a standard format and document quotations, paraphrases, and other information.

Revising writing

Core Standards — Students can and do:

7. With some guidance and support from peers and adults, strengthen writing through revising, editing, or beginning again to ensure logical organization, precision of word choice, and coherence.

Using tools and technology

Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and distribute writing, as well as interact online with others about writing, including responding to and providing feedback

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 6: Conveying the main ideas and key details of literary or informational sources at the 6-8 grade band level of text complexity and content
   Grade 7: Analyzing the contents of literary or informational sources at the 6-8 grade band level of complexity and content
   Grade 8: Comparing or evaluating the contents of literary or informational sources at the 6-8 grade band level of complexity and content

Standards — Students can and do (by key text type):[25]

Narratives

a. orient the reader by establishing a situation, introducing characters, setting, and location, or by backfilling information after entering immediately into the storyline
b. create an organizing structure in which events are logically or causally sequenced
c. in producing a story, create a plot with well-structured episodes (e.g., initiating event, complicating action, resolution)
d. use a variety of temporal words, phrases, and clauses to convey sequence, to shift from one time frame to another, and to show the relationships among events
e. use relevant, specific details and literary devices, such as imagery and metaphor, purposefully to develop setting, plot, and character
f. use techniques such as pacing, dialogue, or foreshadowing to highlight the significance of events or create particular effects (e.g., tension or suspense)
g. show internal mental processes to develop complex characters and convey their needs, motives, and emotional responses
h. provide an engaging conclusion, such as a surprise ending, a reflection, or a conclusion that returns to the beginning

Informative and Explanatory Texts

a. establish the topic in an introduction that provides a sense of what's to follow
b. develop the subject through relevant and specific facts, concrete details, quotations, or other information and examples
c. organize specific information under broader concepts or categories and provide headings, figures, tables, or diagrams when useful
d. use factual, precise language and maintain a formal, objective style when appropriate
e. use strategies appropriate to informational and explanatory texts such as defining, classifying, comparing/contrasting, and cause/effect
f. use appropriate links to join ideas and create cohesion
g. provide only accurate and relevant information
h. provide a conclusion that follows logically from the information or explanation presented

Arguments

a. introduce a claim about a topic or concept
b. support claims with logical reasons
c. support reasons with detailed and relevant evidence

[25] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

d. signal the relationship between reasons, or between reasons and evidence, using words, phrases, and clauses (e.g., *another reason, such as, therefore, in addition*)
e. sustain an objective style and tone appropriate for making a case when appropriate to the discipline or context
f. include only relevant information and evidence in support of claims
g. provide a concluding statement or section that offers reflections, a restatement, or recommendations that follow from the argument

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively one on one, in small groups, and as a whole class, joining in discussions and remaining flexible and adaptable as participants.
2. Sustain concentration on information presented orally, visually, or multi-modally and confirm understanding by drawing well-supported inferences about the purpose and meaning of the information.

Standards — Students can and do (by key communication type):

Classroom discussions and collaboration

a. come to discussions having completed reading or other preparation in advance and draw on that material explicitly in discussions
b. determine a speaker's attitude or point of view toward a topic presented orally or through other media
c. ask questions to check understanding to clarify the main ideas and the supporting evidence of material presented orally or through other media
d. advance a discussion by answering questions precisely and sharing specific factual knowledge and observations supported by credible evidence
e. interpret information presented in visual and digital formats and explain how this data clarifies and contributes to a discussion or information presented orally
f. support productive teamwork by setting clear goals and deadlines, monitoring progress and participation of each team member, and taking different views into account and modifying own views when indicated in light of what others say

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Share experiences, opinions, and other information, gaining and maintaining the interest and response of listeners.
4. Use appropriate tone and phrasing for emphasis, demonstrating a growing command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. organize and present information about situations, topics, or texts that emphasize salient points and clarify and support claims and findings with pertinent and specific descriptions, facts, and examples in ways that are accessible and verifiable to listeners
b. use gesture, tone, phrasing, and pace for emphasis
c. incorporate visual displays and electronic media when helpful and in a manner that strengthens the presentation
d. perform dramatic readings of various prose and poetry speaking with clarity, fidelity, and responsiveness to the text, noting changes in the situation, mood, or tone of text

Language Development Standards

Conventions

In grades 6–8, students develop a firm command of sentence structure. They are able to form sentences of varying structures, place phrases and clauses properly within a sentence, and use a variety of coordinating and subordinating conjunctions to express relationships between sentence parts. Students have also mastered pronoun use, ensuring proper case, number, and person and avoiding vagueness. They understand and use verb voice and mood, and identify and correct inappropriate shifts in pronouns and verbs. Students set off nonrestrictive or parenthetical elements from the rest of the sentence with proper punctuation and use a comma before a coordinating conjunction in a compound sentence. They vary sentence patterns for effect and edit writing for redundancy and wordiness.

Key Terms: conjunction; dash; nonrestrictive/parenthetical element; indicative, imperative, interrogative, conditional, and subjunctive mood; parentheses; phrase and clause; pronoun case, number, and person; simple, compound, complex, and compound-complex sentence; active and passive voice

Grammar and usage

Core Standards — Students can and do:

1. Form compound, complex, and compound-complex sentences.
2. Place phrases and clauses within a sentence, avoiding misplaced and dangling modifiers.*
3. Ensure that pronouns are in the proper case (subjective, objective, possessive).
4. Recognize and correct inappropriate shifts in pronoun number and person.*
5. Recognize and correct vague pronouns with unclear or ambiguous antecedents.*
6. Form and use verbs in the active and passive voice.
7. Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.
8. Avoid inappropriate shifts in verb voice and mood.*

Mechanics

Core Standards — Students can and do:

9. Use punctuation to set off nonrestrictive/parenthetical elements with commas, parentheses, or dashes.*
10. Use a comma before a coordinating conjunction in a compound sentence.

Word choice and style

Core Standards — Students can and do:

11. Use verbs in the active and passive voice and in the conditional and subjunctive moods to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).
12. Vary sentence patterns for meaning, reader/listener interest, and style.*
13. Choose words and phrases to express ideas precisely and concisely, avoiding wordiness and redundancy.*[26]

Grade-Level Focus
Focus by Grade-Level
Grade 6: Pronouns (Conventions Standards #s 3-5)
Grade 7: Sentence structure (Conventions Standards #1, #2, #12)
Grade 8: Verb voice and mood (Conventions Standards #s 6-8, #11)

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In grades 6–8, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering the word's use in a broader context that includes the content of the paragraph in which the word appears and the overarching structure of the text. They habitually verify their inferences of word meanings. They interpret a variety of figurative language found in what they read. They make distinctions among words based on connotation. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - using knowledge of roots, prefixes, and suffixes
   - using semantic clues, such as sentence and paragraph context as well as the organizational structure of the text (e.g., cause and effect, comparison and contrast)
   - using syntactic clues, such as using its position within the sentence as a guide to whether it is a subject, verb, or object
   - consulting reference materials, including glossaries, dictionaries, and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language, including metaphors, similes, and idioms.

[26] Conventions standards noted with an asterisk (*) need to be revisited by students in subsequent grades. See Appendix A for a complete listing.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

5. Distinguish a word from other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

6. Acquire and use a grade-appropriate vocabulary of Tier 2 words taught directly and gained through reading.
7. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

Grade 6 English Language Arts: Focus for Instruction

Reading and Literature

In grade 6, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 6-8 grade band level independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% text at the 6-8 grade band level

100%

Writing and Research

In grade 6, students apply the writing standards to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter time frames, responding to specific sources by conveying the main ideas and key details of literary or informational sources at the 6-8 grade band level of complexity and content.

Speaking and Listening

In grade 6, students apply the core speaking and listening standards in different contexts.

- Speaking and listening Standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 6, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions

- Vocabulary standards applied to both reading, writing, speaking and listening
- **Grade-specific conventions focus:** Pronouns
  - Ensure that pronouns are in the proper case… (Conventions Standard #3)
  - Recognize and correct inappropriate shifts… (Conventions Standard #4)
  - Recognize and correct vague pronouns… (Conventions Standard #5)

Grade 7 English Language Arts: Focus for Instruction

Reading and Literature

In grade 7, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read text at the 6-8 grade band level independently and are introduced to 9-10 grade band level "stretch" texts, which will likely require scaffolding.

- Reading Standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 90% at the 6-8 grade band level, 10% at the 9-10 grade band level

Writing and Research

In grade 7, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 6-8th grade band level of complexity and content.

Speaking and Listening

In grade 7, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 7, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Sentence structure
  - Form compound, complex… (Conventions Standard #1)
  - Place phrases and clauses… (Conventions Standard #2)
  - Vary sentence patterns… (Conventions Standard #12)

Grade 8 English Language Arts: Focus for Instruction

Reading and Literature

In grade 8, students apply the reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on reading text at the 6-8 grade band level independently as well as on sustained practice with 9-10 grade band level "stretch" texts, which may require scaffolding.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% at the 6-8 grade band level, 30% at the 9-10 grade band level

Writing and Research

In grade 8, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 6-8th grade band level of complexity and content.

Speaking and Listening

In grade 8, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

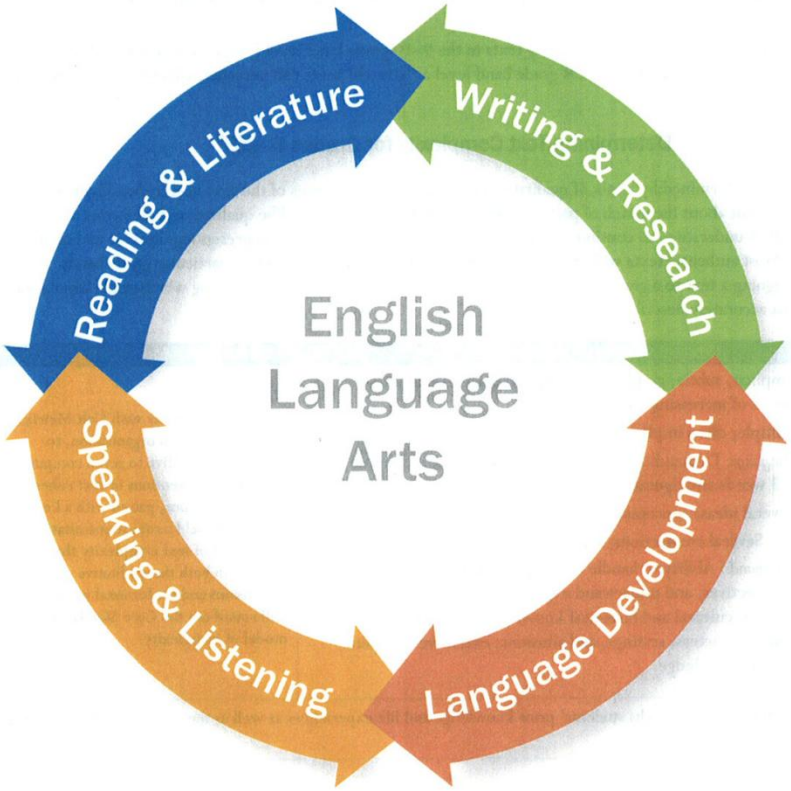
Language Development

In grade 8, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Verb voice and mood
  - Form and use verbs in the active and passive voice (Conventions Standard #6)
  - Form and use verbs in the indicative… (Conventions Standard #7)
  - Avoid inappropriate shifts… (Conventions Standard #8)
  - Use verbs in the …voice …mood… (Conventions standard #11)

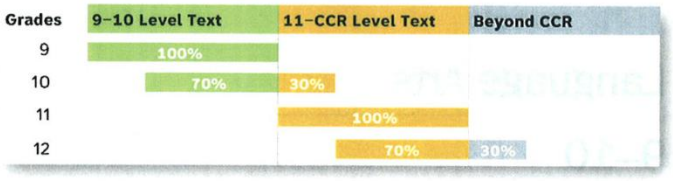
English Language Arts

Grades 9–10



Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grade



While advancing through grades 9–10, students must engage with texts of steadily increasing complexity.

- **In grade 9**, students focus on reading texts in the 9–10 grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 10**, students focus on reading texts in the 9–10 grade band level (70 percent) independently and are introduced to texts in the 11–CCR grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 9–10[27]

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers' professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Implicit, subtle; graphic representations are essential to meaning; texts of increasing length • *Purpose:* Multiple; often implicit • *Style and Language:* Demanding; many literary devices; extensive use of Tier 2 and 3 words and figurative language • *Richness:* Several ideas/concepts; abstract • *Relationships:* Several connections; implicit • *Knowledge Demands:* Ability to handle challenging themes, consider multiple perspectives, and understand experiences distinctly different from one's own; cultural and historical knowledge useful for understanding characters, settings, and allusions; extensive discipline-specific content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences as well as their interests, motivations, and maturity level.	

[27] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for 9–10

Narratives	Drama	Poetry	Informational Text
At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, science fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels.	*At this level, includes one-act and multi-act plays both in written form and on film.*	*At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.*	*At this level, Includes such subgenres as exposition and argument in the form of essays, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.*

Illustrative Texts for Narratives, Drama, and Poetry[28]

The Odyssey by Homer (8th century B.C.E.) translated by Robert Fagles

The Grapes of Wrath by John Steinbeck (1939)

The Killer Angels by Michael Shaara (1975)

In the Time of the Butterflies by Julia Alvarez (1994)

The Glass Menagerie by Tennessee Williams (1944)

"Song" by John Donne (1635)

"The Raven" by Edgar Allen Poe (1845)

"Loveliest of Trees" by A.E. Houseman (1896)

"I Am Offering This Poem to You" by Jimmy Santiago Baca (1977)

Illustrative Informational Texts

"Second Inaugural Address" by Abraham Lincoln (1865)**

"State of the Union Address" by Franklin Delano Roosevelt (1941)

"Remarks to the Senate in Support of a Declaration of Conscience" by Margaret Chase Smith (1950)

"Address at the March on Washington" by Martin Luther King, Jr. (1963)**

"A Quilt of a Country" by Anna Quindlen (2001)

Seminal historical texts that all students are expected to read

[28] See Appendix B for other texts illustrative of Grades 9–10 text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to support analyses in discussion and in writing.
2. Articulate the theses and themes and summarize how they develop over the course of the text and how they are expressed by the key details.
3. Analyze in detail how complex and multifaceted events, ideas, and characters unfold and interact over the course of the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. draw on specific details to describe how the events, characters, or setting develops over the course of the drama, narrative poem, or story
b. summarize the development of a theme and describe how that theme resonates throughout the text
c. weave together the details of texts to form a comprehensive understanding of its characters, including their overlapping or competing motivations
d. describe how the accumulation of specific phrases and images within poems contributes to a theme as a whole

Informational Text

a. demonstrate a command of the precise details of the exposition or argument, drawing on specific points to support an understanding of a part or the text as a whole
b. analyze the development of theses or explanations in texts and summarize succinctly the key relationships among ideas and supporting details

Observing craft and structure

Core Standards — Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and explain how specific word choices shape the meaning and tone of the text.
5. Analyze the structure of complex text and its parts, including how specific sentences, paragraphs, and larger portions build on each other and contribute to the whole of the text.
6. Compare and contrast the content and style of two or more texts written on similar topics or themes.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. analyze how the precise choice of words and phrases creates vivid images and sets the tone, mood, and theme of the text; compare the impact of words selected by the author to similar words with different connotations

b. explain how authors manipulate time (e.g., flashbacks, foreshadowing, pacing) to create suspense, mystery, or humor
c. evaluate how playwrights use soliloquies to portray the internal thinking and feeling of characters
d. compare and contrast similarities and differences in styles and forms of poems on a similar theme or topic

Informational Text

a. analyze how the author uses specific words and metaphors to establish tone or to make illuminating comparisons in an argument, explanation, or description
b. explain how the author structures information or an argument to emphasize key points and advance a point of view
c. analyze how different authors organize and categorize similar information and describe the impact of those different approaches

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Synthesize information presented graphically or visually in print, videos, or electronic texts with the information provided by the text.
8. Follow and evaluate the logic and reasoning of the text, including assessing whether the evidence provided is sufficient to support the claims.
9. Analyze the point of view or purpose represented in the text, assessing how it shapes the content, style, and tone.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. explain how a story unfolds when it is told by alternating or multiple narrators with different points of view
b. analyze literature in terms of its connection to related historical and cultural events and contexts

Informational Text

a. interpret complex, multifaceted, quantitative, or technical information presented in maps, charts, illustrations, graphs, and time lines
b. provide an account of an author's precise claims, including how specific assertions are defined and distinguished from opposing statements
c. analyze the explicit and implicit premises of an argument and determine if the conclusions reached are logically justified by the evidence presented in the text
d. compare how different authors construct and develop different points of views or perspectives on similar events or issues by assessing their assumptions, evidence, and reasoning

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write informative and explanatory texts and arguments that match purpose to task and address familiar as well as more distant, unknown and general audiences (e.g., peers, elected officials and policy makers, community members).

Conducting research

Core Standards — Students can and do:

2. Demonstrate proficiency at performing short, focused research projects as well as more sustained inquiries that demonstrate an increasing command of the subject under investigation.
3. Assemble evidence independently from authoritative and credible print and digital sources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered and determine the strengths and limitations of each source and avoiding over-reliance on any one source.
5. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.
6. Cite print or electronic sources correctly and document quotations, paraphrases, graphics, and other information using a standard format.

Revising writing

Core Standards — Students can and do:

7. Strengthen writing through revision, editing, or beginning again to ensure to ensure logical organization, precision of word choice, and coherence.

Using tools and technology

Core Standards — Students can and do:

8. Use technology and other tools to produce, revise, and distribute writing, as well as to interact online with others about writing, including responding to and providing feedback.

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 9: Analyzing the content of literary or informational sources at the 9-10 grade band level of text complexity and content

   Grade 10: Comparing or evaluating the contents of literary or informational sources at the 9-10 grade band level of complexity and content

Standards — Students can and do (by key text type):[29]

Narratives

By high school, students are most often using narrative writing as a technique embedded within other genres. They use narrative writing to inform and persuade. They may, for example, provide a brief anecdote to support a point made in an argument or a scenario to illustrate an explanation. In such cases, narrative writing is a technique rather than a form in itself.

Informative and Explanatory Texts

a. provide a clear and coherent introduction that establishes the subject and conveys a knowledgeable stance
b. develop a complex subject through relevant and specific facts, concrete details, quotations, or other information and examples
c. organize complex information into categories that make clear distinctions and provide headings, figures, tables, and diagrams when useful
d. employ discipline-specific and technical vocabulary and maintain a formal, objective style
e. adapt strategies to present information and explanations (e.g., if/then, extended definitions, classification, comparison/contrast, and cause/effect) and employ them to manage the complexity of a topic
f. link ideas with transitions and by varying sentence structures to express relationships between ideas and create cohesion
g. emphasize the most significant information and confirm the accuracy of key points
h. provide a conclusion that articulates the implications and significance of the information or explanation

Arguments

a. establish a substantive claim and distinguish it from alternate or opposing claims
b. support claims with logical reasons
c. provide relevant and sufficient evidence from credible sources in support of the reasons
d. explain how the evidence links to the claim
e. develop the argument in part based on knowledge of the audience (e.g., building bridges by opening with areas of agreement)
f. convey relationships between reasons, as well as between reasons and evidence, and signal alternative claims using words, phrases, and clauses (e.g., *on the other hand, however, but, nevertheless, because, therefore, in addition*).
g. maintain a formal style when appropriate to the discipline or context
h. enhance the reliability of the argument by employing strategies such as paraphrasing or quoting explicitly from a credible, authoritative source
i. provide a concluding statement or section that enhances the argument, using strategies such as articulating the implications, summing up the key factors, or weighing the evidence to support the claim

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in a range of structured interactions—both interpersonally and in groups—exchanging information constructively and with confidence.

[29] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

2. Sustain concentration on complex information presented orally, visually, or multi-modally and confirm understanding by summarizing, analyzing, and elaborating on key ideas.

Standards — Students can and do (by key communication type):

Classroom discussions and collaboration

a. come to discussions having researched, studied, and taken notes on topics or issues under study and draw upon that preparation in discussions
b. determine the key ideas as well as the tone and mood of communications presented orally or through other media
c. ask questions to test the evidence that supports a speaker's claims and conclusions presented orally or through other media
d. build on essential information from others' input and respond constructively by making cogent and verifiable comments that aid in the furthering and deepening of discussions
e. integrate multiple streams of data presented through a variety of multi-modal media into a cohesive, meaningful understanding of the information
f. support productive teamwork by identifying the comments and claims made on all sides of an issue; evaluating the degree to which each claim is supported by evidence; sifting, summarizing, and putting to use the most important ideas developed by the group; and determining what additional information, research, and tasks are required in order to move the group towards its goals

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Present information and points of view, structuring and organizing comments to support their purposes and guide the listener.
4. Vary intonation and phrasing for emphasis and effect, demonstrating command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. organize and present complex information about situations, topics, or texts so that listeners can follow the line of thought by grouping related ideas, using transitional markers, and clarifying one's claims with evidence that is verifiable and accessible
b. align verbal (tone, phrasing, pacing) and nonverbal strategies (gestures and facial expressions) for emphasis and effect
c. make strategic use of multimedia elements and visual displays of data to enhance understanding
d. perform dramatic readings of various prose and poetry, speaking with clarity, fidelity, and responsiveness to the text, reflecting on syntax and diction for cues regarding emphasis and rhythm

Language Development Standards

Conventions

In high school, students gain a broad range of sophisticated language skills to enhance meaning, achieve stylistic effect, and create subtle links between and among ideas. They maintain parallel structure. They acquire a more conceptual understanding of usage and the limits of "rules." They use a full range of punctuation, including ellipses, semicolons,

colons, and hyphens, and have a fuller understanding of how to employ commas and dashes. They make use of a wide range of phrases and clauses for effect. They maintain a consistent style and tone, using a style manual appropriate to the discipline in which they are working to help conventionalize their writing.

Key Terms: colon, ellipses, hyphen, semicolon, parallel structure, verbal

Grammar and usage

Core Standards — Students can and do:

1. Use parallel structure in writing.
2. Consult references (e.g., *Merriam-Webster's Dictionary of English Usage*) as needed to resolve particular usage issues, particularly when the usage is contested.

Mechanics

Core Standards — Students can and do:

3. Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore a light*[,] *blue suit*).
4. Use a comma, ellipses, or dash to indicate a pause or break.
5. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.
6. Use a colon to introduce a list or a quotation.
7. Observe the conventions concerning using hyphens to join words.

Word choice and style

Core Standards — Students can and do:

8. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to add variety and interest to writing.
9. Maintain consistency in style and tone.
10. Write and edit work so that it conforms to the guidelines in a style manual.

Focus by Grade-Level
Grade 9: Style (Conventions Standards #9, #10)
Grade 10: Advanced punctuation use (Conventions Standards #s 3-7)

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In high school, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering multiple levels of context (sentence, paragraph, and text levels) and the word's history. They habitually verify their inferences of word meanings. They interpret a wide range of figurative language found in what they read and consider its contribution to the text. Possessing a highly developed sense of the shadings among words with similar denotations,

they evaluate an author's or speaker's choice of words as well as alternatives to the words chosen. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - using knowledge of roots, prefixes, and suffixes
   - using context, including syntactic and semantic clues, at the sentence, paragraph, and text levels
   - consulting reference materials, including general and specialized dictionaries and thesauruses, both print and digital
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language and analyze its role within the text.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

5. Assess and explain the merits of the choice of one word over another in reading, writing, speaking, and listening.
6. Gain a clearer sense of a word's meaning and use by comparing it to other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

7. Acquire and use a grade-appropriate vocabulary of Tier 2 words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

Grade 9 English Language Arts: Focus for Instruction

Reading and Literature

In grade 9, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 9-10 grade band text independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% 9-10 Band Text

100%

Writing and Research

In grade 9, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus: Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 9-10th grade band level of complexity and content.

Speaking and Listening

In grade 9, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 9, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Style
  - Maintain consistency … (Conventions Standard #9)
  - (Style manual)… (Conventions Standard #10)

Grade 10 English Language Arts: Focus for Instruction

Reading and Literature

In grade 10, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 9-10 grade band text independently as well as on sustained practice with 11-CCR band "stretch" texts, which will likely require scaffolding.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% 9-10 Band Text; 30% 11-CCR text

Writing and Research

In grade 10, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 9-10th grade band level of complexity and content.

Speaking and Listening

In grade 10, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 10, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

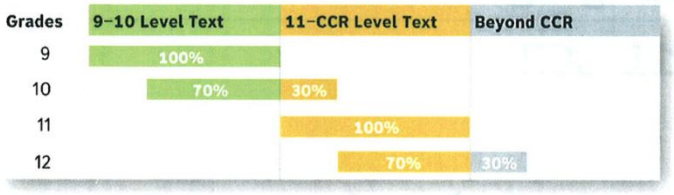
- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Advanced Punctuation Use
  - Coordinate adjectives … (Conventions Standard #3)
  - Comma/dash/ellipsis… (Conventions Standard #4)
  - Semicolon … (Conventions Standard #5)
  - Colon … (Conventions Standard #6)
  - Hyphen … (Conventions Standard #7)

English Language Arts

Grades 11–CCR

Required Text Complexity by Grade

Proportion of Texts Within and Above Grade Band to be Read in Each Grad



While advancing through grades 11-12, students must engage with texts of steadily increasing complexity.

- **In grade 11**, students focus on reading texts in the 11-CCR grade band level with scaffolding likely required for texts at the high end of the range.
- **In grade 12**, students focus on reading texts in the 11-CCR grade band level (70 percent) independently and are introduced to texts in the "Beyond CCR" grade band level as "stretch" texts (30 percent), which will likely require scaffolding.

Determining Text Complexity for Grades 11–CCR[30]

Text complexity is determined by a mix of qualitative and quantitative measures of the text itself refined by teachers' professional judgment about the match of particular texts to particular students. The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Qualitative Measures of Texts	Quantitative Measures of Texts
• *Structure:* Implicit, complex, unconventional; sophisticated graphic representations are essential to meaning; texts are sufficiently long to address complex subjects • *Purpose:* Multiple; often implicit and may be hidden or obscure • *Style and Language:* Unfamiliar, demanding, complex; many literary devices; extensive use of Tier 2 and 3 words and figurative language; language may be intentionally or unintentionally ambiguous • *Richness:* Many ideas/concepts; highly abstract; high information density • *Relationships:* Many implicit, complex, interwoven connections • *Knowledge Demands:* Ability to handle one or more complex themes, consider multiple and unusual perspectives, and understand experiences distinctly different from one's own; cultural and historical knowledge useful for understanding characters, settings, and allusions; extensive, perhaps specialized discipline-specific content knowledge	A study is underway with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity.
Professional Judgment that weighs students' prior knowledge and life experiences, students' interests, motivations, and maturity level.	

[30] Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

Mix of Key Text Types for 11–CCR

Narratives	Drama	Poetry	Informational Text
At this level, includes the subgenres of adventure stories, biographies, memoirs, historical fiction, mysteries, science fiction, mysteries, myths, science fiction, realistic fiction, allegories, parodies, satire, and graphic novels.	*At this level, includes one-act and multi-act plays both in written form and on film.*	*At this level, includes the subgenres of narrative poems, lyrical poems, free verse, odes, ballads, and epics.*	*At this level, Includes such subgenres as exposition and argument in the form of essays, speeches, opinion pieces as well as other documents and digital media sources on a range of topics.*

Illustrative Texts for Narratives, Drama, and Poetry[31]

Pride and Prejudice by Jane Austen (1813)

Black Boy by Richard Wright (1945)

Their Eyes Were Watching God by Zora Neale Hurston (1937)

The Bluest Eye by Toni Morrison (1970)

The Namesake by Jhumpa Lahiri (2003)

The Importance of Being Earnest by Oscar Wilde (1895)

Death of a Salesman by Arthur Miller (1949)

"Ode on a Grecian Urn" by John Keats (1820)

"Because I Could Not Stop for Death" by Emily Dickinson (1890)

Illustrative Informational Texts

The Declaration of Independence by Thomas Jefferson (1776)**

The Crisis by Thomas Paine (1776)

Walden by Henry David Thoreau (1854)

"Politics and the English Language" by George Orwell (1946)

"Letter from a Birmingham Jail" by Martin Luther King (1963)**

"Mother Tongue" by Amy Tan (1990)

Seminal historical texts that all students are expected to read

[31] See Appendix B for other texts illustrative of Grades 11–CCR text complexity.

Reading and Literature Standards

Grasping specific details and key ideas

Core Standards — Students can and do:

1. Read the text closely to determine what the text says explicitly and to make logical inferences from it; cite text evidence to defend and challenge analyses in discussion and in writing.
2. Articulate the text's theses and themes and provide a summary that clarifies the relationships among ideas and the connections between key details.
3. Analyze in detail how complex and multifaceted events, ideas, and characters unfold and influence one another over the course of the text.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. analyze where the author chooses to focus and which details the author chooses to emphasize
b. analyze how multiple themes and ideas in the text interact and build on one another
c. evaluate the extent to which setting shapes the course of events and sets the mood
d. trace the origins and evolution of the traits, motivations, and relationships among characters and how they interact to influence the plot and its resolution
e. describe how the poet develops a central image, preoccupation, or idea through the accumulation of specific phrases and images

Informational Text

a. demonstrate an understanding of the precise elements of an author's explanation or argument, including the distinctions the author makes between different ideas or information
b. scrutinize the details within specific portions of texts and connect the insights gained to develop an understanding of the text as a whole
c. analyze how the text captures the interaction between complex ideas or multifaceted events

Observing craft and structure

Core Standards — Students can and do:

4. Interpret the meanings of words and phrases, including connotative and figurative meanings, and analyze how word choices have a significant effect on the meaning and tone of the text.
5. Analyze the ways the author chooses to structure the text, including how to present complex ideas and events and where to begin and end.
6. Compare and contrast the choices different authors make in treating similar topics or themes, including content, style, and tone.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. analyze how the author's use of language impacts the text, including the degree of formality of the diction and how it is evocative of a particular setting (e.g., a courtroom, a rural town)
b. evaluate how authors create meaningful ambiguity and multiple layers of meaning in poetry, drama, and other narratives
c. analyze how an author choice of where to begin a story, poem, or drama impacts the overall plot structure
d. contrast alternative treatments of the same dramatic work in different stage productions and evaluate how the directors' different interpretations relate to evidence within the script
e. analyze how the author draws upon and transforms fictional or historical source material (e.g., how Shakespeare draws on Plutarch or a story in Ovid)

Informational Text

a. describe how the choice of a particular word, phrase, or series of words can impact significantly the meaning of a document (e.g., contract, court opinion, essay)
b. evaluate how the author's choice of structure contributes to the effectiveness of the exposition or argument
c. compare and contrast presentations of the same topic in different media and describe the differences in focus, organization, and links to other sources

Integrating information and evaluating evidence

Core Standards — Students can and do:

7. Synthesize information presented graphically or visually in print, videos, or electronic texts and, when appropriate, note discrepancies of fact or interpretation (e.g., data in a table inconsistent with the author's analysis).
8. Rigorously evaluate the logic and reasoning of the text, including assessing whether the evidence provided is relevant and sufficient.
9. Analyze how the point of view or purpose develops in the text and explain how it is revealed in the key details.

Standards — Students can and do (by key text type):

Narratives, Drama, and Poetry

a. compare points of view from which different stories are told and trace how they shift within a story and influence characterization and plot
b. explain how dramatic irony created by the differences between what the audience or reader knows and what the characters know in a drama or narrative fiction creates suspense, anxiety, or humor

Informational Text

a. synthesize ideas and data presented graphically and determine their purpose and relationship to the rest of the text (print or digital), noting any inconsistencies or discrepancies between the two
b. evaluate the reasoning and rhetoric that support an argument or explanation, including assessing the sufficiency and relevance of the evidence as well as identifying any unsubstantiated statements or fallacious reasoning
c. analyze documents of historical and literary significance for their premises, perspectives, and logical structure

Developing habits for reading complex text

Core Standards — Students can and do:

10. Develop the habit of reading independently and productively, sustaining concentration and stamina to read increasingly demanding texts.

Writing and Research Standards

Writing to reflect audience, purpose, and task

Core Standards — Students can and do:

1. Write informative and explanatory texts and arguments that match purpose to task and are tailored to audiences with specific requirements (e.g., admissions officer, human resources officer, skeptical audience).

Conducting research

Core Standards — Students can and do:

2. Demonstrate proficiency at performing short, focused research projects as well as more sustained inquiries that synthesize multiple authoritative sources on a subject.
3. Analyze evidence independently gathered from multiple authoritative and credible print and digital sources.
4. Assess the credibility, reliability, consistency, and accuracy of the information and sources gathered and determine their usefulness and relevance for the specific audience, purpose, and task.
5. Represent and cite accurately the data, conclusions, and opinions of others, effectively incorporating them into one's own work while avoiding plagiarism.
6. Cite print or electronic sources correctly and document quotations, paraphrases, graphics, and other information using a standard format.

Revising writing

Core Standards — Students can and do:

7. Strengthen writing through revision, editing, or beginning again to ensure to ensure logical organization, precision of word choice, and coherence.

Using tools and technology

Core Standards — Students can and do:

8. Demonstrate command of technology and other tools to produce, revise, and distribute writing, as well as to interact online with others about writing, including responding to and providing feedback.

Developing proficiency in a range of writing

9. Create writing over extended timeframes (time for reflection and revision) and shorter timeframes (a single sitting or a day or two), responding to specific sources.

   Focus by grade level:

   Grade 11: Analyzing the content of literary or informational sources at the 11-CCR grade band level of text complexity and content

   Grade 12: Synthesizing or evaluating the contents of literary or informational sources at the 11-CCR grade band level of complexity and content

Standards — Students can and do (by key text type):[32]

Narratives

By high school, students are most often using narrative writing as a technique embedded within other genres. They use narrative writing to inform and persuade. They may, for example, provide a brief anecdote to support a point made in an argument or a scenario to illustrate an explanation. In such cases, narrative writing is a technique rather than a form in itself.

Informative and Explanatory Texts

a. provide a clear and coherent introduction that establishes the subject and conveys a knowledgeable stance
b. develop complex subjects through judicious use of relevant and specific facts, details, quotations, examples, or other information
c. organize and present information so that each new piece of information builds upon what precedes it to create a unified whole
d. demonstrate command of discipline-specific and technical vocabulary when appropriate and adjust style as appropriate to the situation
e. demonstrate control of a range of strategies to present complex information or explanations and employ them effectively to manage the complexity of the topic and accomplish the writer's purpose
f. link ideas with transitions and by varying sentence structures to express the precise relationships among ideas and create cohesion
g. provide a conclusion that articulates the implications and significance of the information or explanation

Arguments

a. establish the importance of the issue, make a substantive claim, and distinguish it from alternate or opposing claims
b. support claims with logical reasons
c. provide relevant, sufficient, and convincing evidence from credible sources in support of the reasons
d. make logical connections between the evidence and the claim
e. develop the argument in part based on an awareness of the audience's values, knowledge of the issue, and possible biases
f. convey relationships between reasons, as well as between reasons and evidence, and signal alternative claims using words, phrases and clauses (e.g., *on the other hand*, *however*, *but*, *nevertheless*, *because*, *therefore*, *in addition*)
g. maintain a formal style when appropriate to the discipline or context
h. enhance the credibility of the argument by demonstrating control of strategies, including paraphrasing or quoting from authoritative sources and citing logical consequences
i. provide a concluding statement or section that enhances the argument, using strategies such as articulating the implications, summing up the key factors, or weighing the evidence to support the claim

[32] See Appendix C for samples of student writing that illustrate through annotations the level of quality required to meet the writing standards.

Speaking and Listening Standards

Listening closely and participating productively

Core Standards — Students can and do:

1. Participate productively in a range of structured interactions—both interpersonally and in groups—exchanging information constructively and with confidence, adapting to different levels of formality.
2. Sustain concentration on complex information presented orally, visually, or multi-modally and confirm understanding by challenging or defending key ideas and supporting evidence.

Standards — Students can and do (by key communication type):

Classroom discussions and collaboration

a. come to discussions having formulated considered judgments on the topics or issues under study and draw upon that preparation in discussions
b. evaluate the content and rhetoric of a speaker, noting when evidence is exaggerated or distorted
c. ask questions that probe the reasoning and evidence that support the claims and conclusions made orally or through other media, including offering counter examples or other points of view
d. propel conversations forward by providing essential information and sharing findings that clarify, accommodate, or challenge ideas
e. synthesize information presented visually or digitally with other information presented orally, noting the effect on meaning of any discrepancies between the two presentations
f. assist in the formulation and productive functioning of both formal and informal self-directed work groups by identifying and assigning tasks and maintaining conversational norms as well as evaluating the progress of the team towards its goals

Exchanging information and speaking effectively

Core Standards — Students can and do:

3. Present information clearly and persuasively to others, selecting the most appropriate way to structure comments for clarity and effect.
4. Adapt delivery, tone, and mood for emphasis and effect, demonstrating command of formal English when indicated or appropriate (e.g., presenting ideas versus class discussion).

Standards — Students can and do (by key communication type):

Presentation of ideas and information

a. organize and present complex information about topics, situations, or texts, providing reliable and credible evidence from authoritative sources in support of findings and claims such that the line of reasoning is clear and alternative perspectives are addressed
b. shape delivery and message to the occasion and the audience's values, knowledge of the issue, and possible biases
c. engage an audience and improve comprehension through visual aids in presentations, including multimedia platforms

d. portray and explain various ways to perform dramatic readings of various prose and poetry, citing text evidence for the alternative readings

Language Development Standards

Conventions

In high school, students gain a broad range of sophisticated language skills to enhance meaning, achieve stylistic effect, and create subtle links between and among ideas. They maintain parallel structure. They acquire a more conceptual understanding of usage and the limits of "rules." They use a full range of punctuation, including ellipses, semicolons, colons, and hyphens, and have a fuller understanding of how to employ commas and dashes. They make use of a wide range of phrases and clauses for effect. They maintain a consistent style and tone, using a style manual appropriate to the discipline in which they are working to help conventionalize their writing.

Key Terms: colon, ellipses, hyphen, semicolon, parallel structure, verbal

Grammar and usage

Core Standards — Students can and do:

11. Use parallel structure in writing.
12. Consult references (e.g., *Merriam-Webster's Dictionary of English Usage*) as needed to resolve particular usage issues, particularly when the usage is contested.

Mechanics

Core Standards — Students can and do:

13. Use a comma to separate coordinate adjectives (e.g., *It was a fascinating, enjoyable movie* but not *He wore a light*[,] *blue suit*).
14. Use a comma, ellipses, or dash to indicate a pause or break.
15. Use a semicolon (and perhaps a conjunctive adverb) to link two or more closely related independent clauses.
16. Use a colon to introduce a list or a quotation.
17. Observe the conventions concerning using hyphens to join words.

Word choice and style

Core Standards — Students can and do:

18. Use various types of phrases (noun, verb, adjectival, adverbial, participial, prepositional, absolute) and clauses (independent, dependent; noun, relative, adverbial) to add variety and interest to writing.
19. Maintain consistency in style and tone.
20. Write and edit work so that it conforms to the guidelines in a style manual.

Focus by Grade-Level
Grade 11: Parallel structure and phrasing (Conventions Standards #1, #8)
Grade 12: Usage (Conventions Standard #2)

Vocabulary

Key to students' vocabulary development is building rich and flexible word knowledge marked by multiple connections that link a word to similar words and to contexts and experiences that are related to that word—as compared to simply a definition. In high school, students continue to make use of a range of strategies to determine and clarify the meaning of unknown and multiple-meaning words. This repertoire now includes considering multiple levels of context (sentence, paragraph, and text levels) and the word's history. They habitually verify their inferences of word meanings. They interpret a wide range of figurative language found in what they read and consider its contribution to the text. Possessing a highly developed sense of the shadings among words with similar denotations, they evaluate an author's or speaker's choice of words as well as alternatives to the words chosen. They acquire new words through interactive language use, including informal talk, discussion, reading and responding to text as well as by being taught the words directly. This includes a continuing focus on "Tier 2" words and phrases (those that commonly appear in writing but not in spoken language), "Tier 3" words and phrases (those that are specific and important to particular disciplines).

Determining the meaning of words

Core Standards — Students can and do:

1. Determine or clarify the meaning of an unknown word by using one or more of the following strategies:
   - using knowledge of roots, prefixes, and suffixes
   - using context, including syntactic and semantic clues, at the sentence, paragraph, and text levels
   - consulting reference materials, including general and specialized dictionaries and thesauruses, both print and digital
   - using the word's history (etymology)
2. Determine the relevant meaning of multiple-meaning words by using context.
3. Verify the preliminary determination of a word's meaning (e.g., by checking the inferred meaning in context or by looking up the word in a dictionary).
4. Interpret figurative language and analyze its role within the text.

Understanding the nuances of words (denotations and connotations)

Core Standards — Students can and do:

7. Assess and explain the merits of the choice of one word over another in reading, writing, speaking, and listening.
8. Gain a clearer sense of a word's meaning and use by comparing it to other words with similar but not identical meanings (synonyms).

Acquiring vocabulary

Core Standards — Students can and do:

7. Acquire and use an extensive vocabulary of Tier 2 words taught directly and gained through reading.
8. Acquire and use a grade-appropriate vocabulary of Tier 3 words taught directly and gained through reading.

Grade 11 English Language Arts: Focus for Instruction

Reading and Literature

In grade 11, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 11-CCR grade band text independently, with scaffolding likely required for texts at the high end of the range.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 100% 11-CCR Band Text

100%

Writing and Research

In grade 11, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter timeframes, responding to specific sources by analyzing the contents of literary or informational sources at the 11-CCR grade band level of complexity and content.

Speaking and Listening

In grade 11, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 11, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Parallel Structure and Phrasing
  - Use parallel structure in writing … (Conventions Standard #1)
  - Use various types of phrases… (Conventions Standard #8)

Grade 12 English Language Arts: Focus for Instruction

Reading and Literature

In grade 12, students apply the core reading standards to the following types of text: narratives, drama, poetry, and informational text. Students focus on learning to read 11-CCR grade band text independently as well as on sustained practice with Beyond CCR band "stretch" texts, which will likely require scaffolding.

- Reading standards applied to different text types
- Mix of text types: Narratives, Drama, Poetry, Informational Text
- **Text Complexity focus:** 70% 11-CCR Band Text; 30% Beyond CCR text

Writing and Research

In grade 12, students apply the standards in writing to the following types of text: Narrative, Informative/Explanatory, and Argument. Students perform research, including short focused research tasks. They also write over various time frames in response to specific sources.

- Writing standards applied to different text types: Narrative, Informative/Explanatory, Argument
- Research, including short focused research tasks
- **Grade-specific focus:** Students create writing over extended and shorter time frames, responding to specific sources by synthesizing or evaluating the contents of literary of informational sources of 11-CCR grade band level complexity and content.

Speaking and Listening

In grade 12, students apply the core speaking and listening standards in different contexts.

- Speaking and listening standards applied in different contexts: classroom discussion and collaboration as well as in presentations of ideas and information.

Language Development

In grade 12, students apply the language development standards by applying the core vocabulary standards to determine word meaning, understand word nuances, and acquire vocabulary and to produce writing and speaking that observes appropriate conventions.

- Vocabulary standards applied to reading, writing, speaking and listening
- **Grade-specific conventions focus:** Usage
  - Consult references … (Conventions Standard #2)

APPENDIX A

Text Complexity Next Steps

A key requirement of the Core Standards in Reading is that all students engage with texts of steadily increasing complexity as they advance through school. The Core Standards' model of *text complexity*—in the simplest terms, how easy or difficult a text is to read—blends qualitative and quantitative measures of inherent text difficulty with educators' knowledge of their students. All three elements should be considered together when evaluating a text's appropriateness for particular students.

Qualitative dimensions are aspects of text best measured by readers applying trained judgment to the evaluation task. These dimensions include the text's structure, format, and length; its purpose; its style and language; the quality, nature, and density of its ideas, concepts, and information; relationships among ideas, information, and characters in it; and the knowledge and experience demands it places upon readers.

Quantitative dimensions include not only those aspects of text traditionally measured by readability formulas—word length and sentence length—but also computer-assessable aspects of text cohesion. These include referential cohesion (the degree to which a text refers back to previous points) and word frequency.

The qualitative and quantitative measures of a text are balanced in the model by educators' *professional judgment* of the appropriateness of the text for particular students given their background knowledge, interests, and motivation. Harder texts may be appropriate for highly knowledgeable or motivated students, and easier texts may be suitable as a means for building struggling readers' skills up to required levels.

While the tools included in this draft and the forthcoming ones described below represent an important advance over those previously available, no measure or set of measures is perfectly accurate. The mandate is that the body of works that students study in a given year represent an appropriate level of complexity as defined by these standards.

Current and next steps

A qualitative rubric, derived from prior studies and refined through feedback from trained teacher-raters, is included in this draft to define some ways in which text complexity should increase as students move through the grades. The rubric can be used (in conjunction with forthcoming quantitative measures) to place individual texts into grade bands by complexity. The qualitative dimensions are best understood, however, as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

The Core Standards work team is presently conducting a study with Coh-Metrix, a nonprofit research organization, to identify roughly five to seven computer-measurable dimensions of text cohesion. These dimensions, paired with a Lexile score, will yield a robust quantitative assessment of text complexity that, along with both the qualitative dimensions and professional judgment, will round out the Core Standards model of complexity. Graphically, these three elements will appear together in a "label" defining complexity for a given text.

Following the completion of that study in early 2010, the work team will oversee the development of a Web site designed to make the text complexity tools more user-friendly and broadly available. The site will contain a database of complexity information for a range of widely used texts, including links to texts and test passages of similar complexity. Educators will be able to input additional texts for evaluation and comment on the suitability of particular texts for particular groups of students. The overarching goal is to make text complexity a vital and easy-to-incorporate element of reading instruction.

Text Complexity Qualitative Scheme

Dimension of Text		Grade Span 2–3	4–5	6–8	9–10	11–12
Structure		Explicit, simple, conventional; simple graphic representations are supplementary to meaning; texts are relatively short	Largely explicit and direct; graphic representations are supplementary to meaning; texts are of increasing length	Largely implicit and subtle; graphic representations are essential to meaning; texts are of increasing length	Implicit, subtle; graphic representations are essential to meaning; texts are of increasing length	Implicit, complex, unconventional; sophisticated graphic representations are essential to meaning; texts are sufficiently long to address complex subjects
Purpose		Single; explicitly stated	Single or twofold; clearly indicated	Single or multiple; subtly stated	Multiple; often implicit	Multiple; often implicit and may be hidden or obscure
Style and Language	Style	Familiar, accessible, plain; few literary devices	Moderately accessible; some literary devices	Moderately demanding; several literary devices	Demanding; many literary devices	Unfamiliar, demanding, complex; many literary devices
	Language	Mostly clear, everyday language; limited use of Tier 2 and 3 words and figurative language	Some everyday language; some use of Tier 2 and 3 words and figurative language	Consistent use of Tier 2 and 3 words and figurative language	Extensive use of Tier 2 and 3 words and figurative language	Extensive use of Tier 2 and 3 words and figurative language; language may be intentionally or unintentionally ambiguous
Richness		A few ideas/concepts; concrete; low information density	Some ideas/concepts; mostly concrete; moderate information density	Several ideas/concepts; mostly abstract; moderate information density	Several ideas/concepts; abstract; high information density	Many ideas/concepts; highly abstract; high information density
Relationships		A few connections; explicit; simple	Some connections; largely explicit	Several connections; largely implicit	Several connections; implicit	Many connections; implicit; complex and interwoven
Knowledge Demands	Life experiences (literary texts)	Ability to handle simple themes and fantastical elements as well as draw upon common, everyday experiences	Ability to handle fairly simple themes, consider a perspective somewhat different from one's own, and understand unfamiliar experiences	Ability to handle fairly challenging themes, consider multiple perspectives, and understand unfamiliar experiences	Ability to handle challenging themes, consider multiple perspectives, and understand experiences distinctly different from one's own	Ability to handle one or more complex themes, consider multiple and unusual perspectives, and understand experiences distinctly different from one's own
	Cultural/literary knowledge (chiefly literary texts)	General background knowledge and familiarity with genre conventions required		Cultural and historical knowledge useful for understanding characters, settings, and allusions		
	Content/discipline knowledge (chiefly informational texts)	Some everyday and general content knowledge	Some general and discipline-specific content knowledge	Some discipline-specific content knowledge	Extensive discipline-specific content knowledge	Extensive, perhaps specialized discipline-specific content knowledge

Adapted from ACT, Inc., (2005); Carnegie Council on Advancing Adolescent Literacy (2010); Chall, Bissex, Conrad, & Harris-Sharples (1996); and Hess and Biggam (2004)

The qualitative dimensions of text complexity are best understood as continua of increasing complexity rather than as representing discrete and easily defined stages. Most authentic texts will exhibit some but not all of the traits linked to a particular grade band; qualitatively assigning a text to a grade band is therefore a matter of "best fit," or determining which grade band's set of descriptors most accurately describes the text.

Structure

- Explicit, simple, conventional → Implicit, complex, unconventional
- Simple graphic representations → Sophisticated graphic representations
- Graphic representations supplementary to meaning → Graphic representations essential to meaning
- Relatively short texts → Texts sufficiently long to address complex subjects

Purpose

- Single purpose → Multiple purposes
- Explicitly stated → Often implicit and may be hidden or obscure

Style

- Familiar, accessible, plain → Unfamiliar, demanding, complex
- Few literary devices → Many literary devices

Language

- Mostly everyday language → Extensive use of Tier 2 and 3 words
- Limited use of figurative language → Extensive use of figurative language
- Clear language → Potentially ambiguous language

Richness

- A few ideas/concepts → Many ideas/concepts
- Concrete ideas/concepts → Abstract ideas/concepts
- Low information density → High information density

Relationships

- A few connections → Many connections
- Explicit connections → Implicit connections
- Simple connections → Complex, interwoven connections

Knowledge Demands: Life Experiences

- Simple themes → Complex themes
- Single theme → Multiple themes
- Common, everyday experiences and fantastical elements → Experiences distinctly different from one's own
- Single perspective like one's own → Multiple and unusual perspectives

Knowledge Demands: Cultural Knowledge

- General background knowledge and familiarity with genre conventions required → Cultural and historical knowledge useful

Knowledge Demands: Content/Discipline Knowledge

- Some everyday and general content knowledge → Extensive, perhaps specialized discipline-specific content knowledge

Definitions of Key Writing Types

Narrative

Narrative writing is organized by time. Time is central because narrative writing depicts events, whether real or imagined. Narrative writing is fundamental to novels, short stories, biographies, autobiographies, historical accounts, and plays. With practice, students' repertoire of narrative strategies expands and their control of them increases. Students learn to provide visual details of scenes, objects, or people; to depict specific actions (movements, gestures, postures, and expressions); to use dialogue and interior monologue in order to provide insight into the narrator's and characters' personalities and motives; and to manipulate pace in order to highlight the significance of certain events and create tension and suspense. Narrative writing serves a variety of purposes; frequently it is embedded in other kinds of writing, such as writing intended to inform, instruct, or persuade.

Informative/Explanatory Text

Informative/explanatory writing conveys information accurately. This kind of writing can serve one or more of several closely related purposes: to increase readers' knowledge of a subject, to help readers better understand a procedure or process, or to enhance readers' comprehension of a concept. Informative/explanatory writing addresses questions, such as questions about types (What are the different types of whales?), about components (What are the parts of a motor?), about aspects of a subject such as its size, function, or behavior (How big is the United States? What is an x-ray used for? How do penguins find food?), about how things work (How does a camera work?), and about why things happen (Why is Earth warming?). To produce this kind of writing, students draw on what they already know and on primary and secondary sources. With practice, students become better able to develop a controlling idea that supports coherence and focus, and they can select examples, facts, and details that are relevant. They are also able to employ a variety of techniques that writers use to convey information, such as naming, describing, or differentiating different types or parts; comparing or contrasting one subject with another; and relating an anecdote or scenario to illustrate a point.

Argument

The purpose of argument is to persuade in order to change the reader's point of view or to bring about some action on the reader's part. There are many techniques employed by writers to persuade readers—for example, appeals to emotions, appeals to common beliefs, and the creation of a believable authorial voice. However, the core of argument is logic and evidence. A logical argument convinces its audience of the merit and reasonableness of the claims and the proof offered in support of the claims. Writers of logical arguments provide credible evidence (facts and details) to support their assertions. Although young children are not able to produce fully developed logical arguments, they are developing a variety of ways to extend and elaborate their work around opinions or judgments. They provide examples, they offer reasons for their assertions, and they explain cause and effect. These kinds of expository structures are steps on the road to argument.

Conventions

Three goals undergird the Conventions standards:

(1) Students should have a carefully specified range of broadly useful terms in order to be precise in their discussions about language. Such key terms (noted below) should be defined in grade-appropriate ways for younger students and fleshed out more fully in later grades. (For guidance on this matter, see, for example, Brock Haussamen with Amy Benjamin, Martha Kolln, and Rebecca S. Wheeler, *Grammar Alive!: A Guide for Teachers* [Urbana, IL: NCTE, 2003] and Amy Benjamin with Tom Oliva, *Engaging Grammar: Practical Advice for Real Classrooms* [Urbana, IL: NCTE, 2007].) Additional terminology may be helpful in particular instructional situations; avoiding terminology altogether may be appropriate in others.
(2) Students must be able to observe the conventions of standard English in their formal writing and speaking for the sake of having their efforts widely understood and taken seriously.
(3) Students need to understand that effective language use is more than simply observing a series of rules but also about making careful choices among alternatives, considering those choices in relation to task, purpose, audience, occasion, and discipline.

Many conventions-related issues are likely to arise in students' writing and speaking prior to their formal appearance in the sequence below. For example, students in kindergarten are expected to know what a complete sentence is even though the concept of a fragment is not mentioned specifically in the standards until grade 3.

Conversely, many skills and understandings introduced at lower grades will require continued attention as students advance in the grades. Students in grade 3, for instance, can ensure subject-verb agreement in simple situations, such as when the subject and verb appear next to each other in a sentence. As students' writing and speaking become more complex, however, new agreement challenges arise, such as intervening phrases suggesting a different number for the verb than the subject calls for. "Errors" with applying previously mastered skills and understandings are thus often a sign of progress in that students are stretching their ability to communicate. "Relearning" is then a matter of students becoming able to apply old skills and understandings in new, more sophisticated ways.

While all the Conventions standards should be considered cumulative, certain ones, noted with an asterisk (*), are particularly likely to need to be revisited by older students as they convey ever more elaborate ideas in writing and speech.

ELA Conventions Progressive Skills: By Standard

The following standards, marked with an asterisk (*) in the standards document, are skills and understandings that require continued attention in higher grades (after their introduction in lower grades) as they are applied to increasingly sophisticated writing and speaking.

Grade 3 **Grades 4–5** **Grades 6–8** (Grade/band in which the standard is introduced)

3.1 Generate complete sentences, avoiding sentence fragments, comma splices, and run-ons.
3.2 Ensure subject-verb and pronoun-antecedent agreement.
3.7 Choose words for effect.

4–5.2 Recognize and correct inappropriate shifts in verb tense.
4–5.3 Form and choose between adjectives and adverbs (including comparative and superlative forms), placing them appropriately within the sentence.
4–5.4 Correctly use frequently confused words.
4–5.5 Use idiomatic language.
4–5.7 Use punctuation to separate items in a series.
4–5.11 Spell grade-appropriate words correctly, consulting references as needed.
4–5.12 Use specialized, topic-specific language to convey ideas precisely.
4–5.13 Use figurative language to create images or make comparisons and connections between people, objects, or ideas.
4–5.14 Use punctuation for effect.
4–5.15 Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.

6-8.2 Place phrases and clauses within a sentence, avoiding misplaced and dangling modifiers.
6-8.4 Recognize and correct inappropriate shifts in pronoun number and person.
6.8.5 Recognize and correct vague pronouns with unclear or ambiguous antecedents.
6-8.8 Recognize and correct inappropriate shifts in verb voice and mood.
6-8.9 Set off nonrestrictive/parenthetical elements with commas, parentheses, or dashes.
6-8.12 Vary sentence patterns for meaning, reader/listener interest, and style.
6-8.13 Choose words and phrases to express ideas precisely and concisely, avoiding redundancy and wordiness.

Vocabulary Instruction

> Words are not just words. They are the nexus — the interface — between communication and thought. When we read, it is through words that we build, refine, and modify our knowledge. What makes vocabulary valuable and important is not the words themselves so much as the understandings they afford.
>
> Marilyn Adams[33]

The importance of students acquiring a rich and varied vocabulary cannot be overstated. Research suggests that if students are going to grasp and retain words and comprehend text, they need incremental, repeated exposure to words they are trying to learn in a variety of contexts. When students make multiple connections between new words and their own experiences they develop a nuanced and flexible understanding of the word. In this way, students learn not only what a word means, but how to use that word in a variety of contexts and apply appropriate senses of the word's meaning in order to understand different contexts.[34]

Initially children readily learn words from oral conversation because oral conversations are context rich in ways that aid in vocabulary acquisition: in discussion a small set of words (accompanied by gesture and intonation) is used with great frequency to talk about a narrow range of situations children are exposed to on a day to day basis. Yet as children reach school age, new words are less frequently introduced in conversation, and consequently vocabulary acquisition eventually stagnates by fourth or fifth grade unless students acquire additional words from written context.[35]

Written language, by contrast, contains hundreds of times as many different words as are typically used in conversational language. Yet writing lacks the interactive opportunities and nonverbal context provided by oral conversation so it presents a special challenge towards successful vocabulary acquisition without purposeful and ongoing concentration on vocabulary.[36] In fact, at most, between five and fifteen percent of new words encountered when reading are retained.[37] The weaker a student's vocabulary is, the slighter the gain.[38] Yet research shows that if students are going to understand what they read, they must understand upward of 95 percent of the words.[39]

As this "tipping point" for lexical dexterity is quite challenging for students to reach, every classroom needs to focus on providing students with high quality contextual encounters with vocabulary words that epitomize what they encounter in written texts. The aim should be to expose students to words that have the widest application—concepts that students are likely to meet again and again not just in classroom settings but outside the school walls as well. Some of these highly transferable academic words, often referred to as Tier 2 words, such as qualifying adjectives and adverbs (e.g., important, typically) are used broadly across domains and indeed in contexts that

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[33] Adams, M. (2009). "The Challenge of Advanced Texts: The Interdependence of Reading and Learning," in Hiebert (Ed.), Reading more, reading better: Are American students reading enough of the right stuff?, New York: Guilford Publications.

[34] Landauer, TK, McNamara, DS, Dennis, S and Kintsch, W (2007) Handbook of Latent Semantic Analysis; Landauer, T. K., & Dumais, S. T. (1997). A solution to Plato's problem: The latent semantic analysis theory of acquisition, induction, and representation of knowledge. *Psychological Review, 104(2)*, 211-240; Nagy, W. E., Herman, P., & Anderson, R. C. (1985). Learning words from context. *Reading* Research Quarterly, 20, 233-253.

[35] Hayes, D and Ahrens, M: "Vocabulary simplification for children: A special case of "motherese?" Journal of Child Language. Vol 15(2), Jun 1988, 395-410

[36] Ibid.

[37] Ibid.

[38] Daneman & Green, 1986; Herman, Anderson, Person &Nagy, 1987; Sternberg & Powell

[39] Betts, E. A. (1946). *Foundations of reading instruction*. New York, NY: American Book Company; Carver, R. P. (1994). Percentage of unknown vocabulary words in text as a function of the relative difficulty of the text: Implications for instruction. *Journal of Reading Behavior, 26*, 413-437; Hu, M., & Nation, P. (2000). Unknown vocabulary density and reading comprehension. *Reading in a Foreign Language, 13(1)*, 403-430; Laufer, B. (1988). What percentage of text-lexis is essential for comprehension. In C. Lauren & M. Nordmann (Eds.), *Special language: From humans to thinking machines*, pp. 316-323. Clevedon, UK: Multilingual Matters.

transcend the classroom.[40] However, the meanings of most words are specific to their domains—often referred to as Tier 3 words—including those that arise in multiple domains (e.g., chemical constituents, constituent voting patterns). To learn words, students have to read multiple selections from multiple authors within key domains of learning.

The problem is that, in any given instance, it is not the entire spectrum of a word's history, meanings, usages, and features that matters, but only those aspects that are relevant to the surrounding context. That means, first, that the reader's internal representation of the word must be sufficiently complete and well-articulated so that the intended meaning is available and, second, that the reader must understand the context well enough to select the intended meaning – which, in turn, depends on good understanding of the surrounding words of the passage.

Key to students' vocabulary development is building rich and flexible word knowledge. Students need plentiful opportunities to use and respond to the words they learn, through playful informal talk, discussion, and reading or being read to and responding to what is read. Along with attention to academic (Tier 2 words) and content-specific words (Tier 3 words), students benefit from instruction about the connections and patterns in language. Developing in students an analytical attitude toward the logic and sentence structure of their texts alongside an awareness of word parts, word origins, and word relationships provides students with a sense of how language works so that syntax, morphology and etymology can become useful cues to word in building meaning as students encounter new words and concepts in their reading.[41] As students are exposed to and interact with language throughout their school careers, they are able to acquire understandings of word meanings, build awareness of the workings of language, and apply word meanings to comprehend and produce language.

[40] Indeed, the fact that these words transcend specific disciplines argues for them being taught and used across the curriculum by all teachers.
[41] Beck, I. L., McKeown, M. & Kucan, L. (2008). *Creating robust vocabulary: Frequently asked questions and extended examples.*

APPENDIX B

Exemplars of Reading Text Complexity and Quality, ELA K–12

Selecting Text Samples

The following text samples primarily serve to exemplify the level of complexity and quality that the *Standards* require all students in a given grade band to engage with while additionally suggesting the breadth of text types that students should encounter. The choices should serve as useful guideposts in helping educators select texts of similar **complexity**, **quality**, and **breadth** for their own classrooms. The process of text selection was guided by these criteria in the following fashion:

- *Complexity.* Appendix A describes in detail a three-part model of measuring text complexity based on qualitative and quantitative indices of inherent text difficulty balanced with educators' professional judgment. In selecting texts to serve as exemplars, the work group began by soliciting contributions from teachers, educational leaders, and researchers who have experience working with students in the grades for which the texts have been selected. These contributors were asked to propose texts that they or their colleagues have used successfully with students in a given grade band. The work group made final selections based in part on whether qualitative and quantitative measures identified by the *Standards* indicated that the proposed texts were of sufficient complexity for the grade band. For those types of texts—particularly poetry and multimedia sources—for which these measures are not as well suited, professional judgment necessarily played a greater role in selection.

- *Quality.* While it is possible to have high-complexity texts of low inherent quality, the work group solicited only texts of recognized value. From the pool of submissions gathered from outside contributors, the work group selected classic or historically significant texts as well as contemporary works of comparable literary merit, cultural significance, and/or content richness.

- *Breadth.* After identifying texts of appropriate complexity and quality, the work group applied a range of secondary criteria to ensure that the samples presented in each band represented as broad a range of sufficiently complex, high-quality texts as possible. Among the factors considered were initial publication date, authorship, and subject matter.

Copyright and Permissions

For those exemplar texts not in the public domain, the work group is seeking permission from the rights holders for limited use by the Common Core State Standards Initiative of the National Governors Association.

While we await permissions grants from the rights holders, we will make use of texts under a conservative interpretation of Fair Use, which allows limited, partial use of copyrighted text for a nonprofit, educational purpose as long as that purpose does not impair the rights holder's ability to seek a fair return for his or her work.

Please note that these texts are included solely as exemplars in support of the *Standards*. Any additional use of those texts that are not in the public domain, such as for classroom use or curriculum development, requires independent permission from the rights holders. The texts may not be copied or distributed in any way other than as part of the overall Common Core Standards Initiative document.

Organization and Excerpting

Texts are organized first by category, with narrative texts followed by drama and poetry and then the informational texts. Within each category, the texts are organized by date, usually of first publication, beginning with the oldest and ending with the most recent. In some cases, the date of any given work may be open to debate.

The excerpts given here are meant to stand in for the full work in most instances. Works that are not in the public domain may be represented by short excerpts or snippets while the work group awaits permission from the rights holders for full use.

Media Texts

Selected excerpts are accompanied by annotated links to related media texts available online at the time of the publication of this document.

Kindergarten to Grade 1 Exemplar Texts

Narratives

Little Bear by Else Holmelund Minarik, illustrated by Maurice Sendak (1957)

Are You My Mother? by P. D. Eastman (1960)

The Fire Cat by Esther Averill (1960)

Green Eggs and Ham by Dr. Seuss (1960)

Put Me in the Zoo by Robert Lopshire (1960)

Frog and Toad Together by Arnold Lobel (1971)

Owl at Home by Arnold Lobel (1975)

Henry and Mudge: The First Book of Their Adventures by Cynthia Rylant, illustrated by Suçie Stevenson (1987)

Poppleton in Winter by Cynthia Rylant, illustrated by Mark Teague (2001)

Cowgirl Kate and Cocoa by Erica Silverman, illustrated by Betsy Lewin (2005)

Poetry

"Mix a Pancake" by Christina G. Rossetti (1893)

"Singing-Time" by Rose Fyleman (1919)

"Halfway Down" by A. A. Milne (1924)

"As I Was Going to St. Ives" by Unknown, collected by Peter and Iona Opie (1951)

"Drinking Fountain" by Marchette Chute (1957)

"Poem" by Langston Hughes (1958)

"Wouldn't You?" by John Ciardi (1961)

"In the Falling Snow" by Richard Wright (1973)

"Covers" by Nikki Giovanni (1980)

"It Fell in the City" by Eve Merriam (1985)

"Celebration" by Alonzo Lopez (1993)

"Two Tree Toads" by Jon Agee (2009)

Informational Texts

A Tree Is a Plant by Clyde Robert Bulla, illustrated by Stacey Schuett (1960)

My Five Senses by Aliki (1962)

Starfish by Edith Thacher Hurd, illustrated by Robin Brickman (1962)

What Do You Do With a Tail Like This? by Steve Jenkins & Robin Page (2003)

From Seed to Pumpkin by Wendy Pfeffer, illustrated by James Graham Hale (2004)

Mouse in a Meadow by John Himmelman (2005)

Petting Zoo by Dorling Kindersley (2005)

Meet the Meerkat by Darrin Lunde, illustrated by Patricia J. Wynne (2007)

"The Forest in Spring" in National Geographic Young Explorer! April 2009 (2009)

"Our Good Earth" in National Geographic Young Explorer, April 2009 (2009)

Read-Aloud Narratives

The Wonderful Wizard of Oz by L. Frank Baum (1900)

Little House in the Big Woods by Laura Ingalls Wilder, illustrated by Garth Williams (1932)

Mr. Popper's Penguins by Richard Atwater (1938)

Finn Family Moomintroll by Tove Jansson, translated by Elizabeth Portch (1948)

A Story A Story by Gail E. Haley (1970)

The Paper Crane by Molly Bang (1985)

Read-Aloud Poetry

"The Owl and the Pussycat" by Edward Lear (1871)

"April Rain Song" by Langston Hughes (1932)

"The Fox's Foray" – Traditional rhyme in Opie / *The Oxford Nursery Rhyme Book* (1955)

Over in the Meadow by John Langstaff, illustrated by Feodor Rojankovsky (1957)

Zin! Zin! Zin! a Violin by Lloyd Moss, illustrated by Marjorie Priceman (1995)

Read-Aloud Informational Texts

The Year at Maple Hill Farm by Alice and Martin Provensen (1978)

Fire! Fire! by Gail Gibbons (1984)

Follow the Water from Brook to Ocean by Arthur Dorros (1991)

Amazing Whales! by Sarah L. Thomson (2005)

Living Sunlight: How Plants Bring the Earth to Life by Molly Bang & Penny Chisholm, illustrated by Molly Bang (2009)

Grades 2-3 Exemplar Texts

Narratives

My Father's Dragon by Ruth Stiles Gannett, illustrated by Ruth Chrisman Gannett (1948)

Crow Boy by Taro Yashima (1955)

Amos & Boris by William Steig (1971)

The Treasure by Uri Shulevitz (1978)

The Stories Julian Tells by Ann Cameron (1981)

Sarah, Plain and Tall by Patricia MacLachlan (1985)

Tops and Bottoms by Janet Stevens (1995)

The Raft by Jim LaMarche (2000)

The Lighthouse Family: The Storm by Cynthia Rylant, illustrated by Preston McDaniels (2002)

The One-Eyed Giant (Book One of Tales from the Odyssey) by Mary Pope Osborne (2002)

Poetry

"Autumn" by Emily Dickinson (1893)

"Who Has Seen the Wind" by Christina G. Rossetti (1893)

"Afternoon on a Hill" by Edna St.Vincent Millay (1917)

"Stopping by Woods on a Snowy Evening" by Robert Frost (1923)

"Something Told the Wild Geese" by Rachel Field (1934)

"Grandpa's Stories" by Langston Hughes (1958)

"A Bat Is Born" by Randall Jarrell (1964)

"Knoxville, Tennessee" by Nikki Giovanni (1968)

"Weather" by Eve Merriam (1969)

"Eating While Reading" by Gary Soto (1995)

Informational Texts

A Medieval Feast by Aliki (1983)

Maps & Globes by Jack Knowlton, pictures by Harriet Barton (1985)

Sunshine Makes the Seasons by Franklyn M. Branley (1985)

From Seed to Plant by Gail Gibbons (1991)

Throw Your Teeth on the Roof: Tooth Traditions Around the World by Selby B. Beeler, illustrated by G. Brian Karas (1998)

So You Want to Be President? By Judith St.George, illustrated by David Small (2000)

Boy, Were We Wrong About Dinosaurs by Kathleen V. Kudlinski, illustrated by S.D. Schindler (2005)

Bat Loves the Night by Nicola Davies, illustrated by Sarah Fox-Davies (2008)

Moonshot: The Flight of Apollo 11 by Brian Floca (2009)

Where Do Polar Bears Live? by Sarah L. Thomson, illustrated by Jason Chin (2010)

Read-Aloud Narratives

"How the Camel Got His Hump" in *Just So Stories* by Rudyard Kipling (1902)

The Thirteen Clocks by James Thurber (1950)

The Cricket in Times Square by George Selden, illustrated by Garth Williams (1960)

The Search for Delicious by Natalie Babbitt (1969)

Bud, Not Buddy by Christopher Paul Curtis (1999)

Read-Aloud Poetry

"The Jumblies" by Edward Lear (1871)

"The Pied Piper of Hamelin" by Robert Browning (1888)

"Your World" by Georgia Douglas Johnson (1918)

"The Song of the Jellicles" by T.S. Eliot (1939)

"Fireflies" by Paul Fleischman, illustrated by Eric Beddows (1988)

Read-Aloud Informational Texts

Lincoln: A Photobiography by Russell Freedman (1987)

A Drop of Water: A Book of Science and Wonder by Walter Wick (1997)

The Museum Book: A Guide to Strange and Wonderful Collections by Jan Mark, illustrated by Richard Holland (2007)

What the World Eats by Faith D'Aluisio, photographed by Peter Menzel (2008)

Wild Tracks! A Guide to Nature's Footprints by Jim Arnosky (2008)

Grades 4–5 Exemplar Texts

Narratives

Alice in Wonderland by Lewis Carroll (1865)

The Secret Garden by Frances Hodgson Burnett (1911)

The Black Stallion by Walter Farley (1941)

The Little Prince by Antoine de Saint-Exupery (1943)

Tuck Everlasting by Natalie Babbitt (1975)

"Zlateh the Goat" by Isaac Bashevis Singer (1984)

M. C. Higgins, the Great by Virginia Hamilton (1993)

The Birchbark House by Louise Erdrich (1999)

Bud, Not Buddy by Christopher Paul Curtis (1999)

[Also a read-aloud narrative at Grades 2–3]

Where the Mountain Meets the Moon by Grace Lin (2009)

Poetry

"The Echoing Green" from *Songs of Innocence* by William Blake (1789)

"The New Colossus" by Emma Lazarus (1883)

"Casey at the Bat" by Ernest Lawrence Thayer (1888)

"A Bird Came Down the Walk" by Emily Dickinson (1893)

"Fog" by Carl Sandburg (1916)

"Dust of Snow" by Robert Frost (1923)

"Little Red Riding Hood and the Wolf" by Roald Dahl (1982)

"They Were My People" by Grace Nichols (1988)

"Words Free As Confetti" by Pat Mora (1996)

Informational Texts

Discovering Mars by Melvin Berger (1992)

Let's Investigate Marvelously Meaningful Maps by Madelyn Wood Carlisle (1992)

Hurricanes: Earth's Mightiest Storms by Patricia Lauber (1996)

The Kid's Guide to Money by Steve Otfinoski (1996)

Toys: Amazing Stories behind Some Great Inventions by Don Wulffson (2000)

"Good Pet, Bad Pet" by Elizabeth Schleichert from *Ranger Rick* (2002)

"Ancient Mound Builders" by E. Barrie Kavash from *Cobblestone* (2003)

About Time: A First Look at Time and Clocks by Bruce Koscielniak (2004)

England the Land by Erinn Banting (2004)

A History of US by Joy Hakim (2005)

My Librarian Is a Camel by Margriet Ruurs (2005)

Horses by Seymour Simon (2006)

Quest for the Tree Kangaroo by Sy Montgomery (2006)

Volcanoes by Seymour Simon (2006)

We Are the Ship: The Story of Negro League Baseball by Kadir Nelson (2008)

"Kenya's Long Dry Season" by Nellie Gonzalez Cutler from *Time for Kids* (2009)

"Seeing Eye to Eye" by Leslie Hall from *National Geographic Explorer* (2009)

"Computer" from *Britannica Junior Encyclopedia* (2010)

"Telescopes" by Ronan, Colin A. from *The New Book of Knowledge* (2010)

"Underground Railroad" by Henrietta Buckmaster from *The New Book of Knowledge* (2010)

Grades 6–8 Exemplar Texts

Narratives

Little Women by Louisa May Alcott (1869)

The Adventures of Tom Sawyer by Mark Twain (1876)

A Wrinkle in Time by Madeline L'Engle (1962)

The Dark is Rising by Susan Cooper (1973)

Dragonwings by Laurence Yep (1975)

Roll of Thunder, Hear My Cry by Mildred Taylor (1976)

"The People Could Fly" from *The People Could Fly: American Black Folktales* by Virginia Hamilton (1985)

The Tale of the Mandarin Ducks by Katherine Paterson (1990)

"Eleven" from *Woman Hollering Creek: And Other Stories* by Sandra Cisneros (1992)

Black Ships Before Troy: The Story of the Iliad by Rosemary Sutcliff (1993)

Drama

A Midsummer Night's Dream by William Shakespeare (1596)

The Diary of Anne Frank by Frances Goodrich and Albert Hackett (1958)

Poetry

"Paul Revere's Ride" by Henry Wadsworth Longfellow (1861)

"O Captain, My Captain" by Walt Whitman (1865)

"Jabberwocky" by Lewis Carroll (1872)

"Twelfth Song of Thunder" from *The Mountain Chant: A Navajo Ceremony* Navajo tradition (1887)

"The Railway Train" by Emily Dickinson (1893)

"The Song of Wandering Aengus" by W. B. Yeats (1899)

"Chicago" from *Chicago Poems* (1914) by Carl Sandburg

"Stopping by a Wood on a Snowy Evening" by Robert Frost (1923)

"I, Too" by Langston Hughes (1925)

"The Book of Questions" by Pablo Neruda (1973) translated by William O'Daly

"Oranges" from *Black Hair* (1985) by Gary Soto

"A Poem for My Librarian, Mrs. Long" from *Acolytes* (2007) by Nikki Giovanni

Informational Texts (English Language Arts)

"Allegory of the Cave" from *The Republic* by Plato (380 BCE) translated by G.M.A. Grube

"Letter on Thomas Jefferson" by John Adams (1822)

Narrative of the Life of Frederick Douglass an American Slave by Frederick Douglass (1845)

"Gettysburg Address" by Abraham Lincoln (1863)

"Lee Surrenders to Grant" by Horace Porter (1865)

"Blood, Toil, Tears and Sweat" by Winston Churchill (1940)

Travels with Charley: In Search of America by John Steinbeck (1962)

"Address to the Nation on Civil Rights" by John F. Kennedy (1963)

I Know Why the Caged Bird Sings by Maya Angelou (1969)

"Address to Students at Moscow State University" by Ronald Reagan (1988)

Grades 9-10 Exemplar Texts

Narratives

The Odyssey by Homer (8th century B.C.E.) translated by Robert Fagles

"The Nose" by Nikolai Gogol (1836) translated by Ronald Wilks

"The Gift of the Magi" by O. Henry (1906)

The Grapes of Wrath by John Steinbeck (1939)

Fahrenheit 451 by Ray Bradbury (1953)

"I Stand Here Ironing" by Tillie Olsen (1956)

The Killer Angels by Michael Shaara (1975)

The Joy Luck Club by Amy Tan (1989)

In the Time of the Butterflies by Julia Alvarez (1994)

The Book Thief by Marcus Zusak (2005)

Drama

The Tragedy of Romeo and Juliet by William Shakespeare (1592)

The Glass Menagerie by Tennessee Williams (1944)

Rhinoceros by Eugene Ionesco (1959) translated by Derek Prouse

Master Harold...and the Boys by Athol Fugard (1982)

Poetry

"Song" by John Donne (1635)

"Ozymandias" by Percy Bysshe Shelley (1810)

"The Raven" by Edgar Allen Poe (1845)

"We Grow Accustomed to the Dark" by Emily Dickinson (1893)

"Loveliest of Trees" by A. E. Houseman (1896)

"Lift Ev'ry Voice and Sing" by James Weldon Johnson (1900)

"Domination of Black" by Wallace Stevens (1916)

"Yet Do I Marvel" by Countee Cullen (1925)

"Women" by Alice Walker (1970)

"I Am Offering This Poem to You" by Jimmy Santiago Baca (1977)

Informational Texts (English Language Arts)

"Preface to Lyrical Ballads" by William Wordsworth (1800)

"Speech to the Second Virginia Convention" by Patrick Henry (1775)

"Second Inaugural Address" by Abraham Lincoln (1865)

"State of the Union Address" by Franklin Delano Roosevelt (1941)

"I Am an American Day Address" by Learned Hand (1944)

"Remarks to the Senate in Support of a Declaration of Conscience" by Margaret Chase Smith (1950)

"Address at the March on Washington" by Martin Luther King, Jr. (1963)

"Nobel Prize Acceptance Speech" by Elie Wiesel (1986)

"A Quilt of a Country" by Anna Quindlen (2001)

Grades 11-12 Exemplar Texts

Narratives

Pride and Prejudice by Jane Austen (1813)

Jane Eyre by Charlotte Brontë (1848)

"At Home" by Anton Chekov (1887) translated by Constance Garnett

The Great Gatsby by F. Scott Fitzgerald (1925)

As I Lay Dying by William Faulkner (1930)

Their Eyes Were Watching God by Zora Neale Hurston (1937)

Black Boy by Richard Wright (1945)

The Adventures of Augie March by Saul Bellow (1949)

The Bluest Eye by Toni Morrison (1970)

Dreaming in Cuban by Cristina García (1992)

The Namesake by Jhumpa Lahiri (2003)

Drama

Macbeth by William Shakespeare (c1611)

The Importance of Being Earnest by Oscar Wilde (1895)

Death of a Salesman by Arthur Miller (1949)

A Raisin in the Sun by Lorraine Hansberry (1959)

Poetry

"A Valediction Forbidding Mourning" by John Donne (1633)

"Ode on a Grecian Urn" by John Keats (1820)

"Song of Myself" from *Leaves of Grass* by Walt Whitman (c1860)

"Because I Could Not Stop for Death" by Emily Dickinson (1890)

"Mending Wall" by Robert Frost (1914)

"Ode to My Suit" by Pablo Neruda (1954) translated by Margaret Sayers Peden

"Sestina" by Elizabeth Bishop (1983)

"The Latin Deli: An Ars Poetica" by Judith Ortiz Cofer (1988)

"Demeter's Prayer to Hades" by Rita Dove (1995)

"Man Listening to Disc" by Billy Collins (2001)

Informational Texts (English Language Arts)

The Declaration of Independence by Thomas Jefferson (1776)

The Crisis by Thomas Paine (1776)

Walden by Henry David Thoreau (1854)

"Society and Solitude" by Ralph Waldo Emerson (1857)

"The Fallacy of Success" by G.K. Chesterton (1909)

The American Language by H.L. Mencken (1938)

"Politics and the English Language" by George Orwell (1946)

"Abraham Lincoln and the Self-Made Myth" by Richard Hofstadter (1948)

"Letter from Birmingham City Jail" by Martin Luther King, Jr. (1963)

"Mother Tongue" by Amy Tan (1990)

"Take the Tortillas Out of Your Poetry" by Rudolfo Anaya (1995)

The Common Core K–12 Mathematics Standards

This document provides grade level standards for mathematics in grades K–8, and high school standards organized under the headings of the *College and Career Readiness Standards in Mathematics*. Students reaching the readiness level described in that document (adjusted in response to feedback) will be prepared for non-remedial college mathematics courses and for training programs for career-level jobs. Recognizing that most students and parents have higher aspirations, and that ready for college is not the same as ready for mathematics-intensive majors and careers, we have included in this document standards going beyond the readiness level. Most students will cover these additional standards. Students who want the option of entering STEM fields will reach the readiness level by grade 10 or 11 and take precalculus or calculus before graduating from high school. Other students will go beyond readiness through statistics to college. Other pathways can be designed and available as long as they include the readiness level. The final draft of the K–12 standards will indicate which concepts and skills are needed to reach the readiness level and which go beyond. We welcome feedback from states on where that line should be drawn.

English Language Learners in Mathematics Classrooms

English language learners (ELLs) must be held to the same high standards expected of students who are already proficient in English. However, because these students are acquiring English language proficiency and content area knowledge concurrently, some students will require additional time and all will require appropriate instructional support and aligned assessments.

ELLs are a heterogeneous group with differences in ethnic background, first language, socio-economic status, quality of prior schooling, and levels of English language proficiency. Effectively educating these students requires adjusting instruction and assessment in ways that consider these factors. For example ELLs who are literate in a first language that shares cognates with English can apply first-language vocabulary knowledge when reading in English; likewise ELLs with high levels of schooling can bring to bear conceptual knowledge developed in their first language when reading in a second language. On the other hand, ELLs with limited or interrupted schooling will need to acquire background knowledge prerequisite to educational tasks at hand. As they become acculturated to US schools, ELLs who are newcomers will need sufficiently scaffolded instruction and assessments to make sense of content delivered in a second language and display this content knowledge.

While some ELLs are economically and educationally advantaged, this is not the case for many of these students. Moreover, once in the U.S., the majority of ELLs attend high poverty schools with high percentages of other ELLs. These schools often lack the resources and capacity needed to help ELLs reach high academic standards. However, schools and districts can be assisted in providing a positive learning environment that capitalizes on the linguistic and cultural diversity of the student body.

Language proficiency is a complex construct that can reflect proficiency in multiple contexts, modes, and academic disciplines. Current measures of language proficiency may not give an accurate picture of an individual's language competence. In particular, we do not have measures or assessments for language proficiency related to competence in mathematics for different ages or mathematical topics. These two facts can confuse discussions of mathematics instruction for ELLs. In particular, because of the complexity of language proficiency and the limitations of the label "English Language Learner" as currently implemented, instructional decisions should not be made solely based on that label. However, research on language and mathematics education for this student population does provide a few clear results to guide practices for teaching ELLs mathematics:

- English learners can participate in mathematical discussions as they learn English (Moschkovich, 1999a, 2002, 2007a, 2007b, 2007d).

- Mathematics instruction for students who are learning English should draw on multiple resources and modes available in classrooms—such as objects, drawings, inscriptions, and gestures—as well as home languages and mathematical experiences outside of school.

- While mathematics instruction for ELLs should address mathematical discourse and academic language, this involves much more than vocabulary instruction.

Basic principles for improving the mathematics achievement of ELLs

Language is a resource for learning mathematics, it is not only a tool for communicating, but also a tool for thinking and reasoning mathematically. All languages (English, Spanish, Tagalog,etc.) and language varieties (different dialects, home or everyday ways of talking, vernacular, slang, etc.) provide resources for mathematical thinking, reasoning, and communicating.

Regular and active participation in the classroom—not only reading and listening but also discussing, explaining, writing, representing, and presenting—is crucial to ELLs' success in mathematics, and that ELLS can produce explanations, presentations, etc. and participate in classroom discussions *as they are learning English* (Moschkovich, 1999 and 2007).

- ELLs, like English-speaking students, require regular access to teaching practices that are most effective for improving student achievement. These practices include: a) Keeping mathematical tasks at high-cognitive demand (Henningsen & Stein, 1997; Silver & Stein, 1996); b) teachers and students attend explicitly to concepts (Hiebert & Grouws, 2007), and c) students wrestle with important mathematics (Hiebert & Grouws, 2007).
- See the evidence of ELLs' mathematical thinking, hear how ELLs use language to communicate about mathematics, understand the competence that ELLS bring to the classroom, build on this competence, and provide access to opportunities for advancing their mathematics learning.

Overall, research suggests that:

- Classroom instruction should allow bilingual students to choose the language they prefer for arithmetic computation. Language switching can be swift, highly automatic, and facilitate rather than inhibit solving word problems in the second language, as long as the student's language proficiency is sufficient for understanding the text of the word problem.
- Instruction should ensure that students understand the text of word problems before they attempt to solve them.
- Instruction should include a focus on "mathematical discourse" and "academic language" because these are important for English learners. Although it is crucial that students who are learning English have opportunities to communicate mathematically, this is not primarily a matter of learning vocabulary. Students learn to participate in mathematical reasoning, not by learning vocabulary, but by making conjectures, presenting explanations, and/or constructing arguments.
- While vocabulary instruction is important, it is not sufficient for supporting mathematical communication. Furthermore, vocabulary drill and practice are not the most effective instructional practices for learning vocabulary. Instead, research has demonstrated that vocabulary learning occurs most successfully through instructional environments that are language-rich, actively involve students in using language, require that students both understand spoken or written words and also express that understanding orally and in writing, and require students to use words in multiple ways over extended periods of time (Blachowicz, Camille, and Peter Fisher, 2000). To develop written and oral communication skills, students need to participate in negotiating meaning for mathematical situations and in mathematical practices that require output from students (Moschkovich, 2009).

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Access for Students with Disabilities

The Common Core Standards articulate rigorous expectations in the areas of mathematics, reading, writing, and speaking and listening in order to prepare students to be college- and career-ready. These standards identify the knowledge and skills students must acquire in order to be successful. Research shows that students with disabilities are capable of high levels of learning and should not be limited by low expectations and watered down curriculum. It is imperative that these highly capable students—regardless of their disability—are held to the same expectations articulated in the Core Standards as other students.[1]

However, *how* these high standards are taught is of the utmost importance in reaching students with special needs. When learning the knowledge and skills represented in the Core Standards, students with disabilities may need accommodations or—in exceptional cases—modified goals, incorporated in an individualized education program (IEP),[2] to help them access information or demonstrate their knowledge. Students might be precluded from reaching particular standards given the nature of the standard itself. In instances when a standard asks students to perform actions they are physically incapable of, students will need to be presented with alternative options to demonstrate similar knowledge and skills within the range of their abilities. Accommodations based on individual needs allow students of all disability levels to learn within the framework of the Core.

Meeting English Language Arts (ELA) Standards

Reading, writing, speaking, and listening standards often require accommodations for students with disabilities. In the case of students who are deaf, a standard that calls for "listening" should be interpreted to include reading sign language. In a similar vein, "speaking" as it occurs in standards for certain students with speech impairments should be read broadly to include "communication" or "self-expression." Students who are blind or have low vision should be able to read via Braille, screen reader technology, or other assistive technology to demonstrate their comprehension

[1] Research suggests that the vast majority of the population of students with intellectual impairments *can* achieve proficiency when they receive high quality instruction in the grade-level content and appropriate accommodations.
[2] According to the Individuals with Disabilities Act (IDEA), an IEP includes appropriate accommodations that are necessary to measure the individual achievement and functional performance of a child.

skills. "Writing" should not preclude the use of a scribe, computer, or speech-to-text technology for students with disabilities that interfere with putting pen to paper. In the case of students with intellectual impairments—less than 2 percent of the total population of all students and less than 20 percent of students with disabilities—accommodations should allow them to demonstrate their knowledge and skills through alternative modes like text to speech software or reading aloud. For these students, writing may involve the use of pictures to assist in illustrating plot or argument, or offering them the opportunity to "choose words and phrases" by selecting from options rather than generating direct answers. With appropriate accommodations and support, students with all levels of disabilities can participate in the general education curriculum and achieve grade-level proficiency with regard to the ELA content and skills articulated in the Core.

Meeting Mathematics Standards

In curriculum for students with disabilities, ELA skills often take precedence over mathematics understanding. However, most of these students can master mathematical concepts with accommodations in instructional delivery and the use of specialized technology, including computers and calculators. For example, students with visual disabilities might require enhanced verbal descriptions from teachers and the use of large-print to demonstrate subsequent knowledge. Students who are deaf might require visual aids such as charts, diagrams, and mental images and increased reliance on computers and calculators. Manipulatives can enable students with intellectual impairments to grasp abstract concepts and continue learning. Evidence suggests that students with disabilities, even those with full intellectual abilities, tend to lag behind their peers in mathematics achievement; strong curriculum that gives equal priority to mathematics and ELA will help these students succeed.

In short, while the standards remain and retain high expectations of students, they may need to be translated and occasionally modified to appropriately apply to students with disabilities, including all levels of intellectual impairment. Every student deserves to be treated with respect, and every student deserves an outstanding education. Promoting a culture of high expectations for all students is a fundamental goal of the Core Standards. Reaching students with disabilities requires broadening our understanding of what the standards say and being ready to make appropriate accommodations and/or modifications to meet individual students' needs.

How to read this document

The K–8 standards are organized by grade level. Within each grade level there are several headings, each one the title of a single progression having significant presence in the grade in question. Under each of these progression headings, there appear **core standards**, divided into standards describing concepts students should understand and standards describing skills students should acquire. A typical progression spans a number of grades, but does not span all of K-8. The progressions and their grade spans are listed at the end of the document.

The high school standards are not organized by grade level or by course, but rather are organized under headings of the *College and Career Ready Standards for Mathematics*: Expressions, Equations, Functions, Coordinates, Modeling, Statistics, Probability, and Geometry.[3] Subheadings under each heading refer either to mathematical practices or to principle topics, and core standards are listed under each subheading, as in the K-8 standards. The subheadings are not necessarily curricular units, but rather can describe concepts and skills that are revisited throughout a student's high school career. This design necessitates a future effort to develop course sequences (either traditional or integrated).

[3] Number and Quantity are not included, since they are principally the domain of K–8. In response to feedback, the headings have been reordered and Shape has been renamed to Geometry.

Mathematical Practice[4]

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 Standards · Students can and do:

1 Attend to precision.

Mathematically proficient students organize their own ideas in a way that can be communicated precisely to others, and they analyze and evaluate others' mathematical thinking and strategies noting the assumptions made. They clarify definitions. They state the meaning of the symbols they choose, are careful about specifying units of measure and labeling axes, and express their answers with an appropriate degree of precision. Rather than saying, "let v be speed and let t be time," they would say "let v be the speed in meters per second and let t be the elapsed time in seconds from a given starting time." They recognize that when someone says the population of the United States in June 2008 was 304,059,724, the last few digits indicate unwarranted precision.

2 Construct viable arguments.

Mathematically proficient students understand and use stated assumptions, definitions and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They break things down into cases and can recognize and use counterexamples. They use logic to justify their conclusions, communicate them to others and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose.

3 Make sense of complex problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They consider analogous problems, try special cases and work on simpler forms. They evaluate their progress and change course if necessary. They try putting algebraic expressions into different forms or try changing the viewing window on their calculator to get the information they need. They look for correspondences between equations, verbal descriptions, tables, and graphs. They draw diagrams of relationships, graph data, search for regularity and trends, and construct mathematical models. They check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?"

4 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern. For example, in $x^2 + 5x + 6$ they can see the 5 as $2 + 3$ and the 6 as 2×3. 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 $5 - 3(x$

[4] Slated for review and editing, based on feedback to the College and Career Readiness Standards, and in order to apply more naturally to elementary school as well.

$-y)^2$ as 5 minus a positive number times a square, they see that it cannot be more than 5 for any real numbers x and y.[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 Reason quantitatively.

Quantitative reasoning is a way of thinking by which one reasons with quantities and about relations among quantities. It entails habits of creating a coherent image of the problem at hand; considering the units involved; continually attending to the meaning of quantities, not just how to compute them; and having multiple images of a concept and being flexible in transitioning among them. In problems dealing with quantitative relationships, students exercise two inseparable abilities: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referential meanings for the symbols involved in the manipulation.

7 Make strategic decisions about the use of technological tools.

Mathematically proficient students consider the available tools when solving a mathematical problem, whether pencil and paper, ruler, protractor, graphing calculator, spreadsheet, computer algebra system, statistical package, or dynamic geometry software. They are familiar enough with all of these tools to make sound decisions about when each might be helpful. They use mathematical understanding and estimation strategically, attending to levels of precision, to ensure appropriate levels of approximation and to detect possible errors. They are able to use these tools to explore and deepen their understanding of concepts.

Mathematics: Kindergarten[5]

Developing Coherent Understanding

[Temporarily removed for editing.]

Counting and Cardinality

Core Standards · Students understand that:

1. The number words have a standard order.
2. In counting, each object receives one and only one number word.
3. The last number word tells the number of objects.
4. Numbers said later in the count refer to larger quantities.
5. Counting on 1 more is the same as adding 1. That is, one more than a number is the next number in the count.

Core Standards · Students can and do:

a. Count by ones from 1 to 100; count by tens to 100.[6]
b. Count forward from a given number within the known sequence (instead of always counting forward from 1).[7]
c. See collections of up to 10 objects as being composed of subgroups.
d. Count to answer "how many?" questions with up to 10 things in various arrangements (e.g., array, circular, scattered), or up to 25 things if in a row.
e. Write numerals from 1 to at least 30.

Base Ten Computation

Core Standards · Students understand that:

1. Ten ones make a tens unit (ten things can be thought of as bundled into a single unit).
2. Decade words refer to groups of tens units. For example, thirty refers to a group of three tens units.
3. A teen number[8] is a ten and some ones. The number 10 can be thought of as a ten and no ones.
4. Any teen number is larger than any single digit number. Teen numbers are ordered according to their ones digits.
5. A two-digit number is some tens and some ones. For example, 29 is two tens and nine ones.

Core Standards · Students can and do:

a. Make 10 with each number from 1 to 9 (i.e., know the number that makes 10 with the given number).
b. Show each teen number as a ten and some ones.

Early Relations and Operations

Core Standards · Students understand that:

[5] Some material is used verbatim from National Research Council. (2009). *Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity*. Committee on Early Childhood Mathematics, Christopher T. Cross, Taniesha A. Woods, and Heidi Schweingruber, Editors. Center for Education, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.
[6] To "count" here means only to say the number words, not to determine how many objects are in a collection.
[7] To "count" here means only to say the number words, not to determine how many objects are in a collection.
[8] Glossary: Teen number. A whole number that is greater than or equal to 11 and less than or equal to 19.

1. Adding is putting two groups together or putting some more with a group, and subtracting is taking some from a group.
2. Addition and subtraction can be represented with physical or mental objects (including fingers), pictures, drawings, sounds (e.g. number words), motions, or equations.
3. Adding can be recorded by an expression, as when "three more than six" is recorded as $6 + 3$, or by an equation that also shows the answer ($6 + 3 = 9$). Likewise, subtracting can be recorded by an expression, as when "how much more than 9 is 5" is recorded as $9 - 5$, or by an equation that also shows the answer ($9 - 5 = 4$).
4. Breaking apart a group can be recorded in an equation such as $8 = 5 + 3$. Breaking apart a group in more than one way can be recorded in an equation such as $7 + 6 = 10 + 3$.
5. In all equations, the equals sign indicates that the values on either side are the same.

Core Standards · Students can and do:

a. Use matching and counting strategies to decide whether one set is more than, less than, or equal to another set in number of objects (less than or equal to 10).
b. Compare and order numbers less than or equal to 10.
c. Use concrete objects to determine the answer to addition and subtraction word problems and additions and subtractions with totals less than or equal to 10.
d. Experience enough problem situations so that additions to five and the corresponding subtractions and some additions and subtractions within ten become well known.

Quantity and Measurement

Core Standards · Students understand that:

1. Things have attributes—such as length, weight, capacity, loudness, softness, and so on. A single thing might have several attributes of interest (as when we focus on a child's height and gender).

Core Standards · Students can and do:

a. Directly compare two objects to see which one has "more of" a shared attribute.
b. Rank three objects by a shared attribute (especially length), and use transitivity[9] to compare two objects indirectly.
c. ♦ Classify objects or people into predetermined categories, and count the numbers in each category. List the categories and counts in order by count. (Each category count less than or equal to 10.)[10]

Shapes

Core Standards · Students understand that:

1. Names refer to shapes regardless of orientation or overall size.[11]

Core Standards · Students can and do:

a. Study a range of 2D and 3D shapes, in different sizes and orientations, and discuss their properties, similarities, and differences using informal language.

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[9] Glossary: Transitive property of measurement order: If one object is bigger than a second, and the second object is bigger than a third object, then the first object is bigger than the third object.
[10] The symbol ♦ indicates material in data analysis and statistics that appears under another progression heading in order to make an important connection.
[11] For example, a square rotated to form a "diamond" is still a square, even though it is rotated. Students at this grade might need to physically rotate a shape until it is "level" before they can correctly name it.

b. Move shapes using translations, reflections and rotations.[12]

[12] This is not meant to be assessed by showing students a picture of a shape and asking them to draw or select a translated, reflected or rotated version of it.

Mathematics: First Grade[13]

Developing Coherent Understanding

[Temporarily removed for editing.]

Early Relations and Operations

Core Standards · Students understand that:

1. Counting on is an efficient method of counting all, in which the initial count of the first addend is omitted.
2. Addition and subtraction apply to situations of joining, separating, part-part-whole, and comparing quantities to one another.[14] These situations can be represented by addition and subtraction equations such as $7 + 5 = 12$, $10 = 5 + 5$, and so on.
3. Addition and subtraction are inverse operations; that is $10 - 8$ can be found by thinking $8 + 2 = 10$.
4. When any two of the numbers in an addition or subtraction equation are known, the unknown number can be found.
5. One-to-one dealing of objects in a collection (e.g., "One for you, one for me, one for him, …") creates fair shares.

Core Standards · Students can and do:

a. Use counting on strategies or decomposing strategies for additions and subtractions within 20.
b. Solve addition problems containing three addends.
c. Use objects, pictures and story contexts to explain what happens when the order of addends in a sum is changed, when 0 is added to a number, and when one addend in a sum is increased by 1 and another decreased by 1.
d. Experience enough problem situations so that many or all sums and differences within 20 become well known.
e. Use drawings and equations to represent and solve word problems involving addition and subtraction.[15]
f. ♦ Organize, represent and interpret data with several categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another
g. Create *n* fair shares from a collection of objects. Identify the size of one share, and recognize the original collection as *n* copies of a single share.

Quantity and Measurement

Core Standards · Students understand that:

1. Lengths can be added by placing long objects, rods, or unit cubes end to end in a straight line. The total length is the same in whatever order the rods are placed.

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[13] Some material is used verbatim from National Research Council. (2009, op. cit.)

[14] In join and separate problems, there is change over time. In part-part-whole problems, two quantities make up a whole in a static situation. Compare problems involve two quantities and the difference between them. Compare problems add specificity to the notions of greater than and less than.

[15] Include join, separate, part-part-whole, and compare problems, with unknowns in all positions. Represent these situations with equations that use a small square or a ? for the unknown.

2. Lengths can be compared by placing rods side by side, with one end lined up. The difference in length is how far the longer extends beyond the end of the shorter.
3. Lengths are measured (assigned numerical values) by comparing them to other lengths—that is, by using another object as a length unit. The length of an object can be expressed numerically by counting the number of length units that span it with no gaps or overlaps.
4. When an object or figure is decomposed into several pieces, the length of the whole can be found by placing the pieces end to end in any order.
5. A sum of two whole numbers represents a total length; a difference of two whole numbers represents a difference in length.
6. Durations of time are measured by comparing them to other durations of time, such as the earth's rotation period, or the time a minute hand takes to complete a circle around a clock face.

Core Standards · Students can and do:

a. Using an object as a length unit, measure, compare and estimate length.[16]
b. Using an object as a length unit, determine total length by adding lengths of two parts.[17] Compare lengths using addition and subtraction.
c. Decompose circles and rectangles into 2 and 4 equal parts. Describe the parts using the words "halves" and "quarters," and using the phrases "half of" and "quarter of." Describe the wholes as twice or four times as large as the parts.
d. Tell time in hours from clocks; subtract to find whole-hour durations on a clock (within AM or within PM).

Base Ten Computation

Core Standards · Students understand that:

1. In comparing two-digit numbers, the number with more tens units is larger; if the number of tens units is the same in each, the number of ones units decides.
2. In adding or subtracting 2-digit numbers, one adds or subtract like units (tens units and tens units, or ones units and ones units).

Core Standards · Students can and do:

a. Count to 100 or beyond, switching appropriately to the new decade after a 9 has been said in the ones place.
b. Compare and order numbers to 100 based on meanings of the tens and ones places.
c. Easily write numerals to 20; write numerals to 100.
d. Use break-apart and make-a-ten strategies to add and subtract with teen totals as in $7 + 6 = 10 + 3$ and $17 - 9 = 17 - 7 - 2$.
e. Find 10 more or 10 less than a number without having to count.
f. Add one-digit numbers to two-digit numbers, and add multiples of 10 to one-digit and two-digit numbers.
g. Represent addition of two-digit numbers using 10-rods and unit cubes,[18] including rearranging rods and cubes to show regrouping when needed.
h. Add two-digit numbers to two-digit numbers using strategies based on place value, Properties of Arithmetic, or the inverse relationship between addition and subtraction.

Shapes

[16] Select and iterate units, partition into equal parts, and compare lengths indirectly by using a reference length.
[17] Restrict to whole-unit lengths.
[18] Any concrete model that can show individual units and ten connected units will do.

Core Standards · Students understand that:

1. Several shapes can be joined together to form a larger shape. A single shape can also be visualized as a collection of smaller shapes joined together.
2. Decomposing larger shapes into equal-sized parts creates fair shares.
3. When an identical figure is decomposed into more fair shares, the shares are smaller than in the first instance.

Core Standards · Students can and do:

a. Form different 2D figures with cutouts of rectangles, squares, triangles, semicircles, and quarter-circles.[19]
b. Form different 3D figures with concrete models of cubes, rectangular prisms, cones, and cylinders.[20]
c. Decompose 2D shapes into rectangles, squares, triangles, semicircles, and quarter-circles, including decomposing into fair shares.

[19] From Singapore Primary 2
[20] From Singapore Primary 2

Mathematics: Second Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Operations and the Problems They Solve

Core Standards · Students understand that:

1. Addition and subtraction apply to situations of joining, separating, part-part-whole, and comparing quantities to one another.[21] These situations can be represented by addition and subtraction equations such as $17 + 5 = 22$, $36 = 56 - 26$, and so on.
2. Addition and subtraction are inverse operations; that is $100 - 98$ can be found by thinking $98 + 2 = 100$.
3. Numbers can be added and subtracted only when they refer to the same underlying unit.

Core Standards · Students can and do:

a. Use representations (objects, pictures, story contexts) to describe and justify properties of addition and subtraction.[22]
b. Produce full sets of related equations for addition and subtraction, as in the set $5 + 3 = 8$, $3 + 5 = 8$, $8 = 5 + 3$, $8 = 3 + 5$, $8 - 5 = 3$, $8 - 3 = 5$, $3 = 8 - 5$, $5 = 8 - 3$.
c. Solve up to two-step addition/subtraction word problems with whole numbers and whole number quantities within 100.[23]

Base Ten Computation

Core Standards · Students understand that:

1. A three-digit number is made up of hundreds, tens and ones units. Digits in each place are worth ten times as much as digits in the place to the right.
2. Comparison of numbers is decided by the leftmost digit, with subsequent digits breaking ties.
3. Three-digit numbers can be expanded into sums of hundreds, tens and ones units. In adding or subtracting, one adds or subtracts the units of each size; regrouping might be needed to write a total in standard form if there are too many of a unit, or to get enough of a unit to subtract from it.
4. The scheme for regrouping is the same at each place, because each unit is composed of ten of the smaller unit.

Core Standards · Students can and do:

a. Compare and order numbers to 1,000.

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[21] In join and separate problems, there is change over time. In part-part-whole problems, two quantities make up a whole in a static situation. Compare problems involve two quantities and the difference between them. Compare problems add specificity to the notions of greater than and less than.

[22] Include properties such as that the sum is the same when multiple addends are added in a different order; if adding two numbers gives a certain sum, then subtracting one of the addends from the sum results in the other addend; that if more is subtracted from a number, the difference is decreased and if less is subtracted the difference is increased; that in an addition problem, each addend can be taken apart and the parts can be recombined in any order without changing the sum.

[23] Include join, separate, part-part-whole, and compare problems, with unknowns in all positions. Represent these situations with equations that use a small square or a ? for the unknown.

b. Given a three-digit number, quickly find 10 more or 10 less than the number, and quickly find 100 more or 100 less than the number.
c. Rapidly add and subtract within 20.[24]
d. Add and subtract three-digit numbers to three-digit numbers using strategies based on place value, Properties of Arithmetic, or the inverse relationship between addition and subtraction.
e. Add and subtract three-digit numbers using an algorithm[25] based on place value and regrouping, such as the standard algorithm.
f. Explain why addition and subtraction strategies and algorithms work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

Quantity and Measurement

Core Standards · Students understand that:

1. 1 inch, 1 foot, 1 centimeter and 1 meter are conventionally defined lengths that allow standardized length measurements.
2. When measuring a length, if a smaller unit is chosen, more units must be iterated to measure the length in those units. But the length of an object itself does not depend on the choice of unit.
3. Units can be decomposed into smaller units, e.g. a foot contains 12 inches and a meter contains 100 centimeters. A small number of long units might form a greater total length than a large number of small units.
4. Sharing a circle or rectangle fairly among 2-6 shares creates equal parts, each of which is a single unit. Copying one unit by the number of pieces measures the whole in terms of the units.
5. A half, a third, or a quarter of a given rectangle encloses the same amount of space regardless of its shape.

Core Standards · Students can and do:

a. Measure, compare and estimate whole-unit lengths in units of inches, feet centimeters and meters.
b. Construct a number line with an origin (0) and a unit (1), marking off whole numbers one unit distance apart. Use a number line to represent sums and differences; determine lengths of intervals on the number line.
c. Decompose circles and rectangles into 2-6 equal parts. Describe the parts using the words "halves," "thirds," "half of," "a third of," etc. Describe the wholes as 2-6 times as large as the parts.
d. Construct a number line to 100 using tens-unit lengths, showing ones-unit lengths within a decade of interest. Explain regrouping by composing and decomposing concrete lengths.
e. ♦ Draw a bar graph (with single-unit scale) to represent a data set with several categories. Solve simple part-part-whole and compare problems using information presented in a bar graph.[26]
f. ♦ Identify correspondences in different representations of a data set with several categories.
g. Solve word problems involving dollar bills, quarters, dimes, nickels and pennies.

Shapes

Core Standards · Students understand that:

[24] Acceptable strategies include: mental strategies such as making a ten, use of fingers to assist in rapid counting-on, and producing sums or differences from memory.
[25] Glossary: Algorithm. A step by step routine that always gives some answer, rather than ever giving no answer; that always gives the right answer, and never gives a wrong answer; that can always be completed in a finite number of steps, rather than in an infinite number of steps; and that applies to all problems of a given type (e.g., adding any two multidigit whole numbers, or bisecting any angle). Cf. Wikipedia's "effective procedure," from which this definition is adapted.
[26] For part-part-whole problems, only sum-unknown problems are required to meet this standard. For compare problems, only difference-unknown problems are required to meet the standard.

1. A given category of shapes (e.g., triangles) can be divided into subcategories (e.g., isosceles triangles) on the basis of special properties. Conversely, different classes of shapes (e.g., squares and rectangles) can be united into a larger category (e.g., quadrilaterals) on the basis of shared properties.

Core Standards · Students can and do:

a. Draw and identify equilateral triangles, isosceles triangles,[27] squares and rectangles.[28]
b. Recognize squares and rectangles as examples of quadrilaterals; draw examples of quadrilaterals that are neither squares nor rectangles.
c. Draw and identify radii and diameters of a circle.
d. Recognize objects that resemble spheres, cylinders and rectangular prisms.

[27] Students at this grade need not understand that equilateral triangles are isosceles.
[28] Students at this grade need not understand that squares are rectangles.

Mathematics: Third Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Operations and the Problems They Solve

Core Standards · Students understand that:

1. Multiplication and division apply to situations of equal grouping, fair sharing, measuring, and comparing ("times as much").
   - An equation of the form $a \times b = n$ applies to a situation in which a groups of b things each make n things in all, or in which a copies of a continuous quantity of size b form a continuous quantity of size n. (See table for examples.)
   - An equation of the form $n \div a = b$ tells how many things, b, are in each group when n things are divided equally into a groups, or tells how large a quantity b results when a continuous quantity of size n is shared fairly into a shares. (See table for examples.)
   - An equation of the form $n \div b = a$ tells how many groups, a, result when n things are divided into equal groups of b things each, or tells how many fair shares, a, a quantity of size n yields when each share has size b. (See table for examples.)
   - Two quantities can be compared by multiplication or division. An equation of the form $a \times b = n$ means n is a times as much as b and b times as much as a.
2. Multiplication is commutative: The total number of things in a groups of b things each is the same as the total number of things in b groups of a things each, that is, $a \times b = b \times a$. Likewise, a copies of a continuous quantity of size b are equal in size to b copies of a continuous quantity of size a.
3. The area of a rectangle with whole number side lengths can be calculated by multiplying because the rectangle can be decomposed into equal rows (or columns) of unit squares.
4. Multiplication and division are inverse operations; that is $35 \div 7$ can be found by thinking $5 \times 7 = 35$. When any two of the numbers in a multiplication or division equation are known, the unknown number can be found.

	$3 \times 6 = 18$	$18 \div 3 = 6$	$18 \div 6 = 3$
Collections	3 rows of apples with 6 apples in each row are 18 apples.	If 18 apples are arranged into 3 equal rows, each row will have 6 apples in it.	If 18 apples are arranged into equal rows of 3 apples, there will be 6 rows.
Continuous Quantities	If you have enough ribbon to make 6 bows, then 3 times as much ribbon will make 18 bows.	If you have enough ribbon to make 18 bows and share the ribbon fairly among 3 kids, then each kid has enough ribbon to make 6 bows.	If each kid wants to make 6 bows and there's enough ribbon to make 18 bows, then 3 kids can make bows.

Core Standards · Students can and do:

a. Use representations (objects, pictures, story contexts) to describe and justify properties of multiplication and division.[29]
b. Solve simple multiplication and division word problems involving equal groups, length and area.
c. Solve up to two-step word problems involving the four operations with whole numbers and whole number quantities. (Whole number quotients only)
d. Solve multiplicative comparison problems with whole numbers (problems involving the notion of "times as much").
e. ♦ Draw a scaled bar graph to represent a data set with several categories. Solve "how many more"/"how many less" problems (two-step problems) using information presented in scaled bar graphs.[30]

Base Ten Computation

Core Standards · Students understand that:

1. Patterns in the multiplication table can be explained by the Properties of Arithmetic. For example, the distributive property explains why, for any row, the entries in the 7 column are the sums of the entries in the 5 and 2 columns.
2. The Properties of Arithmetic can be used to derive new multiplications and divisions from known ones.

Core Standards · Students can and do:

a. Explain strategies for multiplying and dividing that use the Properties of Arithmetic and properties of the base ten system.
b. Rapidly multiply and divide within 100.[31]
c. Produce full sets of fact families for multiplication and division, as in the set $6 \times 7 = 42$, $7 \times 6 = 42$, $42 = 7 \times 6$, $42 = 6 \times 7$, $42 \div 7 = 6$, $42 \div 6 = 7$, $6 = 42 \div 7$, $7 = 42 \div 6$.
d. Find the factor pairs for a given number, as in the factor pairs for the number 42: $\{42, 1\}$, $\{21, 2\}$, $\{14, 3\}$, $\{7, 6\}$.

Fractions

Core Standards · Students understand that:

1. When a whole, 1, is divided into b equal parts, the size of the parts is written $1/b$. To show $1/b$ of something, divide the thing into b equal parts.
2. For a whole number a and a positive whole number b, a/b is defined as a copies of $1/b$.[32] This can be thought of as the sum $1/b + 1/b + \ldots + 1/b$ (with a summands).
3. Whole numbers can be written as fractions, as in $b/b = 1$, $n/1 = n$, and cases such as $(4 \times 7)/4 = 7$.
4. Fractions are numbers and can be seen as lengths on a number line.[33]

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[29] Include properties such as that the product is the same when the order of the factors is changed; that multiplication problems involving 1-digit numbers can be solved by breaking one factor apart additively and multiplying each part by the other factor; and that multiplying a quantity by a number, then dividing by the same number, leaves the original quantity unchanged.

[30] Include single-unit scales and multiple-unit scales. For multiple-unit scales, all counts should be evenly divisible by the scale factor. No count should represent more than ten of the scale unit, and no scale unit should represent more than ten counts.
[31] A variety of mental strategies are acceptable, including derived fact strategies and producing products or quotients from memory.
[32] This includes fractions greater than 1. For example, $17/5$ is 17 copies of $1/5$.
[33] For example, $17/5$ is 17 copies of the subinterval $1/5$ laid end to end.

5. Two fractions are equal when they represent the same portion of a whole, or when they have the same length on a number line. One fraction is greater than another when it represents a greater portion of the whole than the other, or lies to the right of the other on the number line.

6. Given two unit fractions, the fraction with the larger denominator is smaller, because dividing a whole into a larger number of parts leads to smaller parts.

7. Fractions with the same denominator can be added or subtracted by adding or subtracting the units indicated by the unit fraction. For example, $2/3 + 4/3$ is 2 copies of $1/3$ plus 4 copies of $1/3$, or 6 copies of $1/3$ in all, that is $6/3$.

8. The decimal 0.1 denotes the fraction $1/10$, 0.2 denotes $2/10$, and so on through 0.9, which denotes $9/10$.

Core Standards · Students can and do:

a. Use fractions to describe quantities and parts of wholes.
b. Compare and order fractions with equal numerators or equal denominators, including in contextual situations, using the fractions themselves, bar strip drawings, number line representations, and area models.
c. Reason about fractions to establish equivalences between fractions with unlike denominators 2, 3, 4 and 6 (e.g. $1/2 = 2/4$, $4/6 = 2/3$).
d. Add and subtract fractions with like denominators.
e. Solve word problems that involve adding, subtracting, ordering and comparing fractions.
f. Represent fractions of the form $a/10$ in decimal notation; compare and order to tenths in decimal notation.

Quantity and Measurement

Core Standards · Students understand that:

1. A unit of measure can be partitioned into equal-sized parts, whose sizes can be represented as fractions of the unit.

2. The area of a closed plane figure is a measure of how much space it encloses. A square with side length 1 unit is said to enclose "one square unit" of area.

3. The area of a closed plane figure can be measured (expressed numerically) by the number of square units that fit inside it with no gaps or overlaps.

4. Area is a model for multiplication because tiling a rectangle with unit squares shows that a rectangle a units long by b units wide encloses an area of $a \times b$ square units.

Core Standards · Students can and do:

a. Measure lengths using rulers marked with halves and fourths of inches. Make a dot plot to show repeated measurements.
b. Convert compound units to a smaller or a larger unit, and solve problems involving mixed units (feet and inches, yards and feet).
c. Using customary units, demonstrate and justify correct processes for measuring, comparing, and estimating length, mass, capacity, and durations of time, including unit selection, partitioning and iterating units, and transitivity.
d. Compute perimeters of polygons by adding given side lengths, and find an unknown length in a polygon given the perimeter and all other side lengths. Represent these problems with equations involving a symbol for the unknown quantity.
e. Determine and compare areas by counting square units (improvised units, cm^2, m^2, in^2, ft^2).
f. Compute elapsed time and solve problems involving elapsed time (to the nearest minute).

Mathematics: Fourth Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Operations and the Problems They Solve

Core Standards · Students understand that:

1. Quantities in a problem might be described with whole numbers, fractions or decimals; the operations used to solve the problem depend on the relationships between the quantities whatever numbers are involved.
2. The distributive property (of multiplication over addition) relates addition and multiplication. The distributive property can be shown numerically and visually, using arrays and area models.

Core Standards · Students can and do:

a. Solve multistep word problems involving the four operations with whole numbers.[34]
b. Estimate answers to computations and compute mentally to assess reasonableness of results.
c. Solve problems that involve comparing, ordering, adding and subtracting fractions with like denominators. Compare fractions to benchmark fractions.
d. Solve problems that involve comparing and ordering decimal numbers to hundredths. Compare decimals to benchmark decimals.
e. ♦Make a table from given data, ask and answer questions about data in a table, solve multi-step problems using information presented in tables, and find patterns in tables.[35]

Fractions

Core Standards · Students understand that:

1. The fraction a/b can be written as $a \times 1/b$ because a/b is a copies of $1/b$.
2. When a identical things are divided into b equal parts, each of a things contributes $1/b$. So $a \div b = a/b$.[36]
3. A fraction can be multiplied by a whole number as $n \times a/b = n \times a/b$. For example, $3 \times 2/5$ can be seen as 3 groups of 2 unit fractions $1/5$.[37]
4. A decimal of two digits stands for a sum of fractions whose denominators are 10 and 100. For example, 0.34 stands for $3/10 + 4/100$.

Core Standards · Students can and do:

a. Reason about fractions to establish equivalences between related fractions[38] (e.g. $3/10 = 30/100$, $9/12 = 3/4$).

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[34] Use the properties of multiplication (commutative, associative, identity) or the inverse relationship between multiplication and division (multiplying a number by b then dividing by b, and vice versa, leaves the number unchanged) to make sense of single digit multiplication and division situations and solve problems.
[35] Include tables with data from proportional relationships.
[36] This definition agrees with previous understandings of division in cases like $28 \div 7$ (i.e., when a is a multiple of b), but also gives meaning to quotients such as $3 \div 4$ or $7 \div 2$.
[37] Using the Properties of Arithmetic, $n \times a/b = n \times (a \times 1/b) = (n \times a) \times 1/b = (n \times a)/b$.

b. Add and subtract related fractions in simple cases within one whole (e.g. $1/2 + 1/4$, $3/10 + 4/100$).
c. Solve word problems posed with whole numbers that have fractional answers.
d. Represent multiplication of whole numbers by fractions and fractions by whole numbers, using length and area models.
e. Solve word problems involving multiplying fractions by whole numbers and multiplying whole numbers by fractions.[39]
f. Use decimals to hundredths to describe quantities and parts of wholes, compare and order decimals to hundredths, and write fractions of the form $a/10$ or $a/100$ in decimal notation.
g. Round decimals (to hundredths) to the nearest whole number.
h. Solve addition and subtraction story problems involving fractions with related denominators (situations familiar from whole number work).

Base Ten Computation

Core Standards · Students understand that:

1. The product of a one-digit number times a multidigit number is the sum of the products of the one-digit number times each place value component. This is an instance of the distributive property.
2. Multi-digit multiplication algorithms can be derived and explained by decomposing numbers into their place value components and applying the distributive property.
3. Digits in each place are worth ten times as much as digits in the place to the right and a tenth as much as digits to the left; comparison of numbers is decided by the leftmost digit, with subsequent digits breaking ties.
4. Given whole numbers a and b, find whole numbers Q and R so that $a = Q \times b + R$. For example, given 325 and 7, express 325 in the form $325 = 46 \times 7 + 3$.

Core Standards · Students can and do:

a. Demonstrate place value understanding for whole numbers to 1,000,000 and compare numbers within this range.
b. Round whole numbers to the nearest 10 or 100 and use rounding to estimate computations.
c. Multiply single place numbers (to 9000) by single digit numbers.[40]
d. Multiply two-, three- and four-digit numbers by single-digit whole numbers, and multiply two-digit numbers by two-digit numbers, using strategies based on place value, Properties of Arithmetic, or the inverse relationship between multiplication and division.
e. Multiply two-digit numbers by two-digit numbers using an algorithm based on place value and regrouping, such as the standard algorithm.
f. Divide two-, three- and four-digit numbers by single-digit numbers, with or without remainder. In the case of remainders, express results in the form of an equation, as in $325 = 46 \times 7 + 3$.
g. Explain why multiplication and division strategies and algorithms work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

Quantity and Measurement

Core Standards · Students understand that:

[38] Glossary: Related fractions. Two fractions are *related* if one denominator is a factor of the other. (See Ginsburg, Leinwand and Decker (2009), *Informing Grades 1-6 Mathematics Standards Development: What Can Be Learned from High-Performing Hong Kong, Korea, and Singapore?*, Table A1, p. A-5, grades 3 and 4.)
[39] Include sharing multiple continuous wholes a fairly among b people, naming an individual share as a/b. For example 5 meters of pink ribbon shared among 3 people results in $5/3$ meters each.
[40] Glossary: Single-place number. The numbers that result when a whole number between 1 and 9 (inclusive) is multiplied by the numbers 10, 100, 1000, etc.

1. Area is additive: If a figure is decomposed into several pieces, then the area of the whole figure can be found by adding the areas of the pieces (expressed in common units).
2. An angle is two rays with a common endpoint, and is measured by the relative amount of a circle that you trace when turning from one ray to the other.
3. A one-degree angle turns through 1/360 of a circle, where the circle is centered at the origin of the rays; the measure of an angle is the number of one-degree angle turned with no gaps or overlaps.

Core Standards · Students can and do:

a. Apply the formula for area of squares and rectangles. Measure and compute whole-square-unit areas of objects and geometric figures decomposable into rectangles.[41]
b. ♦ Make a dot plot to show repeated measurements in common fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in dot plots (e.g., finding the difference in length between the longest and shortest specimens in an insect collection).
c. Draw scales (number line representations) of problem situations involving length, height and distance including fractional units or decimal numbers.
d. Find one dimension of a rectangle given the other dimension and its area or perimeter; find the length of one side of a square given its area or perimeter. Represent these problems with equations involving a symbol for the unknown quantity.
e. Measure angles in whole-number degrees using a protractor; sketch angles of specified measure. Find the measure of a missing part of an angle, given the measure of the angle and the measure of a part of it; represent these problems with equations involving a symbol for the unknown quantity.

Shapes

Core Standards · Students understand that:

1. Shapes can be analyzed and classified using concepts of parallelism, perpendicularity and angle measure.

Core Standards · Students can and do:

a. Draw points, lines, line segments, rays and angles; identify these in geometric figures.
b. Associate angles of a quarter turn (subtending ¼ of a circle) with angle measure 90°, a half turn (½ of a circle) with angle measure 180°, ¾ turn (¾ of a circle) with angle measure 270°, and a full turn (complete circle) with angle measure 360°.[42]
c. Draw perpendicular and parallel lines; identify these in geometric figures.
d. Identify right angles and angles smaller than/greater than a right angle in geometric figures; recognize right triangles.
e. Given a quadrilateral, say whether it is a square, whether it is a rectangle, and whether it is a parallelogram (with an understanding that a given shape may fit more than one category).

[41] using one-digit or two-digit numbers times two-digit numbers
[42] From Singapore Primary 4

Mathematics: Fifth Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Fractions

Core Standards · Students understand that:

1. Fractions a/b and $(n \times a)/(n \times b)$ are equal: for $1/b$ is n copies of $1/(n \times b)$, so a/b is $n \times a$ copies of $1/(n \times b)$. Example: $1/3$ is 4 copies of $1/12$, so $2/3$ is 8 copies of $1/12$; thus $2/3 = 8/12$.
2. Fractions can be added or subtracted by replacing each with an equal fraction so that the resulting fractions have the same denominator. Example: $2/3 + 5/4 = 8/12 + 15/12 = 23/12$.
3. Multiplying unit fractions gives a new unit fraction with denominator equal to the product of the initial denominators. For example, $1/3 \times 1/2 = 1/(3 \times 2)$. The product $1/3 \times 1/2$ is 1 part when a whole of size $1/2$ is divided into 3 parts, i.e. it is "$1/3$ of $1/2$."[43]
4. Multiplying unit fractions can be extended to multiplying fractions in general. For example, $2/3 \times 4/5$ can be seen as 2 groups of 4 unit fractions $1/15$, hence the product is $8/15$.[44] The product $2/3 \times 4/5$ is 2 parts when a whole of size $4/5$ is divided into 3 parts, i.e. it is "$2/3$ of $4/5$."[45]
5. Dividing a unit fraction $1/b$ by a whole number n gives a unit fraction with denominator $n \times b$, because when $1/b$ is divided into n equal parts, the size of each part is $1/(n \times b)$. For example, $1/3 \div 2 = 1/6$.
6. Dividing a whole number n by a unit fraction $1/b$ gives a whole number $n \times b$, because, as there are b units of $1/b$ in 1, there are $n \times b$ units of $1/b$ in n. For example, $2 \div 1/3 = 6$.
7. A mixed number stands for the sum of its whole number part and a fractional part less than 1. A mixed number can be written as a fraction greater than 1, such as $17/5$. This equivalence can be shown using area, length, and number line models.
8. The ratio of two whole number quantities a and b, written $a{:}b$ or a/b, is a multiplicative comparison telling how much of one quantity there is for a given amount of the other, or how many times as much one is than the other.[46]

Core Standards · Students can and do:

a. Use area models and length models (such as strip drawings or the number line) to represent multiplication of fractions, division of unit fractions by whole numbers, and division of whole numbers by unit fractions.
b. Multiply fractions, divide unit fractions by whole numbers, and divide whole numbers by unit fractions, and solve word problems involving these operations.
c. Divide whole numbers by single digit decimals by seeing that they are fractions with denominator 10 or 100.
d. Rename fractions and mixed numbers to equivalent forms and identify equivalent fractions.
e. Compare and order fractions and mixed numbers with like or unlike denominators, including in contextual situations, using the fractions themselves, strip drawings or number line representations, and area models. Describe the size of fractional quantities with reference to the problem situation.
f. Make tables of equal ratios relating whole number quantities, and find missing values in the tables. Plot pairs of values on the coordinate plane. Example

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[43] On the number line, $1/n \times 1/d$ is 1 part when the interval from 0 to $1/d$ is divided into n parts. This is the same as 1 part when the interval from 0 to 1 is divided into $n \times d$ parts, and thus $1/n \times 1/d = 1/n \times d$.

[44] Using the Properties of Arithmetic, $2/3 \times 4/5 = (2 \times 1/3) \times (4 \times 1/5) = (2 \times 4) \times (1/3 \times 1/5) = (2 \times 4) \times 1/3 \times 5 = 2 \times 4/3 \times 5$.

[45] On a number line, $m/n \times c/d$ means m parts when the interval from 0 to c/d is divided into n parts.

[46] For example, in a mixture of 5 cups of flour and 2 cups of sugar, the ratio is 5 cups flour to 2 cups sugar. There is $5/2$ times as much flour as sugar (equivalently, $2\ 1/2$ times as much or 2.5 times as much).

Cups of Flour	5	10	?	20
Cups of Sugar	2	?	6	8
Flour:Sugar (fraction form)	5/2	10/4	?	20/8
Flour:Sugar (decimal form)	?	?	?	?

Hours of Snowfall	5	10	?	20
Inches of Snow	2	?	6	8
Inches:Hours (fraction form)	2/5	4/10	?	8/20
Inches:Hours (decimal form)	?	?	?	?

Base Ten Computation

Core Standards · Students understand that:

1. The standard division algorithm is based on successively finding the largest single digit multiple of the divisor that is less than the dividend, regrouping to the next lower unit if necessary, and then subtracting the multiple and repeating to find the next digit in the quotient.
2. The division algorithm can be used to express a fraction in decimal form by carrying the division into the decimal places.
3. The features of the place value system for whole numbers extend to the decimal positions and the combined system is symmetric around the ones place.
4. In adding or subtracting decimal numbers, one operates separately with the units of each size, except when regrouping is needed; the scheme for regrouping is the same at each place, because each unit is composed of ten of the next smaller unit.
5. Numbers in decimal notation can be shown on the number line by dividing and sub-dividing the unit intervals as many times as needed to locate the number. This process can be visualized as zooming in on the number line.

Core Standards · Students can and do:

a. Divide two, three and four digit numbers by two digit numbers, with remainder, using an algorithm based on place value and regrouping, such as the standard algorithm. In the case of remainders, express results in the form of an equation, as in $145 = 11 \times 13 + 2$.
b. Understand very large and very small numbers (from millionths to hundreds of millions); round very large numbers.
c. Quickly find 0.1 more than a number and less than a number; 0.01 more than a number and less than a number; and 0.001 more than a number and less than a number.
d. Add and subtract decimals using an algorithm based on place value and regrouping, such as the standard algorithm, and solve problems involving these operations.
e. Write fractions in decimal notation for denominators 2, 3, 4, 5, 6, 8, 10 and 100.
f. Explain why strategies and algorithms for decimals work, using place value and the Properties of Arithmetic (including explanations supported by drawings or objects).

Quantity and Measurement

Core Standards · Students understand that:

1. The volume of a solid figure is a measure of how much space it encloses. A cube with side length 1 unit is said to contain "one cubic unit" of volume. The volume of a solid figure can be measured (expressed numerically) by the number of cubic units that fit inside it with no gaps or overlaps.
2. Packing a rectangular prism with unit cubes and decomposing the prism into layers shows that a rectangular prism ℓ units long by w units wide by h units tall contains a volume $V = \ell \times w \times h$ cubic units. The base of the

prism has area $A = \ell \times w$ square units, and the prism can be viewed as h layers, each containing $\ell \times w$ cubic units,

so the volume of the prism can also be expressed as $V = A \times h$ cubic units.

3. Volume is additive: If a solid figure is decomposed into several pieces, then the volume of the whole figure can be found by adding the volumes of the pieces (expressed in common units).
4. Quantities with like units can be added or subtracted giving a sum or difference with the same unit; quantities with unlike units can be multiplied or divided giving products or quotients with derived units.
5. The ratio of a length, area or amount to another length, area or amount is the same regardless of the size of the unit used for measurement.
6. The number line is a scale that can be used to show units such as pounds, liters, etc.

Core Standards · Students can and do:

a. Measure and compute whole-cubic-unit volumes for rectangular prisms and for objects well described as rectangular prisms.
b. Convert among different-sized standard measurement units within a given measurement system (e.g. feet to yards, centimeters to meters) and use conversion to solve story problems.
c. Form ratios of lengths, areas, and other quantities, including when quantities being compared are measured in different units.
d. Solve word problems involving addition, subtraction, multiplication and/or division using quantities expressed as whole numbers, fractions, or decimals with measurement units.
e. Solve multi-step problems involving units of weight, capacity, money, volume and area.

Coordinate Geometry

Core Standards · Students understand that:

1. A pair of perpendicular number lines ("axes") defines a coordinate system. A given point in the plane has a separate position along each of the two axes; the two positions of the point are called its coordinates.
2. Graphs on coordinate axes can be used to make sense of relationships among quantities in complex problems.

Core Standards · Students can and do:

a. Graph points in the first quadrant the coordinate plane, and read off the coordinates of graphed points.[47]
b. Determine the lengths of horizontal and vertical segments in the plane, given the coordinates of their endpoints.
c. ♦ Collect data on continuous covarying quantities and display the data in a line graph with broken lines; distinguish bar graphs from line graphs; ask and answer questions from line graphs, including comparisons of ratios.

Statistics

Core Standards · Students understand that:

[47] The axes should sometimes represent dimensioned quantities, and the units of measure should not always be the same for both axes. Coordinates may be whole numbers, fractions or decimals.

1. Data are collected purposefully to answer a predefined question (e.g., "How tall are the fifth graders in our school?")
2. A set of data typically shows variability—not all of the values are the same—and yet the values also typically show some tendency to cluster. Identifying a "center" for a data set is a way to describe its many values using a single number.
3. The median is a measure of center in the sense that approximately half the data values are less than median, while approximately half are greater.
4. Variation in a data set can be measured by the range and by typical deviations from the center.

Core Standards · Students can and do:

a. Collect data to answer a predefined question about a measurement quantity. Make a dot plot to display the data, and describe the data using the median and typical deviations from the it.

Mathematics: Sixth Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Ratios and Proportional Relationships

Core Standards · Students understand that:

1. Multiplicative comparisons can be extended from whole numbers to fractions and decimals. When the ratio q/m is formed, or when q is r times as much as m, the numbers q, r and m can be fractions or decimals.
2. p% of a quantity means $p/100$ times as much as the quantity. The number p can be a fraction or decimal, as in 3.75%.
3. A unit rate is the multiplicative factor relating the two quantities in a ratio. Two quantities q and m can be compared by $q = r \times m$, where the unit rate r tells how much q per m.
4. Given two quantities in a ratio (e.g. distance and time), finding the unit rate produces a new type of quantity (e.g. speed).

Core Standards · Students can and do:

a. Solve for an unknown quantity in a problem involving two equal ratios.
b. Find a percentage of a quantity; solve problems involving finding the whole given a part and the percentage.
c. Solve unit rate problems including unit pricing and constant speed. (See table.)

$D = s \times T$	$D \div T = s$	$D \div s = T$
A car driving at a speed of 30 miles per hour for 6 hours travels a distance of 180 miles.	If a car drives 180 miles for 6 hours at a constant speed, that speed is 30 miles per hour.	When a car drives 180 miles at a speed of 30 miles per hour, the trip takes 6 hours.

d. Represent unit rate problems on a coordinate plane where each axis represents one of the two quantities involved, and find unit rates from a graph. Explain what a point (x, y) means in terms of the situation, with special attention to the points (0, 0) and $(1, r)$ where r is the unit rate.

The Number System

Core Standards · Students understand that:

1. The Properties of Arithmetic govern operations on all numbers.
2. Division of fractions follows the "invert and multiply" rule because multiplication and division are inverse operations. For example, $(2/3) \div (5/7) = 14/15$ because $(14/15) \times (5/7) = 2/3$.
3. Every nonzero fraction has a unique multiplicative inverse,[48] namely its reciprocal. Division can be defined as "multiplying by the multiplicative inverse." Then $(2/3) \div (5/7) = 14/15$ because the division symbol indicates multiplication by the multiplicative inverse.
4. A two-sided number line can be created by reflecting the fractions across zero. Numbers located to the left of zero on the number line are called negative numbers and are labeled with a negative sign.

[48] Glossary: Multiplicative inverses. Two numbers whose product is 1 are multiplicative inverses of one another. Example: $3/4$ and $4/3$ are multiplicative inverses of one another because $3/4 \times 4/3 = 4/3 \times 3/4 = 1$.

5. Two different numbers, such as 7 and –7, that are equidistant from zero are said to be opposites of one another. The opposite of 7 is –7 and the opposite of –7 is 7. The opposite of the opposite of a number is the number itself. The opposite of 0 is 0. The operation of attaching a negative sign to a number can be interpreted as reflecting the number across zero on the number line.
6. The absolute value of a number is its distance from zero on the number line. For any positive number q, there are two numbers whose absolute value is q, namely q and $-q$.
7. The absolute value of a signed quantity (e.g. account balance, elevation) tells the size of the quantity irrespective of its sense (debit or credit; above or below sea level).
8. Comparison of numbers can be extended to the full number system. The statement $p > q$ means that p is located to the right of q on the number line, while $p < q$ means that p is located to the left of q on the number line. The statement $p > q$ does not mean $|p| > |q|$.

Core Standards · Students can and do:

a. Divide fractions, and divide finite decimals by expressing them as fractions.
b. Solve problems requiring arithmetic with fractions presented in various forms, converting between forms as appropriate and estimating to check reasonableness of answers.
c. Find and position rational numbers[49] on the number line.
d. Use rational numbers to describe quantities such as elevation, temperature,[50] account balance and so on. Compare these quantities using > and < symbols and also in terms of absolute value.
e. Graph points and identify coordinates of points on the Cartesian coordinate plane in all four quadrants.

Statistics

Core Standards · Students understand that:

1. The mean is a measure of center in the sense that it is the balance point; the mean is the value each data point would take on if the total value of all the data points were redistributed fairly.
2. When the mean and median of a data set differ substantially, both measures should be provided, and the difference explained in terms of the data values.

Core Standards · Students can and do:

a. Collect data to answer a predefined question about a measurement quantity. Make a dot plot to display the data, and describe the data using measures of center and measures of variation.[51]

Geometry

Core Standards · Students understand that:

1. Triangles and parallelograms can be dissected and reassembled into rectangles with the same area; this leads to a formula for area in terms of base and height.
2. Polygons can be dissected into triangles in order to find their area.

Core Standards · Students can and do:

[49] Glossary: Rational number. A number expressible in the form a/b for integers a and $b \neq 0$. The rational numbers include positive and negative integers, positive and negative fractions, and 0.
[50] A caution for temperature problems: The rational numbers are not a good model for a temperature scale. There is no temperature that solves the equation $T + 1000°C = 0$.
[51] Data sets should include fractional values at this grade but not negative values.

a. Find the area of right triangles, other triangles, special quadrilaterals, and polygons (by dissection into triangles and other shapes).
b. Find surface area of cubes, prisms and pyramids (include the use of nets to represent these figures).
c. Solve problems involving area, volume and surface area of objects.
d. Examine the relationship between volume and surface area. Exhibit rectangular prisms with the same surface area and different volume, and with the same volume and different surface area.
e. Use exponents and symbols for square roots and cube roots to express the area of a square and volume of a cube in terms of the side length, and to express the side length in terms of the area or volume.

Expressions and Equations

Core Standards · Students understand that:

1. A number that is the result of a sequence of operations with other numbers can be expressed in different ways using conventions about order of operations and parentheses, rules for working with fractions, and the Properties of Arithmetic. All such expressions are equivalent.
2. A letter is used to stand for a number in an expression in cases where one doesn't know what the number is, or where, for the purpose at hand, it can be any number in the domain of interest. Such a letter is called a variable.
3. An equation is a statement that two expressions are equal, and a solution to an equation is a value of the variable (or a set of values for each variable if there is more than one variable) that makes the equation true.

Core Standards · Students can and do:

a. Represent an unknown number using a letter in simple expressions such as $y + 2$, $y - 3$, $6 + y$, $5 - y$, $3y$, $y/2$, and $(3 \pm y)/5$.
b. Interpret $3y$ as $y + y + y$ or $3 \times y$, $y/2$ as $y \div 2$ or $1/2 \times y$, $(3 \pm y)/5$ as $(3 \pm y) \div 5$ or $1/5 \times (3 \pm y)$.[52]
c. Evaluate simple expressions when values for the variables in them are specified (exclude expressions with a variable in denominator).
d. Choose variables to represent quantities in a word problem and construct simple equations to solve the problem by reasoning about the quantities.
e. Solve equations of the form $x + p = q$ (for $p < q$) and $px = q$ where p and q are fractions.

[52] From Singapore Secondary 1

Mathematics: Seventh Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Ratios and Proportional Relationships

Core Standards · Students understand that:

1. Two variable quantities x and y are said to be proportional to one another if the ratio x/y is always equal to the same quantity k, so that $y = kx$. The constant k is the unit rate, and tells how much of y per unit of x.

Core Standards · Students can and do:

a. Compare proportional relationships represented in different ways (e.g. compare a graph to an equation to determine which of two objects has greater speed).
b. Decide whether two quantities that vary together have a proportional relationship, analyze proportional relationships using the unit rates that characterize them, and solve word problems involving proportional relationships.
c. Plot pairs (x, y) from a proportional relationship $y = kx$, and pass a straight line through them and the origin. Observe that increases in y are proportional to increases in x, and calculate [increase in y]/[increase in x] = k.

The Number System

Core Standards · Students understand that:

1. On the number line, the sum $p + q$ is defined to be the number lying distance $|q|$ from p, to the right of p if q is positive and to the left of p if q is negative. A number and its opposite are additive inverses (add to zero).[53]
2. Sums of signed numbers can be computed using the Properties of Arithmetic.[54]
3. The additive inverse of a sum is the sum of the additive inverses.[55]
4. Subtraction is defined as adding the additive inverse. This definition of subtraction allows subtraction of rational numbers and agrees with previous understandings of subtraction with positive numbers.[56] On the number line, the difference $p - q$ lies distance $|q|$ from p, to the left of p if q is positive and to the right of p if q is negative.
5. The absolute value of $p - q$ equals the distance between p and q on the number line.
6. Products of signed numbers can be computed using the Properties of Arithmetic.[57] In particular, multiplying a number by -1 produces its additive inverse.[58]

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[53] Glossary: Additive inverses. Two numbers whose sum is 0 are additive inverses of one another. Example: $^3/4$ and $-^3/4$ are additive inverses of one another because $^3/4 + (-^3/4) = (-^3/4) + {}^3/4 = 0$.

[54] For example, $7 + (-3) = 4$ because $7 + (-3) = (4 + 3) + (-3) = 4 + [3 + (-3)] = 4 + [0] = 4$. And $(-2) + (-3) = -5$ because $5 + [(-2) + (-3)] = (2 + 3) + [(-2) + (-3)] = [2 + (-2)] + [3 + (-3)] = [0] + [0] = 0$ so $(-2) + (-3)$ is the additive inverse of 5, that is -5.

[55] For example, $-(6 + -2) = (-6) + 2$ because $[6 + (-2)] + [(-6) + 2] = [6 + (-6)] + [(-2) + 2] = [0] + [0] = 0$.

[56] For example, the subtraction $7 - 3$ means 7 plus the additive inverse of 3, i.e. $7 + (-3)$, which equals 4. The subtraction $9 - (-4)$ means 9 plus the additive inverse of -4, i.e. $9 + 4$, which equals 13.

[57] For example, $(-1) \times (-1) = 1$ because $(-1) + (-1) \times (-1) = 1 \times (-1) + (-1) \times (-1) = [1 + (-1)] \times (-1) = 0 \times (-1) = 0$.

[58] Because $(-1) \times a + a = (-1) \times a + (1) \times a = [(-1) + (1)] \times a = 0 \times a = 0$.

7. Every nonzero rational number has a multiplicative inverse. Division of rational numbers is defined as multiplying by the multiplicative inverse.
8. The operation of adding the rational number q to points on the number line is a translation; it shifts points to the right if $q > 0$, to the left if $q < 0$, and not at all if $q = 0$. The operation of adding $-q$ undoes the operation of adding q.
9. The operation of multiplying points on the number line by a positive rational number k is a dilation; it scales points further away from zero if $k > 1$, closer to zero if $k < 1$, and not at all if $k = 1$. The operation of multiplying by $1/k$ undoes the operation of multiplying by k.

Core Standards · Students can and do:

a. Explore and explain with number lines the rules for adding rational numbers, e.g., $r + s = s + r$; $r + (-s) = r - s$; $p - (q + r) = p - q - r$.
b. Use the rules of arithmetic to explore and explain with specific numbers the rules for multiplying rational numbers, e.g., 4×-5 is -5 added to itself 4 times, so equal to -20; $-3 \times (-2 + 2) = -3 \times 0 = 0$, so $-3 \times -2 = -(-3)\times 2 = -(-6) = 6$.
c. Add and subtract rational numbers, and use these operations to solve word problems (including signed quantities such as elevation, temperature, account balance, and so on).
d. Multiply and divide rational numbers, and use these operations to solve word problems (including signed quantities).

Expressions and Equations

Core Standards · Students understand that:

1. Expressing a quantity in different forms serves a purpose in analyzing quantitative situations.
2. The distributive property can be used in two directions, both to expand linear expressions, and to factor a sum of terms with a common factor.

Core Standards · Students can and do:

a. Construct algebraic expressions for simple real-world situations and generate equivalent expressions to interpret their meaning (e.g., $P + 0.05P = 1.05P$ means that "increase by 5%" is the same as "multiply by 1.05").
b. Generate equivalent expressions from a given expression, including putting linear expressions in standard form and taking out a common factor. Include expressions involving negative numbers and exponents 2 and 3.
c. Solve multi-step word problems that lead to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are rational numbers, by undoing the operations involved in producing the expression on the left, using additive and multiplicative inverses.
d. Solve simple absolute value equations of the form $|x + h| = j$ and $|x - h| = j$, where h and j are integers.
e. Read the structure in a numerical expression at a level necessary to enter it into a calculator or spreadsheet, making use of parentheses and the conventions on order of operations.

Statistics

Core Standards · Students understand that:

1. In addition to measurement variability, another source of variation in data is randomness.

Core Standards · Students can and do:

a. Collect experimental or simulation data from repeated random trials. Make a histogram showing absolute frequencies and a bar graph of relative frequencies. Discuss the patterns and make predictions for further experiments or simulations.

Probability

Core Standards · Students understand that:

1. Chance events fall along a spectrum: nearly impossible | unlikely | neither likely nor unlikely | likely | nearly certain.
2. Probability is a quantitative measure of likelihood. Probabilities are numbers lying between 0 and 1, with 0 representing impossible and 1 representing certain (in the case of a finite sample space).
3. The experimental probability of a specified outcome is the observed fraction of the outcome in a data set collected from a process involving randomness or chance.
4. In a random process, the individual outcomes are unpredictable, but patterns may emerge after repeated trials. Experimental probabilities in random experiments tend to approach stable values as more and more data is generated.
5. In a theoretical probability model, the set of distinct possible outcomes for a random experiment is called the sample space. An event is a set of sample points; a sample point may belong to several events. A specified event occurs in some fraction of the sample space. This fraction is called the theoretical probability of the event.
6. When computing theoretical probabilities, all members of the sample space are assumed equally probable. Theoretical probabilities will not match long-run experimental probabilities if this assumption is inappropriate (e.g., as in the case of a loaded die).

Core Standards · Students can and do:

a. Compute experimental probabilities from data sets, including data sets generated by simulations or sampling experiments.
b. Compute experimental probabilities to estimate theoretical probabilities when no theoretical probability model is apparent.
c. Represent sample spaces for one-stage random experiments; identify members of the sample space in which specified events occur.
d. Use a theoretical probability model to compute theoretical probabilities for one-stage random experiments, expressing theoretical probabilities as fractions, decimals and percents.
e. Compare experimental probabilities to theoretical probabilities for one-stage random experiments, examining and if feasible revising the assumptions of the theoretical model when the two conflict.

Geometry

Core Standards · Students understand that:

1. Two polygons are congruent[59] if and only if there is a correspondence between vertices so that the corresponding sides are equal and the corresponding angles are equal.
2. A plane or solid figure is similar to another if the second can be obtained from the first by a similarity transformation.[60] All ratios of lengths in the second figure to corresponding lengths in the first figure are equal to the scale factor of the dilation.

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[59] Glossary: Congruent. Two plane or solid figures are *congruent* if one can be obtained from the other by a sequence of rigid motions (rotations, reflections, and translations).
[60] Glossary: Similarity transformation. A rigid motion followed by a dilation. Glossary: Dilation. A transformation that moves each point along the ray through the point emanating from a fixed center, and multiplies distances from the center by a common scale factor.

3. Congruent figures have the same area or volume. A similarity transformation with a scale factor of k leaves angle measures unchanged, changes lengths by a factor of k, changes areas by a factor of k^2, and changes volumes by a factor of k^3.

4. Given a line in the coordinate plane not parallel to either axis, any two right triangles with legs parallel to the axes and hypotenuse on the given line are similar, and so the slope of the line (rise over run) is the same regardless of which two distinct points are used to compute it.

Core Standards· Students can & do:

a. Solve problems involving similar triangles and scale drawings (including computing actual lengths, areas and volumes from a scale drawing and reproducing a scale drawing at a different scale).
b. Explore using hands-on activities the area of non-rectangular figures and the perimeter of curvilinear figures, and the fact that a dilation of the plane changes areas by the square of the scale factor.[61]
c. Use scale factors to find lengths and areas of similar figures, including an informal derivation of the formulas relating the area, radius and circumference of a circle.
d. Give an explanation of why the volume of a cylinder is the area of the base times the height, using informal arguments involving slices.
e. Use coordinate grids to transform figures and to predict the effect of dilations, translations, rotations and reflections.
f. Use two-dimensional representations of three-dimensional objects (schematics, assembly instructions, perspective drawings and multiple views) to solve problems.
g. Explore three-dimensional figures formed by translations and rotations of plane figures through space.
h. Sketch and describe cross-sections of cones, cylinders, pyramids and prisms.

[61] Include using grids of squares with fractional side lengths to estimate area, and measuring the length of strings wrapped around the perimter.

Mathematics: Eighth Grade

Developing Coherent Understanding

[Temporarily removed for editing.]

Functions and the Situations They Model

Core Standards · Students understand that:

1. A function is a rule, often defined by an expression, that states a relationship between the values of two variable quantities.
2. A linear function models a situation where the change in one quantity is proportional to the corresponding change in the other quantity. The constant of proportionality, m, is the rate of change of the function. If x is the input and y is the output then the function is defined by $y = mx + b$ for some constant b, which is called the initial value of the function (the value of the function when x is 0).
3. The graph of a linear function $y = mx + b$ is a straight line, and the slope of the line is the function's rate of change.
4. The problem of finding where two linear functions have the same output value for a common input value leads to an equation in one variable; the solution or solutions (if any) can be visualized as the input value(s) where the graphs of the functions intersect.
5. A linear equation in one variable can be solved by successively transforming it into simpler equations with the same solutions using the Properties of Arithmetic and the Properties of Equality, until an equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).

Core Standards · Students can and do:

a. Compare features of two or more functions that may be presented in different representations (as formulas, graphs, tables of values, or verbally).
b. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship; from two (x, y) values (including reading these from a table); or from a graph.
c. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
d. Solve linear equations with rational number coefficients, including equations that require expanding expressions using the distributive law and collecting like terms.

The Number System

Core Standards · Students understand that:

1. The number line has numbers that are not rational, such as 2π or $2 + \sqrt{3}$, called irrational numbers.
2. An irrational number can be approximated to arbitrary precision by rational numbers.
3. If $n > 0$ is an integer and $\sqrt{n}$ is not an integer, then $\sqrt{n}$ is irrational. If q is rational and r is irrational, then $q + r$ is irrational, and so is qr provided $q \neq 0$.

Core Standards · Students can and do:

a. Use rational approximations to compare the size of irrational numbers, locate them approximately on a number line and estimate the value of expressions (e.g. π^2).

Geometry

Core Standards · Students understand that:

1. Angle measures formed by a configuration of lines in a plane can often be deduced from other angle measures (e.g., vertically opposite angles, angles produced when a transversal line cuts two parallel lines).
2. The side lengths of a right triangle are related by the Pythagorean theorem.

Core Standards · Students can and do:

a. Explore and explain by hands-on activities facts about the angle sum of triangles, exterior angles, and alternate interior angles of parallel lines. Use these facts to determine the angle sum of interior angles of convex polygons, and the angle sum of exterior angles of convex polygons.[62]
b. Explore and explain using hands-on activities: parallel lines in space, line perpendicular to a line through a given point, lines perpendicular to a plane, lines parallel to a plane, the plane passing through three given points, and the plane perpendicular to a given line at a given point.
c. Use facts about angles to write and solve simple equations for an unknown angle in a figure.
d. Explain a proof of the Pythagorean theorem.[63]
e. Use the Pythagorean theorem to determine missing side lengths in right triangles and to solve problems in two and three dimensions.
f. Use the Pythagorean theorem to find the distance between two points in a coordinate system.
g. Draw (freehand, with ruler and protractor, and with technology) geometric shapes from given conditions. (Focus on constructing triangles from three measures of angles or sides, noticing when the triangle is uniquely defined, ambiguous, or impossible.)
h. Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc): copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.
i. Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

Statistics

Core Standards · Students understand that:

1. Scatterplots for bivariate continuous data may reveal patterns of association between two quantities. This kind of relationship between quantities is not a functional relationship—and yet, a function might be a valuable way to describe a statistical relationship.

Core Standards · Students can and do:

a. Construct and interpret scatterplots for bivariate measurement data.
b. Describe patterns that appear in scatterplots, such as clustering, outliers, positive/negative association, linear association, nonlinear association.
c. For scatterplots that suggest a linear association, model the relationship with a linear function using an informal fitting procedure. Use the model function to solve problems in the context of the data,

[62] Use physical models, transparencies, or dynamic geometry software to make rigid motions and give informal arguments, for example, arrange three copies of the same triangle so that the three angles form a line, and give an argument in terms of transversals why this is so.
[63] For example, by the method of right triangles in a square.

interpreting the slope/rate of change and intercept/initial value. Informally assess the goodness of the model by judging the closeness of the data points to the graph of the function.

Probability

Core Standards · Students understand that:

1. The framework for theoretical probability models is the same for compound events as for simple events: the theoretical probability is the fraction of the sample space in which the compound event occurs.

Core Standards · Students can and do:

a. Compute experimental probabilities from data sets, including data sets generated by simulations or repeated sampling experiments.
b. Compute experimental probabilities to estimate theoretical probabilities of compound events when no theoretical probability model is apparent.
c. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams; identify members of the sample space in which specified events occur.
d. Compute theoretical probabilities for compound events by counting members of the sample space.
e. Compare experimental probabilities to theoretical probabilities for multi-stage random experiments, examining the assumptions of the theoretical model when the two conflict.

Mathematics: High School—Expressions

A Coherent Understanding of Expressions

[Final draft of CCR narrative goes here.]

Seeing structure in expressions

Core Standards · Students understand that:

1. Different forms of expression for functions reveal different properties of the function; a purpose in transforming expressions is to find those properties.

   For example, factoring a quadratic expression reveals the zeros of the function it defines, and putting the expression in vertex form reveals the maximum or minimum of the function; the expression 1.15^t can be rewritten in the form $(1.15^{1/12})^{12t} \approx 1.012^{12t}$ to reveal the approximate monthly interest rate if the annual rate is 15%.

2. The laws of exponents for whole number exponents follow from an understanding of exponents as indicating repeated multiplication, and from the associative property of multiplication.

3. The interpretation of zero, fractional and negative exponents follows from extending the laws of exponents to those values.

   For example, since $(x^{1/3})^3 = x^{(1/3)\cdot 3} = x^1 = x$, $x^{1/3}$ is the cube root of x.

4. Complex expressions can be interpreted by "chunking": temporarily viewing a part of the expression as a single entity.

Core Standards · Students can and do:

a. Factor, expand, and complete the square in quadratic expressions.

b. Use chunking to see expressions in different ways that suggest ways of rewriting them.

   For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.

c. Rewrite expressions using the laws of exponents.

   For example $(x^{1/2})^3 = x^{3/2}$ and $1/x = x^{-1}$.

d. Use the laws of exponents to interpret expressions for exponential functions, recognizing fractional exponents as indicating roots of the base and negative exponents as indicating the reciprocal of a power.

   For example, identify the relative rate of change in functions such as $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.2)^{10t}$, $y = (1.01)^{t/12}$, and recognize that any non-zero number raised to the 0 power is 1 (for example, $12(1.05)^0 = 12$). Avoid common errors such as confusing as $6(1.05)^t$ with $(6\cdot 1.05)^t$ and $5(0.03)^t$ with $5(1.03)^t$.

e. Given an expression for an exponential function, identify whether it represents exponential growth or decay.

f. Using a method such as the factorization $(x^n - 1) = (x-1)(x^{n-1} + \ldots + 1)$ where n is a whole number, prove the formula for the sum of a geometric series, and use the formula to solve problems.

   Include problems involving compound interest and mortgage payments.

The arithmetic of polynomials and rational functions

Core Standards · Students understand that:

1. Polynomials form a system analogous to the integers, closed under the operations of addition, subtraction, and multiplication.

2. A polynomial of degree n has n complex roots, where roots are counted according to multiplicity.
3. For a polynomial $p(x)$, $p(a) = 0$ if and only if $(x - a)$ is a factor of $p(x)$.
4. The Binomial Theorem gives the expansion of $(x + a)^n$ in powers of x for a whole number n and a real number a, with coefficients determined for example by Pascal's triangle. The Binomial Theorem can be proved by mathematical induction.
5. Rational functions are fractions whose numerator and denominator are polynomials, and the rational functions are closed under the operation of division by a nonzero rational function.

Core Standards · Students can and do:

a. Add, subtract and multiply polynomials.
b. Identify zeros of polynomials when suitable factorizations are available, and graph polynomials.
c. Transform simple rational functions using the Properties of Arithmetic and the rules for operations on fractions.
d. Identify zeros and asymptotes of rational functions, when suitable factorizations are available, and graph rational functions.
e. Divide polynomials by monomials

Mathematics: High School—Equations

A Coherent Understanding of Equations

[Final draft of CCR narrative goes here.]

Building equations to model relations between quantities

Core Standards · Students understand that:

1. Choosing a unit for a general quantity (e.g. length) establishes a correspondence between specific instances of the quantity (e.g. lengths of specific objects) and numbers called coordinates.
2. A relation between two quantities can be represented by an equation in variables representing coordinates for the quantities; by a graph on a pair of axes marked with units for the quantities; and by a table of coordinate pairs from the relation. The graph and the table show pairs that are solutions to the equation.

Core Standards · Students can and do:

a. Build equations to express relations between quantities and solve problems.

Include equations arising from situations involving linear, quadratic, simple rational, and exponential functions.

b. Rearrange formulas to isolate a quantity of interest.
c. Build systems of equations and solve problems involving systems of equations.

Reasoning with equations and inequalities

Core Standards · Students understand that:

1. To solve an equation algebraically, one assumes it is true and deduces the solutions, often in steps that replace it with a simpler equation whose solutions include the solutions of the original one.
2. Adding a number to both sides of an equation, or multiplying both sides by a nonzero number, leads to an equation that has exactly the same solutions as the original.
3. If the product of two numbers is zero, then at least one equals zero, and conversely. This principle is the basis for solving equations by factoring.
4. Multiplying both sides of an equation by an expression that can be zero for certain values of the variables in it, or squaring both sides of an equation, can lead to an equation that has more solutions than the original. Evaluating these in the original equation eliminates extraneous solutions.
5. The method of completing the square can transform any quadratic equation in x into an equivalent equation of the form $(x-p)^2 = q$. This leads to the quadratic formula.
6. Equations not solvable in one number system may have solutions in a larger number system.
7. Equations of the form $f(x) = g(x)$ can be solved graphically by finding the intersections (if any) of the graphs of $f(x)$ and $g(x)$.
8. The relationship between a function f and its inverse (if it has one) can be used to solve equations of the form $f(x) = c$. For example, a logarithmic function can help solve exponential equations, and an inverse trigonometric function can help solve trigonometric equations.
9. Given a system of linear equations, adding a multiple of one equation to another produces a system with the same solutions. This principle, combined with principles already encountered with equations in one variable, allows for the simplification of systems.

10. The solutions to an equation in two variables form a graph—a set of points, often a curve or a line, in the coordinate plane.

11. The solutions to two equations in two variables (if any) can be visualized as the points of intersection of their graphs, because those points satisfy both equations simultaneously.

12. The solution to a system of inequalities in two variables can be visualized as the intersection of the regions in the plane defined by the inequalities.

Core Standards · Students can and do:

a. Solve simple rational and radical equations, noting and explaining extraneous solutions.
b. Solve quadratic equations over the real numbers by completing the square, using the quadratic formula and factoring.
c. Solve linear inequalities in one variable and graph the solution set on a number line.

   Emphasize solving the associated equality and determining on which side of the solution of the associated equation the solutions to the inequality lie.

d. Solve linear systems of equations algebraically, focusing on pairs of linear equations in two variables.
e. Graph a system of two linear or quadratic equations in two unknowns and estimate the solution from a graph.
f. Graph the solution set of a linear inequality in two variables.
g. Use the properties of logarithms to solve equations involving exponential functions.
h. Use inverse trigonometric functions to solve equations of the form $A\sin(Bx + C) = D$.
i. Find complex roots of quadratic equations.
j. Solve a system of two quadratic equations in two unknowns.

Mathematics: High School—Functions

A Coherent Understanding of Functions

[Final draft of CCR narrative goes here.]

Interpreting functions

Core Standards · Students understand that:

1. The domain of a function is the set of its inputs, and the range is the set of its outputs.
2. Function notation uses a letter to stand for a function. If f is a function and x is a number in its domain, then $f(x)$ indicates the output of f corresponding to the input x.
3. Functions can be described by key characteristics, including: zeros; vertical intercept; extreme points; average rates of change (over intervals); intervals of increasing, decreasing and/or constant behavior; and end behavior.
4. Linear, quadratic and exponential functions are defined by expressions that have forms specific to each type, in which the parameters can often be interpreted in terms of characteristics of the graph.
5. An equation in two variables implicitly expresses one variable as a function of the other if there are no points on the graph having the same value of the first variable but different values of the second.
6. When x is a power of ten, the common logarithm $\log(x)$ tells the exponent. When x lies between 10^n and 10^{n+1}, $\log(x)$ lies between n and $n+1$.

Core Standards · Students can and do:

a. Describe qualitatively the functional relationship between two quantities by reading a graph; e.g., where the function is increasing or decreasing, what its long run behavior appears to be, and whether it appears to be periodic.
b. Sketch a graph that exhibits the qualitative features of a function that has been described verbally.
c. Compare values and properties of two functions represented in different ways (algebraically, graphically, numerically in tables, or by verbal descriptions).
d. Relate the domain and range of a function to its graph and, where applicable, to the quantitative relationship it describes.
e. Describe the qualitative behavior of common types of functions using graphs and tables.

   Identify: intercepts; intervals where the function is increasing, decreasing, positive or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. Use technology to explore the effects of parameter changes on the graphs of linear, power, quadratic, square root and cube root, polynomial, simple rational, exponential, logarithmic, sine and cosine, absolute value and step functions.

f. Interpret the parameters in the general expressions for linear, quadratic, and exponential functions, and draw conclusions about the parameters by inspection of the graph.
g. Given a function f, and given a constant c, evaluate $f(c)$ if possible and find solutions to $f(x) = c$ (if they exist). Where appropriate, relate the possibility of evaluation to the domain and the existence or nonexistence of solutions to the range.

Building functions

Core Standards · Students understand that:

1. Varying a parameter in the general expression for a linear, quadratic or exponential function can (often) be interpreted as performing a geometric transformation on the graph. This can be used to adjust a function to model a particular situation.

2. Composing a function f with a function g creates a new function called the composite function—for an input number x, the output of the composite function is $f(g(x))$.
3. The inverse of a function "undoes" what the function does; that is, composing the function with its inverse in either order returns the original input.
4. Sequences are functions whose domain is the whole numbers, and they can be defined recursively as well as explicitly. Arithmetic sequences are linear functions and geometric sequences are exponential functions.

Core Standards · Students can and do:

a. Make graphs of linear, quadratic, cubic, absolute value and exponential functions, and, given the graph of one of these types, identify the type.
b. Sketch graphs of quadratic functions presented in the form $y = ax^2+bx+c$, $y = a(x-h)^2+k$ and $y = a(x-p)(x-q)$ (without plotting points).
c. Solve problems involving quadratic functions, such as analyzing projectile motion and maximizing profit.
d. Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, and $f(x + k)$. Include both positive and negative k; find the value of k given the graphs.
e. Write an expression of the form $a(1+r)^t$ or ab^t for an exponential function to express a constant percent growth rate or a constant growth factor.
f. Evaluate composite functions and compose functions symbolically in simple cases (e.g. one or both functions linear).
g. Read values of an inverse function from a graph or a table, given that the function has an inverse.
h. For linear or simple exponential functions, find a formula for an inverse function by solving an equation.
i. For linear functions or simple exponential functions, verify symbolically by composition that one function is the inverse of another.
j. Write arithmetic and geometric sequences both recursively and in closed form, and translate between the two forms.

Linear vs. exponential behavior

Core Standards · Students understand that:

1. Linear functions grow by equal differences in equal time periods; exponential functions grow by equal factors in equal time periods.
2. The rate of change of a linear function is constant; the rate of change of an exponential function is proportional to the value of the function.
3. Exponential growth eventually outstrips polynomial growth (including, in particular, linear growth).

Students can and do:

a. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.
b. Interpret absolute and relative rates of change and use them to make predictions.
c. Identify the initial value and growth or decay rate from a table or graph of an exponential function.
d. Calculate and interpret the growth factor for an exponential function (presented symbolically or as a table) given a fixed time interval. Estimate the growth factor from a graph.
e. Recognize a quantitative relationship as linear or exponential from description of a situation.

Trigonometric functions

Core Standards · Students understand that:

1. The unit circle in the coordinate plane enables one to extend the domains of the sine, cosine and tangent functions of right-triangle trigonometry to the real numbers.
2. Trigonometric functions are periodic by definition, and sums and products of these functions are periodic.
3. Restricting trigonometric functions to a domain on which they are always increasing or always decreasing allows for the construction of an inverse function.

Core Standards · Students can and do:

a. Use radian measure and revisit graphs of trigonometric functions in terms of radians.
b. Use the unit circle to determine geometrically the values of sine, cosine, tangent for multiples of $\pi/4$ and $\pi/3$; commit sines and cosines of principal angles to memory.
c. Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.
d. Solve simple trigonometric equations formally using inverse trigonometric functions;[64] evaluate solutions using technology.
e. Explain relationships between the identity $\sin^2 x + \cos^2 x = 1$, the equation of a circle, and the Pythagorean theorem.
f. Explain proofs of the sine and cosine addition and subtraction formulas.
g. Use trigonometric identities to simplify expressions.
h. Use trigonometric functions to solve problems in science, economics or other fields where periodic phenomena occur.

[64] Solving trigonometric equations by means of the quadratic formula is optional.

Mathematics: High School—Coordinates

A Coherent Understanding of Coordinates.

[Final draft of CCR narrative goes here.]

Expressing geometric properties with equations

Core Standards · Students understand that:

1. The graph of a linear equation is the straight line through any two of its solutions. Conversely, any line is the set of solutions to some linear equation.
2. Two lines with well-defined slopes are parallel if their slopes are equal and perpendicular if their slopes multiply to –1.
3. The equation of a circle can be found using its definition and the Pythagorean theorem.
4. Transforming the graph of an equation by reflecting in the axes, translating parallel to the axes, or applying a dilation to one of the axes correspond to substitutions in the equation.

   For example, reflection in the y axis corresponds to $(x,y) \rightarrow (-x,y)$, translation vertically down by three units corresponds to $(x,y) \rightarrow (x,y+3)$, and dilating by a factor of 2 parallel to the x-axis corresponds to $(x, y) \rightarrow (x/2, y)$.
5. An ellipse is obtained by stretching a circle, leading to an equation of the form $x^2/a^2 + y^2/b^2 = 1$.
6. The formula $A = \pi ab$ for the area of an ellipse can be derived from the formula for the area of a circle.

Core Standards · Students can and do:

a. Write the equation of a line in point-slope form, slope-intercept form, or standard form.
b. Identify parallel and perpendicular lines in a coordinate plane, and use the relationship between slopes of parallel and perpendicular lines to solve problems. Know the equations of vertical and horizontal lines.
c. Find the point on the segment between two given points that divides the segment in a given ratio.
d. Complete the square to find the center and radius of a circle given by an equation.
e. Find an equation for an ellipse given the lengths of its major and minor axes; calculate the area of an ellipse.
f. Use coordinates to solve geometric problems.

   Include proving simple geometric theorems algebraically, using coordinates to compute perimeters and areas for triangles and rectangles, finding midpoints of line segments, finding distances between pairs of points and determining when two lines are parallel or perpendicular.

Vectors and matrices[65]

Core Standards · Students understand that:

1. Vectors are quantities having both magnitude and direction. They are typically represented by directed line segments.
2. On a coordinate plane, vectors are determined by the coordinates of their initial and terminal points or by their x- and y-components.

[65] Limit to vectors in the plane and 2x2 matrices.

3. Vectors can be added end-to-end, component-wise, or by the parallelogram rule. The length of the sum of two vectors is typically not the sum of the lengths.
4. Translations of the plane can be represented by vectors.
5. Vectors are often used to describe "directed quantities" in physics, such as position, velocity, acceleration and force. Vector addition is used to find resultant forces or compute displacements.
6. Multiplying a 2x2 matrix into a vector produces another vector. This can be viewed as a transformation of the plane.
7. A system of two linear equations in two variables can be represented as a single matrix equation in a vector variable.
8. Matrices can be added, subtracted and multiplied.
9. The zero and identify matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a 2x2 matrix determines whether it has a multiplicative inverse.

Core Standards · Students can and do:

a. Represent vectors graphically.
b. Perform basic vector operations (addition, subtraction, scalar multiplication) both graphically and algebraically.
c. Use vectors to model and solve problems.
d. Use trigonometry to decompose a vector into perpendicular components.
e. Add, subtract and multiply matrices.
f. Represent systems of equations as matrix equations.
g. Find the inverse of a matrix if it exists and use it to solve equations.

Complex Numbers

Core Standards · Students understand that:

1. To solve quadratic equations that have no solutions in the real numbers, the number system can be extended to include the square roots of -1, creating a closed number system called the complex numbers.
2. The Properties of Arithmetic and the relation $i^2 = -1$ can be used to perform operations on complex numbers.
3. All polynomials can be factored over the complex numbers, e.g. as in $x^2 + 4 = (x + 2i)(x - 2i)$.
4. Complex numbers can be visualized on the complex plane. Real numbers fall on the horizontal (real) axis, and imaginary numbers fall on the vertical axis.
5. On the complex plane, arithmetic of complex numbers can be interpreted geometrically: addition is analogous to vector addition, and multiplication can be understood as rotation and dilation about the origin. Complex conjugation is reflection across the real axis.
6. The absolute value (or modulus) of a complex number is defined as its distance from the origin in the complex plane. On the complex plane, as on the real line, the distance between numbers is the absolute value of the difference, and the midpoint of a segment is the average of the numbers at its endpoints.
7. Euler's formula $e^{i\theta} = \cos\theta + i\sin\theta$ links complex numbers to trigonometry.

Core Standards · Students can and do:

a. Add, subtract and multiply complex numbers.
b. Find the conjugate of complex a number and use it to find absolute values and divide complex numbers.
c. Graph complex numbers in both rectangular and polar form and interpret arithmetic of complex numbers geometrically.

d. Solve quadratic equations over the complex numbers.
e. Convert complex numbers between rectangular and polar form.
f. Re-derive trigonometric identities using complex methods.

Mathematics: High School—Modeling

A Coherent Understanding of Modeling.

Modeling uses mathematics to help us make sense of the real world—to understand quantitative relationships, make predictions, and propose solutions.

A model can be very simple, such as a geometric shape to describe a physical object like a coin. Even so simple a model involves making choices. It is up to us whether to model the solid nature of the coin with a three-dimensional cylinder, or whether a two-dimensional disk works well enough for our purposes. For some purposes, we might even choose to adjust the right circular cylinder to model more closely the way the coin deviates from the cylinder.

In any given situation, the model we devise depends on a number of factors: How precise an answer do we want or need? What aspects of the situation do we most need to understand, control, or optimize? What resources of time and tools do we have? The range of models we can create and analyze is constrained as well by the limitations of our mathematical and technical skills. For example, modeling a physical object, a delivery route, a production schedule, or a comparison of loan amortizations each requires different sets of tools. Networks, spreadsheets and algebra are powerful tools for understanding and solving problems drawn from different types of real-world situations. One of the insights provided by mathematical modeling is that essentially the same mathematical structure might model seemingly different situations.

The basic modeling cycle is one of (1) identifying the key features of a situation, (2) creating geometric, algebraic or statistical objects that describe key features of the situation, (3) analyzing and performing operations on these objects to draw conclusions and (4) interpreting the results of the mathematics in terms of the original situation. Choices and assumptions are present throughout this cycle.

The modeling cycle and general tools

Core Standards · Students understand that:

1. The behavior of quantities in physical, economic, public policy, social and everyday situations can be modeled using mathematics. Mathematics is used to model relationships among quantities, constraints and objectives.
2. Models are formulated to answer questions about the world based on an analysis of the situation and a conceptual model that involves assumptions and choices.
3. Quantities in the situation are represented by variables in the model, usually through measurement. Modeling includes decisions about what to measure and how, and how well the measurements work for the purpose.
4. Mathematical knowledge and skill are required in order to get results from a mathematical model—even to devise a model in the first place. Areas of mathematics commonly used in modeling include linear, quadratic, exponential or other functions; probability and statistics; and geometry (solid, plane and coordinate). In active modeling, fluency with math content is required in order to focus on the larger problem.
5. Technology is often required in order to obtain results from a model.
6. The results of a mathematical model must be evaluated against evidence and the phenomena at hand. If the mathematics is correct, then unreasonable results point to unreasonable assumptions and the need to revise the model.
7. Real-world problems do not announce that they are amenable to mathematical analysis and solution; bringing mathematics to bear on such a problem is a highly creative act.

Core Standards · Students can and do:

a. Creatively apply the mathematics they know to situations in which it only imperfectly applies—and achieve useful results by doing so.

For example, independently choose to describe HIV transmission as a random event with a fixed probability per sexual encounter.

b. Decide what measures are relevant to a problem.

For example, given the purpose at hand, is traffic safety best measured in terms of fatalities per year or fatalities per vehicle-mile? (or fatalities per 100 million vehicle-miles?)

c. Use network diagrams or other techniques to visualize complex situations with many factors, causes or agents.

For example, what agents and factors are responsible for setting the price of gasoline? How do they interact?

d. In situations with many factors, causes or agents, organize the factors/causes/agents into a hierarchy of importance.

For example, what are the primary, secondary, and relatively rare causes of lung cancer?

e. Use order of magnitude estimates, unprompted, to identify important effects, disregard unimportant effects and predict results of a more detailed model.

f. Use 2-by-2 tables, flowcharts, and other strategies to organize information and manage scenarios.

Modeling with geometry, equations, functions, probability, and statistics

Core Standards · Students can and do:

a. Model physical objects with geometric shapes.

Include common objects that can reasonably be idealized as two- and three-dimensional geometric shapes. Identify the ways in which the actual shape varies from the idealized geometric model.

b. Model situations with equations and inequalities.

Include situations well described by a linear inequality in two variables or a system of linear inequalities defining a region in the plane.

c. Model situations with common functions.

Include situations well described by linear, quadratic or exponential functions; and situations that can be well described by inverse variation ($f(x) = k/x$). Include identifying a family of functions that models features of a problem, and identifying a particular function of that family and adjusting it to fit by changing parameters. Understand the recursive nature of situations modeled by linear and exponential functions.

d. Model situations using probability and statistics.

Include using simulations to model probabilistic situations; describing the shape of a distribution of values and summarizing a distribution with measures of center and variability; modeling a bivariate relationship using a trend line or a regression line.

Mathematics: High School—Statistics

A Coherent Understanding of Statistics.

[Final draft of CCR narrative goes here.]

Summarizing and interpreting categorical, count and measurement data

Core Standards · Students understand that:

1. Statistical methods take variability into account to support making informed decisions based on quantitative studies designed to answer specific questions.
2. Visual displays and summary statistics condense the information in data sets into usable knowledge.

Core Standards · Students can and do:

a. Summarize comparative or bivariate categorical data in two-way frequency tables; interpret joint, marginal and conditional relative frequencies in the context of the data.
b. Compare data on two or more count or measurement variables by using plots on the real number line (dot plots, histograms and box plots); use appropriate statistics to summarize center (median, mean) and spread (interquartile range, standard deviation) of the data sets; interpret changes in shape, center and spread in the context of the data sets, accounting for possible effects of extreme data points.
c. Summarize bivariate quantitative data by giving a regression line and a measure of goodness of fit.

Making inferences and justifying conclusions drawn from data

Core Standards · Students understand that:

1. Statistics is a process for making inferences about population parameters based on a sample from that population; randomness is the foundation for statistical inference.
2. The design of an experiment or sample survey is of critical importance to analyzing the data and drawing conclusions.

Core Standards · Students can and do:

a. Use probabilistic reasoning to decide if a specified model is consistent with a given data-generating process.
b. Recognize the purposes of and differences among sample surveys, experiments and observational studies; explain how randomization relates to each.
c. Use data from a sample survey to estimate a population parameter.
d. Use data from a randomized experiment to compare two treatments.
e. Evaluate reports based on data.

Mathematics: High School—Probability

A Coherent Understanding of Probability.

[Final draft of CCR narrative goes here.]

Modeling random events with finite sample spaces

Core Standards · Students understand that:

1. Random phenomena can be modeled mathematically using a sample space in which sample points represent distinct outcomes, and in which each sample point is assumed to have the same probability.
2. Events are subsets of a sample space that can be defined using characteristics (or categories) of the sample points, as well as unions, intersections, or complements thereof ('and', 'or', 'not'). A sample point may belong to several events (categories).
3. If A and B are two events (categories), then the conditional probability of A given B, denoted by $p(A \mid B)$, is the fraction of sample points in B that also lie in A.
4. The laws of probability can be used to generate new probabilities from known probabilities.

Core Standards · Students can and do:

a. Compute theoretical probabilities of compound events by constructing and analyzing representations, including tree diagrams, systematic lists, and Venn diagrams
b. Use the addition and multiplication laws of probability to compute probabilities of complementary, disjunctive, and compound events.
c. Apply concepts such as intersections, unions and complements of events, and conditional probability and independence, to define or analyze compound events, calculate probabilities, and solve problems.
d. Construct and interpret two way tables to show probabilities when two characteristics (or categories) are associated with each sample point. Use a two way table to determine conditional probabilities.
e. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations.
f. Use permutations and combinations to compute probabilities of compound events and solve problems.

Experimenting and simulating to model probabilities

Core Standards · Students understand that:

1. Sets of data obtained from surveys, simulations, or other means, can be used as probability models, by treating the data set itself as a sample space, in which the sample points are the individual pieces of data. The probability of an event within the data set is its relative frequency.
2. The law of large numbers provides the basis for estimating certain probabilities by use of empirical relative frequencies.
3. The probability of an outcome can be interpreted as an assertion about the long-run proportion of the time the outcome will occur if the random experiment is repeated a large number of times. The observed proportion of occurrence for the outcome of interest can be used as an estimate of the relevant probability.

Core Standards · Students can and do:

a. Calculate experimental probabilities by performing simulations or experiments involving a probability model and using relative frequencies of outcomes.

b. Compare the results of simulations (e.g., random number tables, random functions, and area models) with predicted probabilities. When there are substantial discrepancies between predicted and observed probabilities, explain them in terms of the assumptions of the probability model.
c. Use the relationship between conditional probabilities and relative frequencies in contingency tables to analyze decision problems.
d. Use the mean and standard deviation of a data set to fit it to a normal distribution (bell-shaped curve) and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets and tables to estimate areas under the normal curve.
e. Apply the binomial theorem to solve probability problems.

Using probability to make decisions

Core Standards · Students understand that:

1. A probability distribution is a collection of probabilities $\{p_1, \ldots, p_n\}$ for a set of mutually exclusive and jointly exhaustive events $\{E_1, \ldots, E_n\}$. The probabilities in a probability distribution sum to unity.
2. A random variable attaches a value to each event in a probability distribution. The expected value of the random variable is the weighted average of its possible values, with weights given by their respective probabilities.
3. When the possible outcomes of a decision can be assigned probabilities and payoff values, the decision can be analyzed as a random variable with an expected value, e.g. of a wager. If possible, this is the first thing to compute in a decision context.

Core Standards · Students can and do:

a. Calculate expected value to analyze mathematical fairness, payoff.
b. Evaluate and compare options in situations where all of the available options share the same expected value but carry different levels of risk.
c. Analyze each of two options and make a quantitatively informed decision in situations where one option has both a higher expected return and a higher level of risk. Include both low-stakes and high-stakes decisions.
d. Analyze decision problems using probability concepts.

Mathematics: High School—Geometry

A Coherent Understanding of Geometry.

[Final draft of CCR narrative goes here.]

Triangle Congruence

Core Standards · Students understand that:

1. Rigid motions move lines to lines and segments to segments; preserve the distance between points; and preserve measures of angles.
2. Two geometric figures are congruent if there is a sequence of rigid motions that carries one onto the other. This is the principle of superposition.
3. Criteria for triangle congruence can be thought of as answers to the following question: What information about the measures in a triangle ensures that all triangles drawn with those measures are congruent?
4. Criteria for triangle congruence can be established using rigid motions.

Core Standards · Students can and do:

a. Use (in reasoning and problem solving) precise definitions of angles, polygons, parallel and perpendicular lines, rigid motions (rotations, reflections, translations), parallelograms and rectangles; commit these definitions to memory.

b. Prove theorems about lines and angles; test conjectures and identify logical errors in fallacious proofs.

Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; measures of supplementary angles sum to 180°; two lines parallel to a third are parallel to each other; points on a perpendicular bisector of a segment are exactly those equidistant from the segment's endpoints.

c. Prove theorems about triangles; test conjectures and identify logical errors in fallacious proofs.

Theorems include: measures of interior angles of a triangle sum to 180°, base angles of isosceles triangles are equal, the triangle inequality, the longest side of a triangle faces the largest side and vice-versa, the exterior-angle inequality, and the segment joining midpoints of two sides of a triangle parallel to the third side and half the length.

d. Use and prove properties of and relationships among special quadrilaterals: parallelogram, rectangle, rhombus, square, trapezoid and kite.

e. Characterize parallelograms in terms of equality of opposite sides, in terms of equality of opposite angles, and in terms of bisection of diagonals; characterize rectangles as parallelograms with equal diagonals.

Similarity, Right Triangles and Trigonometry

Core Standards · Students understand that:

1. The dilation of a given line is parallel to the given line. (In particular, lines passing through the center remain unchanged.)
2. The dilation of a given segment is parallel to the given segment and longer or shorter in the ratio given by the scale factor. A dilation leaves a segment unchanged if and only if the scale factor is 1.
3. The assumed properties of dilations can be used to establish the AA, SAS and SSS criteria for similarity of triangles.
4. Similarity allows one to view side ratios in right triangles as properties of the angles themselves, leading to elementary definitions of sine, cosine and tangent.

Core Standards · Students can and do:

a. Use triangle similarity criteria to solve problems and to prove relationships in geometric figures.
b. Prove that two lines with well-defined slopes are parallel if and only if they have the same slope, and perpendicular if and only if the product of their slopes is equal to -1.
c. Give an informal explanation using successive approximation that a dilation of scale factor r changes the length of a curve by a factor of r and the area of a region by a factor of r^2.
d. Use and explain the relationship between the trigonometric ratios of complementary angles.
e. Use trigonometric ratios and the Pythagorean theorem to solve right triangles[66] in applied problems.

Circles

Core Standards · Students understand that:

1. All circles are similar.
2. There is a unique circle through three non-collinear points, or tangent to three non-concurrent lines.

Core Standards · Students can and do:

a. Identify and describe relationships among angles, radii, and chords.

   Include the relationship between central, inscribed and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.

b. Identify and define radius, diameter, chord, tangent, secant and circumference.
c. Determine the arc lengths and the areas of sectors of circles, using proportions.
d. Construct a tangent line from a point outside a given circle to the circle.
e. Prove and use basic theorems about circles, and use these theorems to solve problems. Include:

   - Symmetries of a circle
   - Similarity of a circle to any other
   - Tangent line, perpendicularity to a radius
   - Inscribed angles in a circle, relationship to central angles, and equality of inscribed angles
   - Properties of chords, tangents and secants as an application of triangle similarity.

Axiomatic Systems

Core Standards · Students understand that:

1. Mathematical statements are proven or disproven by deductive reasoning. Conjectures can arise from inductive reasoning, but they cannot be proven that way.
2. Precise definitions make possible rigorous logical reasoning, and definitions shared in common make possible the objective evaluation of one's own reasoning by others.
3. Logical reasoning requires avoiding common fallacies, such as using an example to prove the rule or confusing a statement with its converse.
4. Axiomatic systems require precise definitions, but some terms must be left "undefined." The axioms specify how the undefined terms behave.
5. The first three postulates of the *Elements* are models of straightedge and compass construction.
6. Hilbert and other mathematicians improved on the *Elements* by identifying its hidden assumptions and making them explicit with additional axioms.

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[66] A right triangle has five parameters, its three lengths and two acute angles. Given a length and any other parameter, "solving a right triangle" means finding the remaining three parameters. (It is worth reflecting on why this problem is well-posed.)

7. Three classical construction problems (trisecting an angle, duplicating a cube and squaring a circle) inspired the development of much important mathematics.

8. The Parallel Postulate (axiom) distinguishes Euclidean geometry from other geometries. Other geometries, such as spherical and hyperbolic geometry, use alternatives to the Parallel Postulate. Many theorems of Euclidean geometry are not theorems in other geometries.

Core Standards · Students can and do:

a. Use the terms point, line and plane to define other geometric terms as line segments, angles and rays.
b. With ruler and compass:
   - Divide a segment into any number of equal parts.
   - Given two segments of lengths r and s, construct a segment of length rs and one of length r/s.
   - Given a segment of length r, construct a segment of length $\sqrt{r}$.

Trigonometry of General Triangles

Core Standards · Students understand that:

1. The Law of Sines generalizes the side-angle inequality.

2. The Law of Cosines generalizes the Pythagorean theorem.

3. The Laws of Sines and Cosines embody the triangle congruence criteria, in that three pieces of information are usually sufficient to completely solve a triangle. Furthermore, these laws yield two possible solutions in the ambiguous case, illustrating that "Side-Side-Angle" is not a congruence criterion.

Core Standards · Students can and do:

a. Explain proofs of the Law of Sines and the Law of Cosines.
b. Use the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).

Geometric Measurement and Dimension

Core Standards · Students understand that:

1. Congruence plays a fundamental role defining the concepts of length, area and volume.

2. Areas of polygons can be computed by dissecting them into triangles and using the fundamental property of area, that the area of a dissected figure is the sum of the areas of its components.

3. Lengths of curves and areas of curved regions can be defined informally using the concept of "limit."

4. Cavalieri's principle allows one to understand volume formulas informally by visualizing volumes as stacks of thin slices.

Core Standards · Students can and do:

a. Give definitions of rectangular prism, (right) pyramid, (right circular) cone, (right circular) cylinder and sphere.

b. For a pyramid or a cone, give an heuristic argument to show why its volume is (1/3) its height times the area of its base.

c. Use the behavior of length and area under dilations to prove the formulas for the circumference and area of a circle.

d. Apply formulas and solve problems involving volume and surface area of right prisms, right circular cylinders and right pyramids, cones, spheres and composite figures.

e. Identify and apply the 3:2:1 relationship among volumes of circular cylinders, hemispheres and cones with same height and circular base and 3:1 relationship between volume of a prism and pyramid with same base area and height.

f. Identify cross-sectional shapes of slices of three-dimensional objects, and identify three-dimensional objects traced out by rotations of two-dimensional objects.

Mathematics: High School—Calculus

Calculus is an important part of the high school curriculum for a large and growing number of students. To see well-established standards for this course, please see course descriptions such as those of the College Board, International Baccalaureate Organization, or any of the following states: California, Florida, Hawaii, Indiana, Mississippi, Pennsylvania, South Carolina, Tennessee, Utah, and Virginia. We invite feedback from states as to whether they would like to see Calculus in future drafts of the Common Core Standards.

Progressions in Grades K–8

Note, a progression may appear in more than one band.

Grades K-5

Number

Counting and Cardinality
Base Ten Computation
Early Relations and Operations
Quantity and Measurement
Operations and the Problems They Solve
Fractions

Geometry

Shapes
Coordinates
Geometry

Data

Statistics

Grades 6-8

Number

The Number System

Algebra

Ratios and Proportional Relationships
Expressions and Equations
Functions and the Situations They Model

Geometry

Geometry

Data

Statistics
Probability

List of Progressions and Grade Ranges

Strand	Progression	Start	End
Number	Counting and Cardinality	K	K
	Early Relations and Operations	K	1
	Base Ten Computation	K	5
	Quantity and Measurement	K	5
	Operations and the Problems They Solve	2	4
	Fractions	3	5
	Ratios and Proportional Relationships	6	7
	The Number System	6	8
Geometry	Shapes	K	4
	Coordinate Geometry	5	5
	Geometry	6	8
Algebra*	Expressions and Equations	6	7
	Functions & The Situations They Model	8	8
Data*	Statistics	5	8
	Probability	7	8

* The Algebra and Data strands have concepts and skills in earlier grades that progressions in the Number strand.

GLOSSARY

Additive inverses. Two numbers whose sum is 0 are additive inverses of one another. Example: $3/4$ and $-3/4$ are additive inverses of one another because $3/4 + (-3/4) = (-3/4) + 3/4 = 0$.

Algorithm. A step by step routine that always gives some answer, rather than ever giving no answer; that always gives the right answer, and never gives a wrong answer; that can always be completed in a finite number of steps, rather than in an infinite number of steps; and that applies to all problems of a given type (e.g., adding any two multidigit whole numbers, or bisecting any angle). Cf. Wikipedia's "effective procedure," from which this definition is adapted.

Common logarithm. The common logarithm of x is the power to which you raise 10 in order to get x.

Congruent. Two plane or solid figures are congruent if one can be obtained from the other by a sequence of rigid motions (rotations, reflections, and translations).

Dilation. A transformation that moves each point along the ray through the point emanating from a fixed center, and multiplies distances from the center by a common scale factor.

Integer. A positive whole number, a negative whole number, or 0.

Mean. The sum of the values in a list divided by the number of values in the list. (To be more precise, this defines the *arithmetic mean*.)

Median. In a list of values, the value appearing at the center of a sorted version of the list—or the mean of the two central values, if the list contains an even number of values.

Multiplicative inverses. Two numbers whose product is 1 are multiplicative inverses of one another. Example: $3/4$ and $4/3$ are multiplicative inverses of one another because $3/4 \times 4/3 = 4/3 \times 3/4 = 1$.

Range. The difference between the greatest and smallest values in a list of numbers.

Rational number. A number expressible in the form a/b for integers a and $b \neq 0$. The rational numbers include positive and negative integers, positive and negative fractions, and 0.

Related fractions. Two fractions are *related* if one denominator is a factor of the other. (See Ginsburg, Leinwand and Decker (2009), *Informing Grades 1-6 Mathematics Standards Development: What Can Be Learned from High-Performing Hong Kong, Korea, and Singapore?*, Table A1, p. A-5, grades 3 and 4.)

Similarity transformation. A rigid motion followed by a dilation.

Single-place number. The numbers that result when a whole number between 1 and 9 (inclusive) is multiplied by the numbers 10, 100, 1000, etc.

Teen number. A whole number that is greater than or equal to 11 and less than or equal to 19.

Transitive property of measurement order. If one object is bigger than a second, and the second object is bigger than a third object, then the first object is bigger than the third object.

B-3: 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.

[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.

- *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.

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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.

B-4: NUMBER AND LIST OF STATES PARTICIPATING IN COMMON CORE STANDARDS CONSORTIUM

Alabama
Arizona
Arkansas
California
Colorado
Connecticut
Delaware
District of Columbia
Florida
Georgia
Hawaii
Idaho
Illinois
Indiana
Iowa
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Michigan
Minnesota
Mississippi
Montana
Nebraska
Nevada
New Hampshire
New Jersey
New Mexico
New York
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
Puerto Rico
Rhode Island
South Dakota
Tennessee
Utah
Vermont
Virgin Islands
Virginia
Washington
West Virginia
Wisconsin
Wyoming

49 (46 states; the District of Columbia; 2 territories)

B-5: RACE TO THE TOP ASSESSMENT CONSORTIUM MEMORANDUM OF AGREEMENT

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:_____

Name:_____
Title:_____
Date:_____

STATE OF INDIANA

By:_____

Name: Dr. Tony Bennett
Title: Supt. of Public Instruction
Date: January 5, 2010

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:_____

B-6: BALANCED ASSESSMENT CONSORTIUM MEMORANDUM OF UNDERSTANDING

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)

Signature

1/9/09
Date

Dr. Tony Bennett
Print Name

Superintendent of Public Instruction
Title

Please email this signed page to

Tammy Morrill
Tammy.Morrill@maine.gov

****PLEASE email this signed page only by January 7, 2010****

B-7: Achieve Assessment Consortium Memorandum of Understanding

BOARD OF DIRECTORS

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State of Tennessee

Craig R. Barrett
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Intel Corporation

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Governor Deval Patrick
State of Massachusetts

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Former Chairman & CEO
IBM Corporation

PRESIDENT
Michael Cohen

TREASURER
Peter Sayre
Controller
Prudential Financial, Inc.

January 15, 2010

Dr. Tony Bennett
State Superintendent of Public Instruction
Indiana Department of Education
State House Rooom 228
200 West Washington Street
Indianapolis, IN 46204-2798

Dear Superintendent Bennett:

Achieve is pleased to confirm Indiana'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.

Indiana'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
President

States Committed to Assessment Partnership
(As of 10:00am 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.

B-8: LIST OF STATES PARTICIPATING IN VARIOUS ASSESSMENT CONSORTIA

Race to the Top Assessment Consortium

Arizona
District of Columbia
Florida
Georgia
Illinois
Indiana
Kentucky
Louisiana
Maryland
Massachusetts
Mississippi
New Jersey
New York
North Carolina
Pennsylvania
South Carolina
Tennessee

Balanced Assessment Consortium

Alabama
Arizona
Arkansas
California
Connecticut
Delaware
Georgia
Illinois
Indiana
Iowa
Kansas
Kentucky
Maine
Maryland
Massachusetts
Michigan
Mississippi
Missouri
Missouri
Montana
Nebraska
New Hampshire
New Jersey
North Carolina
North Dakota
Ohio
Oklahoma
Pennsylvania
Rhode Island
South Carolina
South Dakota
Tennessee
Utah
Washington, D.C.
West Virginia
Wisconsin
Wyoming

Achieve Assessment Consortium*

Alabama
Arizona
Arkansas
California
Delaware
District of Columbia
Florida
Georgia
Hawaii
Illinois
Indiana
Kentucky
Louisiana
Maryland
Massachusetts
Michigan
Minnesota
New Hampshire
New Mexico
North Carolina
Ohio
Oklahoma
Pennsylvania
Rhode Island
Tennessee
Utah
Wisconsin

*** States listed below are confirmed as of 11:00am EST on January 15, 2010**

D-1: 2008-2009 ALTERNATE ROUTES SUMMARY CHART

2008-2009 Program Completers Alternative Route Pathway/Transition to Teaching

Institution of Higher Education	Number of Program Completers	Content Area
Anderson University	1	Art
Anderson University	1	Chemistry
Anderson University	16	Elementary
Anderson University	2	English
Anderson University	1	Life Science
Anderson University	2	Social Studies
Anderson Summary	23	
Ball State University	11	Elementary
Ball State Summary	11	
Bethel College	3	Business
Bethel College	27	Elementary
Bethel College	1	English
Bethel College	1	Health/Physical Education
Bethel College	1	Mathematics
Bethel College	4	Social Studies
Bethel College Summary	37	
Butler University	5	Exceptional Needs: Mild Intervention
Butler University Summary	5	
Calumet College St. Joseph	3	Business
Calumet College St. Joseph	2	Business and Math
Calumet College St. Joseph	10	Elementary
Calumet College St. Joseph	1	Elementary and Computer Technology
Calumet College St. Joseph	1	English and Social Studies
Calumet College St. Joseph	1	Journalism
Calumet College St. Joseph	1	Life Science
Calumet College St. Joseph	1	Physics
Calumet College St. Jo Summary	20	
Earlham College	1	Earth Space Science
Earlham College	1	Earth Space and Life Science
Earlham College	3	English
Earlham College	3	Life Science
Earlham College	1	Life Science and Chemistry
Earlham College	1	Math
Earlham College	1	Math and Physics
Earlham College	4	Social Studies
Earlham College	1	Spanish
Earlham College Summary	16	
Goshen College	1	Business
Goshen College	1	Elementary
Goshen College	1	Music
Goshen College Summary	3	
Hanover	1	Elementary

Hanover Summary	1	
Huntington	2	Business
Huntington Summary	2	
Indiana State	1	Business
Indiana State	1	Family Consumer Science
Indiana State	1	Earth Space Science
Indiana State	1	Social Studies
Indiana State Summary	4	
Indiana Univ- Bloomington	2	Chemistry
Indiana Univ- Bloomington	1	Chemistry and Physics
Indiana Univ- Bloomington	1	Chemistry and Math
Indiana Univ- Bloomington	1	Chinese
Indiana Univ- Bloomington	1	Earth Space Science
Indiana Univ- Bloomington	2	English
Indiana Univ- Bloomington	1	German and Journalism
Indiana Univ- Bloomington	1	Journalism and English
Indiana Univ- Bloomington	6	Life Science
Indiana Univ- Bloomington	1	Life Science and Chemistry
Indiana Univ- Bloomington	4	Math
Indiana Univ- Bloomington	1	Physics and English
Indiana Univ- Bloomington	3	Social Studies
Indiana Univ- Bloomington	1	Social Studies and English
Indiana Univ- Bloomington	1	Spanish
Indiana Univ- Bloomington	1	Theater and English
Indiana Univ- Bloomington Summary	28	
Indiana Univ – East	6	Elementary
Indiana Univ – East	2	English
Indiana Univ – East	1	Math
Indiana Univ – East	7	Social Studies
Indiana Univ – East Summary	16	
Indiana Univ- Northwest	1	Life Science
Indiana Univ- Northwest	1	Math
Indiana Univ- Northwest	4	Social Studies
Indiana University Northwest Summary	6	
Indiana Univ –Southeast	18	Elementary
Indiana Univ –Southeast	1	Life Science
Indiana Univ –Southeast	15	Mild Intervention
Indiana Univ –Southeast	1	Social Studies
Indiana Univ –Southeast Summary	35	
Indiana Wesleyan	5	Art
Indiana Wesleyan	5	Chemistry
Indiana Wesleyan	1	Chemistry and Math
Indiana Wesleyan	39	Elementary
Indiana Wesleyan	14	English
Indiana Wesleyan	1	English and Social Studies
Indiana Wesleyan	12	Life Science

Indiana Wesleyan	1	Life Science and Chemistry
Indiana Wesleyan	9	Math
Indiana Wesleyan	3	Music
Indiana Wesleyan	2	Physical Education
Indiana Wesleyan	1	Physical Education and Health
Indiana Wesleyan	18	Social Studies
Indiana Wesleyan	1	Social Studies and Spanish
Indiana Wesleyan	3	Spanish
Indiana Wesleyan Summary	115	
IPFW	1	Earth Space Science
IPFW	12	Elementary
IPFW	1	English
IPFW	2	German
IPFW	1	Life Science
IPFW	2	Social Studies
IPFW	1	Spanish
IPFW Summary	20	
IUSB	11	Elementary
IUSB	7	English
IUSB	4	Life Science
IUSB	2	Math
IUSB	5	Social Studies
IUSB	1	Spanish
IUSB Summary	30	
IUPUI	2	Chemistry
IUPUI	1	Chemistry and German
IUPUI	1	Chinese
IUPUI	1	Earth Space Science
IUPUI	25	Elementary
IUPUI	1	Elementary and Life Science
IUPUI	1	Elementary and Mild Intervention
IUPUI	3	English
IUPUI	6	Life Science
IUPUI	1	Physics
IUPUI	3	Social Studies
IUPUI	2	Spanish
IUPUI Summary	47	
Manchester	1	Elementary
Manchester Summary	1	
Marian University	5	Chemistry
Marian University	12	Elementary
Marian University	8	Elementary and Mild Intervention
Marian University	4	Life Science
Marian University	8	Math
Marian University	2	Math and Mild Intervention
Marian University	1	Mild Intervention and Social Studies

Marian University	1	Mild Intervention and Business
Marian University	1	Mild Intervention and Social Studies
Marian University	6	Spanish
Marian University Summary	48	
Oakland City	1	Art
Oakland City	2	Business
Oakland City	10	Elementary
Oakland City	10	Elementary and Mild Intervention
Oakland City	1	English
Oakland City	2	Social Studies
Oakland City Summary	26	
Purdue Calumet	2	English
Purdue Calumet	1	French
Purdue Calumet	2	Life Science
Purdue Calumet Summary	5	
Purdue	1	Earth Space Science
Purdue	3	Life Science
Purdue	1	Physics
Purdue Summary	5	
St Joseph's	1	Social Studies
St Joseph's Summary	1	
St Mary of the Woods	4	Art
St Mary of the Woods	24	Elementary
St Mary of the Woods	2	English
St Mary of the Woods	3	Life Science
St Mary of the Woods	1	Math
St Mary of the Woods	5	Mild Intervention
St Mary of the Woods	2	Social Studies
St Mary of the Woods Summary	41	
Taylor	5	Elementary
Taylor Summary	5	
U of Evansville	1	Chemistry
U of Evansville Summary	1	
U of Indianapolis	6	Art
U of Indianapolis	8	Business
U of Indianapolis	3	English
U of Indianapolis	1	German
U of Indianapolis	1	Math
U of Indianapolis	2	Music
U of Indianapolis	1	Social Studies
U of Indianapolis Summary	22	
Notre Dame	2	Chemistry
Notre Dame	29	Elementary
Notre Dame	14	English
Notre Dame	2	English and Social Studies
Notre Dame	1	English and Spanish

Notre Dame	10	Life Science
Notre Dame	1	Life Science and Math
Notre Dame	9	Math
Notre Dame	2	Math and Physics
Notre Dame	1	Math and Life Science
Notre Dame	11	Social Studies
Notre Dame	1	Social Studies and Math
Notre Dame	4	Spanish
Notre Dame Summary	88	
U of Phoenix	1	English
U of Phoenix	1	Life Science
U of Phoenix Summary	2	
U of St Francis	1	Art
U of St Francis	1	
Valparaiso University	4	Elementary
Valparaiso University	1	English
Valparaiso University	4	Math
Valparaiso University	1	Physical Education
Valparaiso University	1	Social Studies
Valparaiso University	1	Spanish
Valparaiso University Summary	12	
Wabash	1	Life Science
Wabash	1	Social Studies
Wabash	1	Spanish
Wabash Summary	3	
Indiana Summary	680	

D-2: TRANSITION TO TEACHING INFORMATION

Minimizing barriers to entry

Indiana has a Transition to Teaching ("**TtT**") requirement provided in Indiana Code 20-28-4. Indiana law requires each accredited teacher education school to establish a TtT program. The coursework required for a grades 6-12 license is a maximum of eighteen credit hours. To obtain a grades K-5 license, a candidate must take 24 credit hours, including at least six credit hours in reading instruction. The credit limits in statute minimize participant burden by significantly limiting the amount of coursework required.

As part of raising standards and easing regulations, IDOE is currently rolling out a requirement that all TtT programs must provide the means for candidates to test out of classes. Program participants without teaching experience will be required to have supervised field or classroom experiences. Upon completion, a TtT candidate receives the same Initial Practitioner certification that a candidate from a traditional teaching program receives.

Ensuring high quality candidates

All TtT programs are selective in admittance. Candidates who want to obtain a 6-12 license must have one of the following:

1. A bachelor's degree with a grade point average of at least 3.0 on a 4.0 point scale from an accredited postsecondary educational institution;
2. A graduate degree in the subject area the individual intends to teach; or
3. Both a bachelor's degree, with a minimum 2.5 grade point average, and at least five years of professional experience in the subject area in which the individual intends to teach.

Candidates who want to obtain a K-5 license must have one of the following:

1. A bachelor's degree with a minimum 3.0 grade point average; or
2. Both a bachelor's degree, with a minimum 2.5 grade point average, and at least five years professional experience in an education related field.

Encouraging growth and innovation

Indiana is committed to creating a system that provides highly-qualified, nontraditional candidates with the flexibility and support needed to teach in or lead Indiana's schools. In January 2009, IDOE began working with the Indiana Professional Standards Board ("**PSB**"), which has authority to promulgate rules related to teacher licensing and preparation, to adopt new regulations that allow the board to approve online and alternative providers. IDOE proposed sweeping rule changes, which were adopted by the PSB in January of 2010 and are slated to go into effect July 31, 2010. These changes are the first step in creating alternative routes for licensing in Indiana through a diversity of providers. IDOE will bring all alternative routes providers interested in preparing Indiana teachers before the PSB in the coming year.

The IDOE has begun piloting innovative solutions for certifying school teachers and leaders. Developed in conjunction with Brown University, IDOE funded the Learning Leadership Cadre in the Evansville-Vanderburgh School Corporation (the "**Cadre**"), the third largest district in the state. The Cadre provides an alternative pathway to teaching and school leadership in the district and was created for nontraditional candidates. Both strands reflect IDOE's desire to add flexibility to the ways teachers and administrators are licensed. Although this reform effort has faced opposition from those who favor traditional routes, Superintendent Bennett has joined the local superintendent in declaring a distaste for the status quo and a recognition that outstanding school leadership can be fostered in a variety of ways.

D-3: IDOE PRESS RELEASE- "NEW RULES WIL GIVE HOOSIER STUDENTS MORE KNOWLEDGEABLE TEACHERS"

For Immediate Release
Thursday, Jan. 7, 2010

Media Contact: Stephanie Sample
(317) 232-6616
ssample@doe.in.gov

New Rules Will Give Hoosier Students More Knowledgeable Teachers

Subject-Experts from Outside Education Welcome

The state board overseeing teacher licensing and preparation voted today to advance new teacher licensing regulations that ensure all new teachers will be experts in the subjects they teach and allow adults from other careers to more easily enter the teaching profession. These new regulations—called the Rules for Educator Preparation and Accountability or the REPA—aim to improve student achievement through better classroom instruction.

"We crafted these changes with the belief that students' academic success is determined, in large part, by the quality of their teachers," Superintendent of Public Instruction Dr. Tony Bennett said. "These new rules for licensing go further than ever before to make sure all Indiana's school children receive the high-quality instruction they deserve."

Members of the Advisory Board of the Division of Professional Standards, including Bennett, have been meeting since July, 2009, working with the Indiana Department of Education and education stakeholders statewide.

In addition to passing exams that test their knowledge, the new rules require those who teach grades 5-12 to earn baccalaureate degrees in the subjects they teach. This creates a better balance in teacher preparatory programs between coursework on how to teach and subject-specific training on what they will teach.

Dr. James Fraser, senior vice president for programs for the Woodrow Wilson National Fellowship Foundation and professor of History and Education at New York University, said, "The proposal to require every future secondary school teacher in Indiana to complete a full discipline-specific arts and sciences major makes very good sense. Indeed, such a move will bring Indiana up to a standard that is currently in place in many states across the United States. A solid major in the discipline to be taught is an essential minimum to truly knowing the content one aspires to teach."

Equally important, the rules take steps to address future teacher shortages and bring more knowledgeable adults into Indiana schools. The advisory board will have the authority to approve online and non-traditional teacher preparation programs in the future. Without these alternative licensing programs, it's unduly difficult for successful adults in other careers to enter the teaching profession. These new regulations allow for new pipelines to bring real world experts into Indiana classrooms.

Ariela Rozman from The New Teacher Project said, "We commend the IDOE for taking important steps to increase teacher and administrator quality—through an expansion of teacher and administrator pipelines, a focus on content knowledge which has been linked to student achievement, a requirement to measure the effectiveness of teacher preparation programs and a commitment to school-based professional development."

The new regulations go even further to improve teacher support and provide greater flexibility. Incoming teachers will work closely with school-level administrators to create targeted professional development plans to benefit student instruction. Current and future teachers will have more options to renew their licenses—options that won't require them to pay for college coursework. The new rules also make it easier for teachers to make their licenses more marketable; they can add subjects to their licenses by passing exams that test their knowledge.

"I'm incredibly proud of these teacher licensing changes," Bennett said. "They address a foundational aspect of my plan to reform education in Indiana by targeting instructional quality. This is a great victory, and it should energize all of us to work even harder to improve Indiana's schools in the year ahead."

The REPA regulations go into effect July 31, 2010. Students currently enrolled in teacher preparation programs will be transitioned into these new rules between now and August 31, 2013.

For more details on REPA and to view an updated summary of the rule, visit www.doe.in.gov/news/2009/07-July/REPA.html.

-30-

D-4: ALTERNATE ROUTES TO CERTIFICATION

Growing Teach For America (TFA) in Indiana

Teach for America's ("**TFA**") mission is to build the movement to eliminate educational inequity by enlisting our nation's most promising future leaders in the education profession. TFA recruits outstanding recent college graduates from all backgrounds and career interests to commit to teach for two years in urban and rural public schools. It provides the training and ongoing support necessary to help ensure the graduates' success as teachers in low-income communities. TFA targets shortage teaching areas in the communities it serves.

TFA is in its third year of activity in Indiana. IDOE began directly supporting TFA in 2009. TFA corps members work in the Gary area in northwest Indiana as well as in Indianapolis in central Indiana, due to the high populations of high-poverty and high-minority schools in those cities, as well as the unfortunate fact that too many of the schools in those communities are among the State's worst-performing 5%. The Gary TFA Corps is in its third year and has grown from thirteen teachers in 2007-08 to 21 teachers in 2009-10. The Indianapolis TFA corps is in its second year. It has grown from 48 teachers in 2008-09 to 95 teachers in 2009-10. TFA Corps members teach in local shortage areas.

Indiana had 702 graduating seniors apply to TFA in 2009. This was a 20% growth from 2008. Candidates are selected based on history of achievement, organizational and critical thinking skills, understanding of TFA's vision and respect for students from low income communities. Candidates with similar socioeconomic status or ethnicity as the students and/or with science and math content backgrounds are preferred.

TFA provides a two-year teacher support and professional development program. Members must complete 30 to 35 hours of independent work to familiarize themselves with program components, understand characteristics of exemplary teachers, and obtain content knowledge. During the summer training institute, members are required to attend sessions and teach TFA summer school programs. Program directors meet individually with their members throughout the year to assess progress, make professional development plans, and address issues. At the end of the school year, the director and corps member meet to assess and analyze student growth and to create a professional development plan for the summer.

TFA created a program for corps members to obtain an Indiana teaching license and a MAT degree. Currently, 98% of 2008 corps members and 94% of 2009 corps members are pursuing master's degrees. TFA corps members are considered Transition to Teaching candidates and are awarded the same level of certification as teachers who go through traditional teacher training programs.

Among the ancillary benefits of growing TFA includes the building of a corps of reform-minded alumni Indiana strongly hopes will remain active in Indiana education reform. Given that The Mind Trust and its Education Entrepreneur program is rooted in the state, Indiana also hopes that this alumni network can act as a sort of pipeline to the Entrepreneurship program. This can only serve to boost Indiana's aspiration to be a hotbed of education innovation.

Through *Fast Forward*, Indiana plans to double the number of teachers serving in TFA as a means to bring high-quality candidates into areas of teacher shortage in Indianapolis and Gary.

In Indianapolis, this would mean adding one hundred corps members per year instead of the current fifty per year. By 2012, the State would have 240 corps members in Indiana (two hundred in Indianapolis and forty in Gary).

Research has shown TFA's strong impact on student achievement. A recent study conducted by The Urban Institute found that TFA corps members were, on average, more effective than non-TFA teachers in all subject areas, especially in math and science. This was true even when TFA teachers were compared with experienced and fully certified teachers.

IDOE and the Indianapolis Teaching Fellows

The New Teacher Project sponsors the Indianapolis Teaching Fellows' ("**ITF"**) program. ITF's goal is to provide the students of Indianapolis with high quality teachers who are driven to do whatever it takes to make a positive impact on student achievement. The program seeks professionals and recent college graduates from all fields and backgrounds to bring their experience and knowledge into classrooms to close the achievement gap.

ITF is a highly selective program that targets exceptional candidates and trains them during an intensive summer institute to start teaching in critical shortage areas in the fall. In addition to summer training, all fellows take coursework at Marian University in Indianapolis in the evenings and on weekends - while teaching full-time during the day. Each earns a Master of Arts in Teaching and is fully certified. ITF teachers teach in critical shortage areas in Indianapolis.

The New Teacher Project's ITF program is in its third year of activity. IDOE began direct support of this program in 2009. It has grown from 42 teachers in 2007-08 to 127 teachers in 2009-10.

Indiana currently supports approximately 40 to 45 Indianapolis Teaching Fellows per year. IDOE seeks to more than double that number through *Fast Forward*. IDOE will support one hundred Fellows each year of the grant, along with the necessary training and management assistance from The New Teacher Project.

The New Teacher Project ("**TNTP**") has had a track record of success. The Louisiana Board of Regents awarded TNTP Level 1 and Level 2 performance levels, meaning TNTP-trained new teachers were more effective than, or comparable to, experienced teachers in raising student growth. These high ratings were true of TNTP teachers across the core content areas.

Expanding Woodrow Wilson Indiana Teaching Fellows

While TFA and TNTP are nationally recognized, Indiana has one additional program that makes the State unique in attracting new, high-quality individuals to the teaching profession, while simultaneously recognizing the fact that traditional education schools have an important role to play in reform of the teaching profession. The Woodrow Wilson Indiana Teaching Fellows program ("**Wilson**") was borne out of Arthur Levine's groundbreaking report, Educating School Teachers. He recommended the creation of a "Rhodes Scholars of Teaching" to address the low prestige the teaching profession holds for many top-flight candidates. He wanted to create a certification route to which the most elite students and professionals would proudly aspire.

Indiana was the first State to adopt this program and in the spring of 2009, the first class of fellows was announced. These fellows may be directly out of college, career switchers or even retirees, but they must each possess a solid background in a high-need STEM subject area such as math or chemistry. Once accepted, fellows work with program administrators from the Woodrow Wilson National Fellowship Foundation to choose one of four universities (Purdue University, Ball State University, University of Indianapolis, or Indiana University Purdue University at Indianapolis (IUPUI)) at which to receive a one-year clinical-style Master's degree in education. These universities were chosen several years ago and have worked constantly with Levine and his colleagues to reform the master's programs to fit Levine's vision of a more relevant and high-quality education degree in which students spend time learning their craft simultaneously in the college classroom and in the K-12 classroom. The program is expanding to include even deeper mentoring and induction for fellows as they enter their first years of teaching.

The Wilson Fellows program is in its first year, and though Indiana has strongly supported the program's development, IDOE also began direct support for Wilson in 2009. Fifty-nine fellows are currently participating in their fellowship year. Applications for the second cohort of fellows were due January 12, 2010.

Indiana will also enhance its support for the Wilson Fellows programs through *Fast Forward*. Specifically, RttT will allow Wilson to add one new university program to serve students in northwest Indiana, potentially including Gary, East Chicago and Hammond. As soon as the new university partner is chosen, Wilson staff will begin working with the institution to make all needed program changes, with the goal that the program will accept its first class of fellows in the summer or fall of 2011. These fellows will lead classrooms of their own beginning in the fall of 2012.

Through the process of reviewing applications and interviewing candidates for the inaugural class of fellows, Wilson staff discovered a number of exceptional candidates who possessed the skills to become great teachers but fell slightly short in pure math content knowledge. Through that learning process, and with the help of this grant, Indiana will establish a small "Math Immersion" program, allowing Wilson to select such candidates in the future and to increase their math skills and content knowledge to necessary levels before they enter their fellowship. This program will begin in the spring/summer of 2010, so the Math Immersion participants may begin fellowship classes with the rest of their cohort in the summer/fall of 2010.

D5: MULTIPLE PATHWAYS

IDOE is in the process of establishing multiple pathways for prospective principals, especially to lead the State's turnaround efforts. Details for each of these pathways are described below.

- **Indiana University Executive MBA for Turnaround Leadership:** A unique partnership between the Kelley School of Business, Indiana University Graduate School of Education, TFA, and IDOE to establish a pathway to school leadership.

  This will be a customized executive MBA program, consisting of forty-five credit hours and tailored to fit the specific needs of educational leaders. The Executive MBA for Education Leadership will be delivered using a blended model of in-residence and on-line instruction. It will take two years to complete and is designed for participants coming from outside the education environment (e.g. leaders in not-for-profit organizations, government organizations, and business). The first cohort will have at least 25 participants. Moreover, a student desiring an Ed.D. in educational leadership will be able to apply many of the MBA courses toward that degree.

- **Indianapolis Principals Fellowship:** A collaboration of Columbia Teachers College, TFA, and Indianapolis Public Schools ("**IPS**") to provide a fast-track path to school leadership within IPS.

  After a rigorous recruitment and selection process, a small cohort of TFA alumni or qualified candidates will be admitted to participate in Columbia's Summer Principal Academy, an intensive MBA-style program. After completing this program and a residency in IPS, obtaining principal licensure, and completing the requirements for a masters degree from Columbia, each graduate will commit to work as a school leader for a minimum of three years in IPS. The program aims to have twenty-five school leaders in place by 2016 and reach nearly 32% of IPS students.

- **The Charter School Entrepreneur Fellowship:** A charter school incubator to be launched by IDOE and The Mind Trust, an innovative education non-profit, to provide high quality new charter schools in high-need urban and rural districts across the state.

  The Mind Trust will recruit, select, and support fifty entrepreneurs over four years as they seek to launch transformative new charter schools across the state. The Fellowship will be fifteen months in duration. Each fellow will be awarded a $200,000 stipend to be distributed in fifteen equal monthly installments. In addition, The Mind Trust will assist each school leader in preparing an effective charter application, identifying potential facilities, recruiting board members, raising additional financial support, and successfully meeting other goals associated with the launch of successful new charter schools. New schools launched through the Fellowship may be stand-alone charters, replications of successful existing schools, or replications of successful schools run by Charter Management Organizations (CMOs).

- **Notre Dame Educational Leadership Program:** Supported by The Kern Family Foundation, an innovative approach to transformative education leadership that seeks to attract entrepreneurial individuals to redefine what is possible in a public school setting.

Scheduled to admit its first students in 2010, the Notre Dame Educational Leadership Program will provide executive education to aspiring principals to prepare them to lead schools of strong culture and high student achievement. This program will attract to the education sector a different kind of executive talent, people who desire the flexibility offered by a portable degree and who are eager to learn the universal skills of leaders in organizations of any type. The program will also model an innovative way to form results-oriented school leaders, providing them with the business skills needed to run high-achieving schools and to shape a positive, formative, and healthy organizational culture.

The program is an innovative partnership between the University of Notre Dame's Institute for Educational Initiatives and the Mendoza College Executive Education program. The program is funded by a grant from the Kern Family Foundation in Waukesha, Wisconsin and provides financial aid for students to enroll in Notre Dame's Executive MBA program in preparation for licensure as principals in district and charter schools.

- **Turnaround Leaders Academy:** U.S. Secretary of Education Arne Duncan stated, "Over the coming years, America needs to find 5,000 high-energy, hero principals to take over struggling schools." In response to his challenge, the Turnaround Leaders Academy will identify, recruit, train and develop transformational leaders who will focus on the challenge of turning around our State's chronically low-achieving schools.

  The Turnaround Leaders Academy will include coursework, case studies, and discussions to share information and practical experience in proven business and education turnaround strategies. Content areas will include assessment of personal leadership qualifications, skills to lead change, data analysis, decision-making, setting targets, and creating action plans. Participants will also study business management strategies, organizational behavior and communication, and restructuring and renewal of troubled organizations.

D-6: EMERGENCY PERMITS AND T2T PERMITS

School District Requesting 10 or More Emergency Permits	Total for 06-07	Total for 07-08	Total for 08-09
Indianapolis Public Schools	81	104	85
South Bend Community Sch Corp	76	61	74
IN Department of Correction	54	64	48
Fort Wayne Community Schools	50	42	44
School City of Hammond	46	47	66
Gary Community School Corp	43	41	51
School City of East Chicago	40	24	28
Northwest Indiana Spec Ed Coop	37	27	28
M S D Wayne Township	36	35	31
New Albany-Floyd Co Con Sch	35	34	28
Elkhart Community Schools	31	26	23
Blue River Special Ed Coop	26	17	10
M S D Warren Township	25	22	21
Greater Clark County Schools	23	14	-
Diocese of Fort Wayne	23	37	45
Logansport Community Sch Corp	22	20	14
M S D Perry Township	22	15	16
M S D Pike Township	22	15	12
Diocese of Lafayette Catholic Sch	21	10	11
Joint Ed Services IN Spec Ed	18	-	-
Monroe County Com Sch Corp	18	12	-
Evansville-Vanderburgh Sch Corp	18	15	19
DeKalb Co Eastern Com Sch Dist	16	13	15
Fayette County School Corp	16	-	-
Porter County Education Services	15	15	15
Richmond Community Schools	15	0	11
Diocese of Gary	15	15	-
West Clark Community Schools	14	-	-
Carmel Clay Schools	14	12	-
Kokomo-Center Twp Con Sch Corp	14	-	10
Michigan City Area Schools	14	16	14
School City of Mishawaka	14	16	24
East Allen County Schools	13	14	10
Goshen Community Schools	13	14	18
LaPorte Community School Corp	13	11	15
South Central Area Special Ed	13	-	-
Thea Bowman Leadership Academy	13	13	14
M S D Lawrence Township	12	-	-

Marion Community Schools	11	14	11
North Lawrence Com Schools	11	-	11
Lafayette School Corporation	11	-	-
Charles A Tindley Accelerated Schl	11	-	-
Gary Lighthouse Charter School	11	-	-
Sunman-Dearborn Com Sch Corp	10	-	10
East Noble School Corp	10	-	-
Diocese of Evansville	10	14	-
Anderson Community School Corp	-	12	11
Office of Catholic Education	-	12	10
West Clark Community Schools	-	11	-
Fayette County School Corp	-	11	-
Madison Area Ed Spec Srv Unit	-	11	11
East Noble School Corp	-	10	-
Monument Lighthouse Charter Sch	-	10	-
Penn-Harris-Madison Sch Corp	-	-	17
Lutheran Schools of Indiana	-	-	17
Huntington Co Com Sch Corp	-	-	13
Vigo County School Corp	-	-	13
Brownsburg Community Sch Corp	-	-	12
Mississinewa Community Sch Corp	-	-	10
Union Co/Clg Corner Joint Sch Dist	-	-	10

Requesting School / Corp.	T2T Permits Issued 06-07	T2T Permits Issued 07-08	T2T Permits Issued 08-09
Indianapolis Public Schools	1	-	85
School City of Hammond	3	3	1
South Ripley Com Sch Corp	3	-	-
Evansville-Vanderburgh Sch Corp	2	2	-
School Town of Highland	2	1	-
Signature School Inc	2	-	-
Fort Wayne Community Schools	1	1	-
School City of East Chicago	1	1	-
Elkhart Community Schools	1	2	-
Greater Clark County Schools	1	-	-
Diocese of Gary	1	1	-
Goshen Community Schools	1	-	-
M S D Lawrence Township	1	-	-
Vigo County School Corp	1	1	2
Decatur County Com Schools	1	-	1
Griffith Public Schools	1	1	-

Duneland School Corporation	1	-	-
Jac-Cen-Del Community Sch Corp	1	-	-
M S D Warren County	1	1	-
Valparaiso Community Schools	1	-	-
North Vermillion Com Sch Corp	1	-	-
South Bend Community Sch Corp	-	5	1
Diocese of Fort Wayne	-	2	-
Gary Lighthouse Charter School	-	2	-
Merrillville Community School	-	2	2
Herron Charter High School	-	2	-
Challenge Foundation Academy	-	2	1
SE Neighborhood Sch of Excellence	-	2	-
Gary Community School Corp	-	1	3
Marion Community Schools	-	1	-
Thea Bowman Leadership Academy	-	1	-
Diocese of Lafayette Catholic Sch	-	1	-
Richmond Community Schools	-	1	-
Franklin Community School Corp	-	1	3
Concord Community Schools	-	1	1
River Forest Community Sch Corp	-	1	-
Community Montessori Inc	-	1	-
Batesville Community Sch Corp	-	1	-
Nineveh-Hensley-Jackson United	-	1	-
Madison Consolidated Schools	-	1	-
Union Township School Corp	-	1	-
South Knox School Corp	-	1	-
School City of Hobart	-	1	1
Geist Montessori Academy	-	1	-
No Corp on license	-	1	2
Monument Lighthouse Charter Sch	-	-	3
M S D Pike Township	-	-	2
Sunman-Dearborn Com Sch Corp	-	-	1
Office of Catholic Education	-	-	1
West Clark Community Schools	-	-	1
East Porter County School Corp	-	-	1
Crawfordsville Com Schools	-	-	1
North Knox School Corp	-	-	1
Wabash City Schools	-	-	1
Garrett-Keyser-Butler Com	-	-	1
North Putnam Community Schools	-	-	1
Nettle Creek School Corp	-	-	1

21st Century Charter Sch of Gary	-	-	1
Western Boone Co Com Sch Dist	-	-	1
Attica Consolidated Sch Corp	-	-	1
Southwestern-Jefferson Co Con	-	-	1
Lake Ridge Schools	-	-	1
Clinton Central School Corp	-	-	1
White River Valley Sch Dist	-	-	1

TtT Detail

School Year	Number of Transition to Teaching Permits Issued by Content Area
2006 – 07	**AT LEAST ONE BUT LESS THAN FIVE ISSUED FOR** Industrial Technology; Drafting and Computer Aided Design; Deaf and Hard of Hearing; Computer Education; Director of Exceptional Needs; Social Studies; Science; Library Media; Math; Marketing; BLA; Technology Education; Adaptive P.E. **TEN ISSUED FOR** World Languages
2007 – 08	**AT LEAST ONE BUT LESS THAN FIVE ISSUED FOR** Building Trades Technology; Business Services and Technology; Deaf and Hard of Hearing; Blind and Low Vision; Health; BLA; School Counselor; Director of CTE; Elementary/Intermediate Generalist; **FIVE TO TEN ISSUED FOR** Social Studies; World Languages; Physical Education; Agriculture; Science; ENL; Fine Arts
2008 – 09	**AT LEAST ONE BUT LESS THAN FIVE ISSUED FOR** Trade and Industrial: Building Trades Technology; BLA; Marketing; ENL; Deaf and Hard of Hearing; FACS; **FIVE TO TEN ISSUED FOR** Social Studies; Journalism; **MORE THAN TEN ISSUED FOR EACH AREA AS FOLLOWS**: Computer Education (11); Director of CTE (13); School Counselor (15); Fine Arts (17); Blind and Low Vision (22); World Languages (30); Assistant Superintendent (38)

EP Detail

EP's Top Ten Content Areas	Total EP's Issued 2006-2007	Total EP's Issued 2007-2008	Total EP's Issued 2008-2009
Business and CTE Business/Marketing	53	44	55
Elementary Primary and Intermediate	120	137	166
Fine Arts (All Areas)	85	70	62
Language Arts and Reading	101	99	132
Mathematics	93	113	150
Mild and Intense Interventions	910	685	625
Principal and Assistant Principal	52	52	40
Science (All Areas)	171	195	184
Social Studies (All Areas)	75	74	104
World Languages	108	195	100

TOTALS

School Year	Total Schools Requesting EP's	Total Schools Requesting TtTP's	Total EP's Issued	Total TtTP's Issued
July 1, 2006 - June 30, 2007	312	21	2,074	30
July 1, 2007 - June 30, 2008	300	33	1,867	58
July 1, 2008 - April 24, 2009	324	30	1,973	173

D-7: SUMMARY OF GOALS, ACTIVITIES, RATIONALES, TIMELINES, AND RESPONSIBLE PARTIES

Goal 1: Fully implement student growth model					
No.	***Activity***	***Rationale***	***Due Date***	***Frequency***	***Responsible Parties***
1.1	Release aggregate school level growth data to schools and LEAs	Phase one: Allows LEAs to compare schools based on overall growth	10/26/2009	once	IDOE
1.2	Publicly release school growth data		12/1/2009	once	IDOE
1.3	Release disaggregated data to schools and LEAs (including grade level, gender, race, SES, ELL and SWD)	Phase two: Allows LEAs to compare schools based on growth of discrete subgroups	2/26/2010	once	IDOE
1.4	Publicly release disaggregated growth data		4/1/2010	1x/year	IDOE
1.5	Release student level growth data for spring 2009	Phase three: Allows LEAs to measure the change in student achievement for an individual student across multiple points in time	4/30/2010	once	IDOE
1.6	Release student level growth data for subsequent years		9/1/2010	1x/year	IDOE

Goal 2: Design and implement a statewide evaluation framework for teachers and principals					
No.	***Activity***	***Rationale***	***Due Date***	***Frequency***	***Responsible Parties***
2.1	Develop statewide teacher and principal evaluation framework	Current evaluation systems largely do not respond to the variations in the effectiveness of teachers and principals.	3/15/2010	once	IDOE, teachers, principals, school corps, ISTA, IFT
2.2	Develop data reporting tool for LEA reporting of evaluation results	Data collection purposes	4/1/2010	once	IDOE
2.3	Pilot statewide evaluation framework (esp. in schools identified for state sanctions)	Persistently low-achieving schools are often indifferent to instructional effectiveness at both the teacher and leader levels.	4/1/2010	once	IDOE
2.4	Collect completed evaluation results from pilot schools	Data collection purposes	7/1/2010	once	IDOE
2.5	Collect completed data reporting tool from pilot schools	Data collection purposes	7/1/2010	once	IDOE
2.6	Implement statewide evaluation framework (incl. professional development)	With student growth as a predominant factor (at least 51%), teachers and principals will for the first time have credible evidence of their performance.	9/1/2010	1x/year via training	IDOE, ESCs

Goal 3: Increase the frequency of teacher and principal evaluations					
No.	***Activity***	***Rationale***	***Due Date***	***Frequency***	***Responsible Parties***
3.1	Survey each LEA on the frequency of teacher and principal evaluations	Assess the current landscape of teacher and principal evaluation.	3/15/2010	1x/year via online survey	IDOE
3.2	Provide teachers and principals with student growth data for their students, classes, and schools	Valid and reliable student growth data will be the linchpin in driving teacher and principal effectiveness.	9/1/2010	1x/year	IDOE

Goal 4: Ensure that teacher and principal evaluation systems are used in decisions regarding professional development, compensation, promotion, retention, and removal					
No.	***Activity***	***Rationale***	***Due Date***	***Frequency***	***Responsible Parties***
4.1	Survey each LEA on how current systems are used regarding professional development, compensation, promotion, retention, and removal	Establishes performance measures for LEAs in implementing the common evaluation framework.	3/15/2010	1x/year via online survey	IDOE
4.2	Publicly report the use of results from evaluations systems by each LEA	Easy access and an understandable format will attract more attention to the local quality of school personnel.	7/1/2010	1x/year on IDOE website	IDOE
4.3	Support and intervene in LEAs that do not provide a meaningful distribution of teacher and principal effectiveness	Holds LEAs accountable for using the teacher and principal evaluation framework effectively.	9/30/2011	Ongoing	IDOE, ESCs
4.4	Publicly report the number and percentage of teachers and principals at each of the four performance ratings, for each LEA	Ensures credible distribution of teachers along multiple rating categories.	9/30/2011	1x/year on IDOE website	IDOE

D-8: COLORADO STATE COLLABORATION

COLORADO DEPARTMENT OF EDUCATION

201 East Colfax Avenue • Denver, Colorado 80203-1799
303.866.6600 • www.cde.state.co.us

Dwight D. Jones
Commissioner of Education

Robert K. Hammond
Deputy Commissioner

Kenneth R. Turner
Deputy Commissioner

December 7, 2009

Dr. Tony Bennett
Superintendent of Public Instruction
Indiana Department of Education
151 West Ohio Street
Indianapolis, Indiana 46204

Dear Superintendent Bennett,

Enclosed with this letter are two copies of the "State Collaboration: Longitudinal Data Systems, Data Visualization, Research and Development" Agreement for Execution that have been signed by Superintendent Tom Horne from the Arizona Department of Education. Please sign these documents and return one of them to me for final disposition. You may retain one fully executed copy for your files.

The return address is:

Richard Wenning
Associate Commissioner
Colorado Department of Education
201 E. Colfax Avenue
Denver, Colorado 80203

Sincerely,

Richard Wenning
Associate Commissioner

Att.(2)

cde Improving Academic Achievement

State Collaboration: Longitudinal Data Systems, Data Visualization, Research and Development

Agreement for Execution - Effective Date: November 2, 2009

The terms on these two pages outline the initial agreement for a collaborative effort to co-locate state longitudinal growth data sets for the purpose of creating common data visualizations that build upon the Colorado Growth Model.

1. ***Agreement to Participate***. Each Chief State School Officer signs on to the collaborative research and development effort and agrees to the participation of the Chief's designee, chief information officer, and state assessment director or director of research and evaluation.

2. ***Common Longitudinal Growth Measure***. Each state agrees to calculate growth percentiles in the same manner using R (programming language) to allow common cross-state comparisons and data visualization development related to normative and criterion-referenced growth.

3. ***Common Display Platform***. Each state agrees to use the Colorado Growth Model Version 1.0 or 1.5 display layer as an initial common visualization platform.

4. ***State Branding***. Each state may rebrand the display layer (e.g., "The Indiana Growth Model") and will provide mutually agreed upon attribution to Colorado and the National Center for the Improvement of Educational Assessment.

5. ***Common Development Environment***. To the extent practicable, each state agrees to load its longitudinal data set into a common, standardized data storage environment with appropriate security. This storage environment may be a cloud-based, virtual environment. The purpose is to permit common cross-state enhancement of the data visualization tools by the application developers. The application developers for Versions 1.5 and 2.0 will be the Colorado Department of Education, the National Center for the Improvement of Educational Assessment, and Universal Mind.

6. ***Enhancements to the Display Layer.*** Each state agrees to collaborate in the development of a common Version 2.0 of the Growth Model Display Layer. Such modifications will include, but not be limited to, postsecondary metrics, multi-year visualization and animation, inclusion of teacher identifiers, multiple axis selection, enhanced mapping functionality. Each state may fund the development of different enhancements of the display layer. For example, a state may fund development of displays incorporating unique teacher identifiers and interim assessment data. Enhancement priorities will be established through consensus among the participating states.

7. ***Modifications Shared***. Each state agrees to collaborate in, and contribute know-how and financial resources to, the development of modifications and enhancements, which will be shared freely among each participating state, subject to the Creative Commons Attribution-Non-Commercial-Share Alike 3.0 Public License (http://creativecommons.org/licenses/by-nc-sa/3.0legalcode).

State Collaboration: Longitudinal Data Systems, Data Visualization, Research and Development

8. ***Communications and Publicity***. Each state will collaborate on communications and publicity related to the collaborative effort, including an initial press release announcing the agreement.

9. ***Race to the Top and SLDS***. Pending each state's determination of the success and viability of the effort, each state agrees to include language in its Statewide Longitudinal Data Systems (SLDS) Grant and Race to the Top Proposal referencing the collaborative effort as part of the invitational priority related to enhancements of longitudinal data systems and include a budget item to support the collaborative.

10. ***Collaboration with CCSSO's LEARN Effort***. Pending each state's determination of the viability of the proposed CCSSO effort, each state agrees to associate this collaborative effort with the LEARN effort. In doing so, each state agrees to request that CCSSO make funding from the State Education Data Center available to maintain and enhance the initial collaboration, including funding for a common, standardized storage environment.

The undersigned parties agree to the terms outlined above.

Signature _____ Date 11-2-09
Dwight D. Jones, Commissioner, Colorado Department of Education

Signature _____ Date 12-15-09
Tony Bennett, Superintendent of Public Instruction, Indiana Department of Education

Signature _____ Date 11-18-09
Tom Horne, Superintendent, Arizona Department of Education

D-9: GOVERNOR'S TEACHING CORPS OF EXCELLENCE AND LEAD INDIANA

Governor's Teaching Corps of Excellence

The purpose of the *Governor's Teaching Corps* will be to attract and recruit highly effective teachers who have a clear interest in, and commitment to, excellence in teaching in the state's lowest-achieving schools. The Corps will be a prestigious program, with rigorous entrance requirements and a high degree of selectivity. The program will support 25 corps members each year (see Figure 1), though projections may vary based on the identified need in Indiana's schools (e.g. demographic and achievement data). The IDOE's Office of Educator Licensure and Development will administer the program with support from the policy staff, and the State Board of Education would, if necessary, promulgate rules to guide the administration of the program.

Forming the Corps will create a go-to pool of highly effective, expert teachers the state can deploy to schools with the greatest need. The program has strong potential to create a network of members and alumni who are committed to the challenges of high needs placements, as well as an alumni pool of educational leaders and potential school leaders from which to recruit. Alumni may serve both as support and recruitment teams for future corps members. Moreover, Superintendent Bennett will also create a "professional cabinet" of outstanding teachers, drawn in part from the Governor's Corps, to advise him and IDOE as needed. Further description of this cabinet can also be found in section (D)(2)(iv). Additional details of the Corps are provided below:

- Each corps member will receive a $30,000 fellowship (in addition to the regular annual salary) for three years of service in a high-poverty and/or high-minority school. Three years would be the minimum commitment; the fellowship would be a one-time disbursement, subject to partial or complete pay back if service is incomplete and/or unsatisfactory. Although start-up costs would initially be RttT funded, future fellowships would be sponsored by a combination of state, local (i.e. school districts within which corps placements occur) and philanthropic sources.

- Corps members will be selected based on proven effectiveness (i.e. student growth) in the classroom. IDOE will analyze the data to determine the distribution of ineffective, effective and highly effective teachers at all schools. The prospective pool of corps members will be drawn from the list of all teachers statewide who are highly effective. Teacher-linked student growth data will be available in spring 2010.

- Each corps member will receive a special letter from the Governor emphasizing the prestigious nature of the program and the urgency of the corps's purpose. This letter would follow the offer of acceptance into the corps.

Application to the *Governor's Teaching Corps* will be by invitation only. The admissions process will involve multiple rounds and a thorough review of the materials provided by each applicant. As part of the application, prospective corps members will be provided a list of schools that are (1) high-poverty and/or high-minority and (2) do not have equitable access to highly effective teachers. Each teacher applicant would provide his/her student growth data, an

indication of the school(s) from the list where s/he is willing to teach, and a list of subjects and grades for which s/he is licensed. IDOE will work with corps teachers to determine the best match for their talents and student need, including engaging them in various forms of "reach extension" to enable members to have positive impacts upon two or three times the number of students they would reach in a typical classroom. For example, corps members may choose to work in high-need schools with larger class sizes, reduce their non-instructional time to focus almost entirely on teaching, use technology and online learning to share top-notch lessons with students remotely, take on managerial or instructional authority over groups of others teachers, and/or serve in mentorship or training roles for other teachers in high-need schools. IDOE will work with LEAs where corps members are assigned to ensure local conditions permit these methods of reach extension. In the event the quantity of applicants exceeds space availability, preference will be given to teachers with the highest student growth data.

Figure 1

	2010-11	2011-12	2012-13	2013-14
Incoming corps members	25	25	25	25
Total corps	25	50	75	100
Students impacted	1775	3550	5325	7100

Lead Indiana

Turning around the lowest-achieving schools will also require highly effective principals. The challenge of ensuring an equitable distribution of great leaders is compounded by the fact that the lowest performing schools often face a disproportionately high rate of principal turnover. To change the trajectory for high-poverty and/or high-minority students, there must also be incentives and conditions that attract and retain talented and effective leaders who have a proven track record of creating change and raising performance in failing schools. IDOE will launch *Lead Indiana* to provide significant financial incentives for principals with a record of effective leadership skills to work in and lead Indiana's most distressed school environments.

The aim of the *Lead Indiana* program is three-fold:

- Elevate the level of recognition and respect for principals with a track record of raising student achievement.

- Inspire other great principals to take on the challenge of turning around the state's lowest achieving schools.

- Document and disseminate best practices and effective strategies for leading turnaround efforts in order to train future principals.

Lead Indiana will be a selective program, limited to highly effective principals with a proven track record of results. The program will support twenty outstanding principals each year (see Figure 2), though projections may vary based on the identified need in Indiana's schools (e.g. demographic and achievement data). The IDOE's Office of Educator Licensure and Development will administer the program with support from the policy staff, and the State Board of Education would, if necessary, promulgate rules to guide the administration of the program.

As *Lead Indiana* develops, the program may draw future recruits from the multiple leadership pathways being established across the state, as described in Section (D)(1)(ii). Additional details about *Lead Indiana* are highlighted below.

- Each principal will receive a one-time $75,000 fellowship (in addition to regular annual salary) for five years of service in a high-poverty and/or high-minority school. Five years would be the minimum commitment; the fellowship would be a one-time disbursement, subject to partial or complete pay back if service is incomplete and/or unsatisfactory. Although start up costs would initially be RttT funded, future fellowships would be sponsored by a combination of state, local (i.e. school districts within which placements occur) and philanthropic sources.

- Principals will be selected based on proven effectiveness (i.e. the three-pronged approach of NLNS – see Section (D)(2)(ii)). IDOE will analyze the data to determine the distribution of ineffective, effective and highly effective principals at all schools. The prospective pool of *Lead Indiana* principals will be drawn from the list of all principals statewide who are highly effective.

- *Lead Indiana* principals will be expected to reach clear annual performance targets, developed by IDOE, as well as interim benchmark measures. The academic performance of schools led by *Lead Indiana* principals will be assessed and re-evaluated annually, with student achievement and student growth results determining each principal's fellowship award. IDOE will work with participating LEAs to match principals to available positions based on need.

Figure 2

	2010-11	2011-12	2012-13	2013-14
Incoming number of *Lead Indiana* principals	20	20	20	20
Total number of *Lead Indiana* principals	20	40	60	80
Number of students impacted	8,948	17,896	26,844	35,792

D-10: EXPANDING THE REACH OF EFFECTIVE STEM TEACHERS

IDOE will work with Participating LEAs to identify and expand the reach of highly effective and effective STEM teachers. Specifically, IDOE will engage great STEM teachers in various forms of "reach extension" to enable them to have positive impacts on two or three times the number of students they would reach in a typical classroom. For example, qualified and effective STEM teachers may choose to work in high-need schools with larger class sizes, reduce their non-instructional time to focus almost entirely on teaching, use technology and online learning to share top-notch lessons with students remotely, take on managerial or instructional authority over groups of others teachers, and/or serve in mentorship or training roles for other teachers in high-need schools. IDOE will work with Participating LEAs to ensure local conditions permit these methods of reach extension for STEM.

For example, imagine a physics teacher who is getting remarkable results. Using local funding creatively, s/he is enabled to work with double the usual number of students and earn 50% more salary. Offering highly effective teachers larger classrooms would reduce the need for additional full time employees, the funding from which could be redirected to proportionally enhanced pay. This type of incentive is not only a sustainable approach to providing highly effective STEM teachers but may also address a common lament among educators and policymakers that many highly-qualified graduates and professionals in STEM fields would prefer to take a job other than teaching due to the higher salaries offered in many private-sector industries. One way to lure candidates who would have an interest in teaching, but who might need an incentive to make the leap into a teaching career, would be to provide the opportunity to significantly broaden both their impact and their earnings potential. Therefore, Indiana will promote programs designed to extend the reach of high-quality STEM teachers.

D11: *HEAD OF THE CLASS* TIMELINE

Timeline:

- IDOE will write and release an RFP to build the data system. The RFP will be released by July 1, 2010.
- RFP responses will be due to IDOE by August 1, 2010.
- By September 1, 2010, IDOE will select a vendor to build the data system.
- The chosen vendor will work with IDOE to build the necessary data system. Baseline data will be collected for all teachers who were graduated in 2008-09 and are teaching for their first year in 2009-10.
- By the late fall to early winter of 2010, based on student ISTEP+ results for 2009-10 and the growth data for those current first-year teachers, aggregate student growth data will be reported for all teacher education programs and institutions.
- By the Fall of 2011, student growth data will be available for a full two-year cohort of new teachers from each program to compare to all experienced teachers (based on ISTEP+/growth results from the Spring 2009 and 2010 assessments).
- During the 2010-11 and 2011-12 school years, only program data on student growth will be shared with the public; more severe sanctions would not begin until the 2012-13 school year. At the same time, IDOE will work with any programs failing to show student gains in an effort to make immediate improvements.
- If gains are still not shown by the summer/fall of 2012, a program would be subject to consequences, including having its accreditation revoked.

D-12: PROFESSIONAL DEVELOPMENT AND EDUCATOR SUPPORT PROGRAMS

Professional Development for Common Core Standards

Section (B)(3) lays out Indiana's goal of disseminating information to teachers and administrators regarding the new, Common Core standards.

IDOE will release an RFP by August 31, 2010 to solicit proposals to provide professional development to school and district administrators who work in participating LEAs. IDOE will choose a provider by October 2010. This professional development must fully familiarize all administrators with the Common Core standards that are new and different from Indiana's current standards. The training must also provide administrators tools and materials with which they can go back to their districts and adequately train teachers to fully understand and implement the Common Core. All non-participating LEAs will be allowed to use their own funds to send administrators to the training as well. IDOE will work with the State Board of Education to create a rule requiring a certain percentage of participation in Common Core professional development by teachers and administrators as a prerequisite for school accreditation.

Professional Development for Teacher and Principal Evaluations

Section (D)(2) outlines Indiana's goals for a common teacher and principal evaluation framework. Teachers and principals must be fairly and rigorously evaluated with meaningful differentiation from excellent to good, good to fair, and fair to poor.

Each participating LEA will have a window of time within which to develop a local teacher and principal evaluation. Participating LEAs will be required to submit their evaluation tools for approval. IDOE will review these tools for alignment with the framework set out in Section (D)(2) and the appendix for (D)(2). If an LEA wishes to use the State-developed model evaluation tool, it will receive automatic approval.

IDOE will issue an RFP and contract with a professional development provider to develop a training course in how to properly utilize the State's model teacher and principal evaluation framework. The contractor will also be required to build, in cooperation with IDOE, a process by which an administrator or teacher leader may become certified as an evaluation expert. Simply completing the training course will not be sufficient. Evaluation experts will be required to demonstrate competency and mastery (e.g. via examinations, experience with the tools and other benchmarks) prior to being certified.

Creating a system for certifying Indiana's educators as evaluation experts formalizes the evaluation process. It also offers Indiana's certified experts clear operational guidelines on which they can rely in the event of challenges to individual teacher and principal evaluations, ultimately easing the arbitration process.

IDOE will release an RFP by May 31, 2010, requesting experienced providers to bid to provide professional development to all administrators in the State on how to effectively utilize the common evaluation framework. IDOE will require RFP responses to be submitted by June 2010. IDOE will look for potential providers who can easily provide professional development in numerous locations across the State as well as provide repeat sessions and technical assistance via online postings and group discussions. IDOE will choose a vendor by July 2010. Statewide

trainings will begin early in the 2010-11 school year and continue at least through the first semester of the year.

Professional Development for STEM Teachers

Advancing the training of STEM teachers is critical for Indiana to remain economically competitive and graduate students with 21st century skills. Indiana's I-STEM Resource Network will play a crucial role in helping to drive the State's efforts on this front.

Indiana's I-STEM Resource Network, led by Purdue University, is a partnership among universities, State government, the State's major STEM businesses and the life sciences industries cluster organization. I-STEM focuses on STEM teaching, learning, applied research, assessment, evaluation, community partnerships and continued development of its network. Since its inception in 2006, I-STEM has facilitated collaboration among university partners across the State and has developed a series of courses focused on deep understanding of mathematics content and pedagogy for grades 4 through 9 in algebra, geometry, number theory, and statistics. To date, 628 teachers have completed at least one of these courses. Additionally, trials are under way to conduct courses for lower elementary and high school math.

The evaluation of I-STEM courses indicates that teachers generally improve their mathematical knowledge for teaching by half of a standard deviation and that the teachers show a statistically significant change in mathematics teaching. Based on the past success of this model, IDOE will partner with I-STEM and its university partners to increase access to these courses as well as to create new course sets in other STEM disciplines (i.e. beyond the successful middle grades math courses). Indiana will require and support STEM teachers from its bottom 5% schools in completing these courses and will strongly encourage the elementary courses for teachers who teach in schools that feed into bottom 5% schools. IDOE will encourage other participating LEAs to utilize their shares of RttT funds to send their teachers to these courses. Teachers who find they are less than effective based on student growth data will also be strongly encouraged to participate in this training. Teachers from other non-participating LEAs are welcome to take part in these courses as well as long as space remains available.

Each course will accommodate 20 to 25 teachers. Given the number of university faculty and K-12 master teachers across the state who have been involved in the creation and teaching of the courses to date, I-STEM has the capacity to meet the projected needs identified by the State. Because I-STEM has already conducted these courses over two years, it is well positioned to know which instructors and training providers are excellent and which are not. IDOE will partner with I-STEM to run this professional development given its expertise in this area.

Beginning in Summer 2010, I-STEM will conduct its successful math professional development courses in sites across the State. These courses may take place over the summer or in evenings during the school year based on local demand and needs.

Professional Development for Project Lead The Way

Project Lead The Way ("**PLTW"**), is a pre-engineering program for middle and high schools and is described in depth in Appendix (E)(2)-3. PLTW increases teacher effectiveness by providing effective, data-informed professional development. Since 1997, PLTW has trained approximately 10,000 teachers to impart its curricula to students.

PLTW provides each of its middle and high schools with the following:

- a standards-based pre-engineering and pre-biomedical sciences curriculum that utilizes research-based instructional methods;
- intensive, course-specific, initial and ongoing professional development for teachers;
- conferences for counselors;
- a nationwide support network of schools, colleges and universities; and
- an online network for teachers and administrators for support and assistance.

The cost for PLTW training is approximately $2,300 per teacher. Purdue University currently trains approximately 180 teachers a year in PLTW's pre-engineering curriculum through an intensive two-week experience that simulates the student perspective. Indiana University-Purdue University at Indianapolis ("**IUPUI**") provides training for teachers in the PLTW Biomedical Sciences curriculum. Both trainings follow the same model.

Through *Fast Forward,* IDOE will significantly increase the number of PLTW trained teachers and the availability of statewide training opportunities. IDOE will cover the cost of the training (for up to one hundred teachers) with the State share of RttT funding. Participating LEAs will be required to utilize their portion of RttT or other funding sources to cover any incidental expenses.

Professional Development for School Model or Program Implementation in Turnaround

Section (E)(2) enumerates a number of potential school models that turnaround schools might consider adopting: New Tech High School, Early College High School, Diploma Plus, International Baccalaureate and the Asia Society. Additionally, programs that can be adopted as part of transforming a turnaround school include Project Lead The Way and Summer Advantage. Descriptions of all of these programs can be found in Appendix E-5. To implement these programs with fidelity, IDOE will support professional development to ensure that teachers and administrators are properly trained in implementing these models. Professional development costs would be associated with transitioning to any of these models. Indiana proposes to assist any school utilizing these models or programs for a school turnaround by paying for start-up professional development costs, up to $2500 per teacher, and to be negotiated with each individual school, based on its unique needs. A maximum of five hundred teachers may attend any of these professional development programs in a given year; IDOE will set aside a maximum of $1,250,000 for support. Timelines for this professional development will, by necessity, happen at differing times in different years. Participating LEAs that want to adopt one of these school models but are not in turnaround status may do so with their portion of RttT funds.

Professional Development for Members of the *Governor's Teaching Corps of Excellence*

Indiana's concept and plan to form a *Governor's Teaching Corps of Excellence* is described in Section (D)(3)(i). To support these outstanding teachers and foster group camaraderie, Indiana will bring corps members together on a regular basis to provide ongoing professional development. IDOE will issue an RFP seeking an experienced provider of professional development to provide robust content focused on data, instruction, and improving student achievement. Corps members will be surveyed throughout the school year and consulted in the formulation of specific topics addressed each year. The selected provider will also facilitate communication among corps members during the three-year commitment so they can work

together to solve common issues they face in their schools. Annual investment for this work will be approximately $1000 per Corps member. This is a minor investment compared to the enormous impact Indiana's most highly effective teachers will have on student achievement in high-poverty and high-minority schools. The professional development will begin in Summer 2011.

Professional Development for *Lead Indiana* principals

Also described in Section (D)(3)(i), outstanding leaders selected for the *Lead Indiana* program will be given opportunities to regularly convene in order to troubleshoot and share best practices. Professional development for *Lead Indiana* principals will aim to build an esprit de corps among school leaders. The costs, logistics, and timeline for this ongoing training and support will be similar to that outlined for the *Governor's Teaching Corps* as described above.

Common Planning Time for Teachers

Common planning time ("**CPT**") is a form of professional development that provides teachers the opportunity to collaborate with other teachers, either within the same grade or the same content area. It is also known in many cases as job-embedded professional development and is used in schools to form professional learning communities ("**PLC**"). CPT is a vehicle for developing curriculum and lesson plans, sharing best practices, troubleshooting student behaviors, and using data to drive decisions. It should foster new ideas and strategies for improving student achievement. Collaboration allows teachers to be active in their own professional development and provides a sense of community among teachers who may otherwise not interact very often. Indiana will promote job-embedded professional development or CPT in more schools to foster the development of professional learning communities.

CPT is most effective when led by teachers, as this allows them to directly address issues within their classrooms. It should occur daily if possible and for at least thirty minutes a day. Issues addressed should relate to student achievement and goals for school improvement. Administrators should not direct CPT but should supervise or coach the program in an effort to create an environment of support. CPT can be implemented in several different ways. Some schools build in CPT during the day or lunch hour. Others schedule CPT before or after school or on Saturdays. If extra time is added to the school day to accommodate CPT, this allows administrators and teachers to be creative in ways that can benefit students during that time (e.g. physical education, art, music). The size of teams can also be determined at the school level. An administrator should consider the needs of students, number of students per grade, distribution of teaching responsibilities, and size and design of the school building. Smaller teams tend to be the most effective, as they can apply more focus on particular students or issues. CPT can also be a tool for assessing student achievement and teacher growth. Teachers should work together to create assessment standards and analyze data to make decisions on instructional strategies. This teamwork can provide cohesion in assessing and eliminate confusion in data.

CPT needs to be structured to keep teachers focused and productive. This can be accomplished by providing agendas for meetings, selecting certain focus topics and providing any materials prior to the meeting. When CPT is coupled with an overall professional learning community, strong professional development and general organizational improvements, it can be a factor in student achievement and teacher satisfaction.

In 1995, a research study done by Valerie Lee, Julia Smith, and Robert Croninger looked at 820 schools nationwide. The study found that schools with CPT showed academic gains in math, science, history and reading. There were also drops in the achievement gaps between students with different backgrounds. Staff in these schools reported higher satisfaction and an increased level of responsibility to improve student achievement. A 2003 study by Center for Prevention Research and Development and Michigan Middle Start Schools showed schools with high levels of CPT saw increases in achievement scores of at least 60%, particularly for low income students. Schools with high levels (meaning four or more days per week; thirty minutes a day) of CPT had staff engaging more frequently in team activities than those schools with low or no CPT. This engagement increased the longer a team worked together. Teachers with high levels of CPT integrate instruction more often than those without it. Also, teachers involved in CPT have higher levels of teacher cooperation and camaraderie. Studies have shown that students of teachers with CPT had more positive perceptions of their school climate.

CPT or job-embedded professional development is one of the key features of TAP, a comprehensive school reform system that provides opportunities for career advancement, professional growth, instructionally focused accountability and competitive compensation for educators. Participating LEAs that are drawn to the concept of CPT should strongly consider adopting TAP.

Teacher Support and Compensation Model – TAP

The Teacher Advancement Program ("**TAP**") is a comprehensive school reform system that provides powerful opportunities for career advancement, professional growth, instructionally focused accountability and competitive compensation for educators. TAP's goal is to draw more talented people to the teaching profession – and keep them there – by making it more attractive and rewarding to be a teacher. TAP provides teachers with the following:

- Powerful opportunities for professional growth through potential roles as a mentor or master teacher, earning a higher salary, but still working in the classroom;
- The ability to collaborate with peers during the school day through job-embedded professional development led by master teachers who help teachers analyze student needs and identify strategies for student learning;
- Fair and rigorous classroom evaluations at multiple points throughout the year to improve teaching skills; and
- Financial awards based upon the average of the scores earned on multiple evaluations of classroom teaching, as well as classroom-level achievement growth and school-level achievement growth.

Indiana will encourage participating LEAs to investigate TAP and determine whether they are interested in adopting it. TAP has been presented to educators across the State when a TAP representative spoke about the program at the November 2007 session of the Indiana Education Roundtable. Additionally, Indiana schools and districts are being given the opportunity to visit a TAP school in action. IDOE will pay for travel expenses for a principal and key teacher leaders to visit a TAP school, with funding provided by a generous grant from the National Governors Association. Those visits have been heavily advertised to school and district leaders and will take place in the early months of 2010.

Interested LEAs will be invited to apply for funds to support implementation of TAP in some or all of their schools. IDOE will support schools by paying for the start-up costs associated with transitioning to the model. Through RttT, Indiana seeks to begin a pilot program for schools to implement TAP. Throughout the course of the grant, Indiana will pay for up to 25 schools in participating LEAs to begin TAP in their schools. Training in the TAP model for teachers and leaders will be included in the covered start-up costs.

IDOE and TAP will support schools through the transition to adopting and implementing the TAP model. Throughout 2010, IDOE will encourage participating LEAs to consider adopting TAP. IDOE and TAP will provide assistance with this process and will arrange travel for educators to visit TAP schools. IDOE will work with TAP to create a flexible, rolling admission process to allow LEAs to apply to implement TAP on an aggressive but realistic timeline based on local circumstances.

The New Teacher Center

Through *Fast Forward*, IDOE will establish teacher induction programs to increase teacher retention and foster higher student achievement. The model Indiana will use is the New Teacher Center ("**NTC**"). NTC is used around the country to provide a comprehensive induction program including a guided mentor program and professional development. The key goals of the program are to increase teacher retention, increase student achievement and teacher effectiveness, and create learning communities within schools to promote a district's goals and values. The program will match each beginning teacher in the State's lowest 5% of schools with an experienced mentor to guide him/her through the first two years leading a classroom. Other participating LEAs would be welcome to utilize a portion of their RttT funds to participate in NTC induction as well.

NTC essential activities include the following:

- Continuous professional development and training for administrators and mentors
- Frequent meetings and observations between mentors and beginning teachers
- Individualized Learning Plans and portfolios to track progress
- Frequent data collection and analyses

Prior to the implementation of the program, administrators and program coordinators will attend the NTC's four-day Induction Institute, which familiarizes attendees with the NTC program and provides strategies in assessing the needs of beginning teachers, creating effective growth environments, and building leadership among administrators and mentor teachers. Schools will then interview and choose mentor teachers, who are required to participate in the program for three years, giving up their teaching assignments for that time. Each year of their mentorship, they will attend NTC's Mentor Academy Series. First year sessions provide strategies for coaching teachers and assessing teacher and student growth. Second year sessions focus on how to address various learning styles and other teaching and learning issues. The third year focuses on assessing and improving skills and the program. Beginning teachers will participate in the program during their first two years of teaching, and the focus of each year mirrors the mentors' first and second year training.

Mentors will work with up to fifteen beginning teachers. At the beginning of the program, each mentee will create an Individual Learning Plan, which sets goals and benchmarks and is used as

an accountability tool for both the mentor and teacher. Each teacher and mentor must also keep a portfolio of student work, collected data and lesson plans to document progress. Mentors will regularly observe mentees during instructional time and will meet with their beginning teachers individually to review instructional strategies and provide feedback. Mentors will also meet with program coordinators and administrators to ensure they are meeting the program's requirements and incorporating the school's goals into their instruction. Professional development will be intertwined into the program. NTC provides Teacher Induction Modules, which are typically one day programs focusing on instructional practices and the role of administrators. Online professional development provides the same type of instruction and also includes guidance in how to use the NTC's Formative Assessment System.

Indiana will formally partner with NTC in the spring of 2010. LEAs with schools in the bottom 5% will work with NTC to hire mentors and send them to mandatory training in time that they may begin working with new teachers at the start of the 2010-11 school year. At that point, the natural progression of NTC's program as described above will commence.

D13: EFFECTIVENESS OF SUPPORTS

Analysis of the Effectiveness of STEM Professional Development

The I-STEM Resource Network will work with the Support and Accountability Office, detailed in Section (A)(2)(i)(a), to access data for teachers who have attended one and two years of STEM professional development. Beginning in fall of 2010, once teacher and student data are fully linked and the growth model implemented, I-STEM will be able to utilize growth data to determine whether STEM and PLTW training, described in (D)(5)(i), result in teachers who produce greater student learning gains. I-STEM will develop a database that tracks hours of teacher professional development and the facilitator of each piece of professional development and then links these data points to student performance and student growth.

PLTW includes End of Course Assessments for all of its high school courses that allow for college credit opportunities. The online assessment provides teachers immediate feedback on standards mastery. Next year, the evaluation will include a pre-post component.

Analysis of the Effectiveness of Common Standards PD

The Support and Accountability Office will work with the contractor for these services to ensure that the training results in the effective use of standards, by teachers and leaders, to design and plan instruction. Success will primarily be measured by increased student achievement and closing of the achievement gap in classrooms and schools of training participants. This analysis will also include pre- and post-testing results, online assessments for those who do not directly receive the training, and feedback surveys. If the training falls short of the goals in any area, the contractor must work with the Support and Accountability Office to address the deficiencies to IDOE's satisfaction.

Analysis of the Effectiveness of Evaluation Tool PD

The Support and Accountability Office will work with the contractor for these services to ensure that the training results in more effective teaching, stronger leadership, and increased student achievement. This analysis will include examination of a sample of completed tools, aggregated evaluation results to ensure a credible distribution of ratings, and the provision of clear and targeted areas for improvement. This analysis will also require examination of student achievement and growth data at schools that use the framework, as well as teacher and leader effectiveness data to determine whether students are achieving at higher levels. If the training is found to fall short of the goals, the contractor will work with Support and Accountability Office to address deficiencies to IDOE's satisfaction.

Analysis of the Effectiveness of PD for School Model or Program Implementation in Turnaround

The Support and Accountability Office will work with the school managers and PD providers for each model or program to closely track student achievement in each turnaround school based on ISTEP+ data as well as available interim measures. Graduation data, where appropriate, will also be examined. Because a number of models and programs are available, the Support and Accountability Office will work with the school managers and PD providers to determine the precise measures that will be used, as well as the exact timelines for examining such information and data. Appropriate measures will be developed based on which models and programs are actually chosen. As a result, specific performance measures are not presently included in the chart at the end of this section.

Analysis of the Effectiveness of PD for Members of the *Governor's Teaching Corps of Excellence*

The Support and Accountability Office will work with the chosen PD provider to examine annually the effectiveness of corps members as well as retention and satisfaction levels. Any declines will necessitate a reevaluation of the program, how corps members are selected, and the quality of support they receive.

Analysis of the Effectiveness of PD for *Lead Indiana* principals

The Support and Accountability Office will work with the selected provider to regularly review the efficacy of *Lead Indiana* principals and the link between programmatic supports and participant success. Any declines will lead to a reevaluation of the program, the selection of principals, and the quality of ongoing support.

Analysis of the Effectiveness of TAP

The Support and Accountability Office will work with TAP's managing organization, NIET, to ensure that TAP schools implement the TAP model with fidelity and that all TAP schools realize strong student achievement gains. TAP schools that do not achieve will be scrutinized and receive individualized interventions (e.g. review of the support provided to teachers). NIET may also revoke a school's authority to call itself a TAP school if the school is not properly implementing the program. These analyses will occur on a regular basis upon adoption of the TAP model.

Analysis of the Effectiveness of the New Teacher Center

Two types of data will be used to measure and evaluate the success of the program: beginning teacher retention rates and student achievement (as measured by ISTEP+ and student growth). Each district participating in the program will track beginning teacher retention data starting in 2010-11. The Support and Accountability Office will work with participating LEAs and the New Teacher Center to ensure that retention rates and student achievement of participating teachers meet or exceed the levels of those not participating in induction programs. The Support and Accountability Office will be able to report results of these measures in the fall of 2011, when retention data for beginning teachers becomes available.

E-1: *FORT WAYNE JOURNAL GAZETTE* ARTICLE

10 schools to get FWCS overhaul

Key goals: Improved test scores, more federal cash

Kelly Soderlund
The Journal Gazette

School categories

Fort Wayne Community Schools is proposing changes at 10 schools initially, and all schools eventually, in order to apply for federal stimulus money. Schools could be placed in one of three categories.

Turnaround schools. Sanctions include replacing the principal and replacing the staff. Staff members can reapply for their jobs but only half will be allowed to remain at the same school.

Transformation schools. Sanctions include replacing longtime principals. New principals could get reprieves, FWCS spokeswoman Krista Stockman said. Staff members who have not improved student outcomes also will be removed.

Target schools. The fate of the principal will be determined based on multiple data sources. The staff will remain but will be required to undergo extra training.

Fort Wayne Community Schools officials have proposed changes to 10 schools that could include replacing principals and the teaching staff in an effort to secure millions of dollars in federal funds.

The announced plan is an opening round of an overhaul targeting student improvement, but the district's remaining 43 schools will follow, Superintendent Wendy Robinson said at the board meeting Monday night.

District officials are taking advantage of an opportunity to draft their own plan for how to improve schools before the state or federal government steps in with its own instructions, Robinson said.

"This is probably one of the most critical conversations we're going to have as a board and one of the most critical conversations we're going to have in public education since No Child Left Behind," Robinson said.

The initial 10 schools are North Side and South Side high schools; Kekionga, Miami and Northwood middle schools; and Abbett, Adams, Bloomingdale, Fairfield and South Wayne elementary schools. The staffs from each of those buildings were told about the plans during meetings Monday afternoon.

"All you have to do is look at their data," Robinson said. "These are the schools where we believe if we do intensive work ...we can make a difference."

District officials are tying their plans to the state's application for President Obama's Race to the Top competition, which will make $4.3 billion available for schools willing to take a serious look at improving and tie teacher evaluations to student achievement.

Indiana stands to win $150 million to $250 million that it can dole out to school districts that sign up.

But the promise of money that could assist the district in a time of a decreased budget and possibly more cuts to come is only half the reason district officials are seeking the change, Robinson said. The other half is to improve student achievement.

"Even if there isn't a single dollar amount with any of this, it's the right thing to do," board President Mark GiaQuinta said. "The way I see it, getting the money is an added bonus to doing it."

Administrators and the Fort Wayne Education Association, the teachers' union, will begin bargaining a contract that will include these changes in January. The initial 10 schools will see changes for the 2010-11 school year, and the remaining schools in the district will be overhauled for the 2011-12 school year.

The 10 schools will fall into one of three categories that officials have not yet assigned. Each category has a varying degree of staffing changes. Staff members who are removed from a specific building could be placed in a different school to give them a fresh start, Robinson said. Some might not be asked to come back at all.

Union officials Steve Brace and Al Jacquay say they are on board with trying to obtain the federal money but said it will be difficult to draft a plan.

"We're going to butt heads over some of this stuff, but I think in the end we have a commitment to try and find a way to make this work," Brace said during a meeting Monday afternoon with The Journal Gazette's editorial board. "There's two roads here. In one road you take it and you get a chance to put together a plan that will work for you and you get money to help fund it. The other one you wait until somebody else gives you that plan … and you don't have any money or little money to make it work. It's scary."

District officials are hoping their plan will also address concerns about North Side and South Side raised by a private educational consultant, Cambridge Education LLC, hired to audit 23 struggling schools statewide. As of now, the state is not releasing the Cambridge reports to individual districts and instead will meet with each school in February to go over the results and have district officials sign an agreement to improve, Robinson said.

Changes made at North Side and South Side will trickle down to the other four high schools because they are all connected in the district's high school reinvention plan, Robinson said.

Officials are encouraging students to take responsibility for their own learning, parents to educate themselves about the process and staff to commit to the needed changes.

"It's very, very frustrating for teachers in all our buildings but especially these buildings that are going to hear it today. To hear basically you're not doing good enough because they're working their hearts out," Brace said. "This is their career. This is their livelihood. They have a passion for it."

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http://www.journalgazette.net/apps/pbcs.dll/article?AID=/20091215/LOCAL04/312159993/1002/LOCAL&template=printart

E-2: Summary of Goals, Activities, Rationales, Timelines, and Responsible Parties

Goal 1: Identify the lowest 5% of schools in the state					
No.	***Activity***	***Rationale***	***Due Date***	***Frequency***	***Responsible Parties***
1.1	Adopt A-F state accountability system revisions	Using a letter scale of A through F to evaluate schools would dramatically increase the transparency of how schools are evaluated and attract more attention to the local quality of education.	6/1/2010	Once	IDOE, State Board, Focus Groups
1.2	Collect and analyze individual school performance data	Identification of the lowest-achieving schools.	9/1/2009	Yearly	IDOE
1.3	Implement meaningful public reporting on key evaluation indicators	Results must be easily understood and readily accessible (e.g. via IDOE website).	7/1/2010	Yearly	IDOE
1.4	Continuously raise the bar for each grade designation	Once a majority of schools achieve A and B grades, the bar must be raised to drive continuous improvement.	9/1/2012	As needed (likely every 2-3 years)	IDOE, State Board

Goal 2: Boldly intervene in schools that have deep, chronic organizational failure					
No.	***Activity***	***Rationale***	***Due Date***	***Frequency***	***Responsible Parties***
2.1	Issue RFP for a turnaround management organization	Creation of a competitive marketplace to spur innovation and increase accountability.	6/15/2010	As needed	IDOE
2.2	Close dysfunctional schools and place students in higher performing ones	Research across multiple sectors shows that in organizations that persistently fail, incremental change strategies have little chance of success.	8/1/2011	Yearly	IDOE
2.3	Negotiate contract terms with each turnaround management organization	Ensuring that turnaround management organizations have full autonomy and sufficient resources will help foster their success in turnaround schools.	8/15/2010	Yearly	IDOE
2.4	Hold turnaround management organizations accountable under performance-based contracts	IDOE will hold turnaround management organizations accountable for turnaround success in the schools they oversee and/or manage.	N/A	Ongoing	IDOE
2.5	Incubate high-performing new school providers	Although the focus will not be limited to the lowest-achieving schools, the incubator may provide an additional source/pipeline for turnaround leadership.	9/1/2010	Yearly	IDOE, The Mind Trust
2.6	Identify, recruit and select new leadership (e.g. Turnaround Leaders Academy)	Establishes a deep bench of “transformational leaders” with specialized skills and competencies necessary to engender dramatic change.	7/1/2010	Yearly	IDOE, Leadership Partners

Goal 3: Support LEAs in turning schools before they are taken over by the state					
No.	***Activity***	***Rationale***	***Due Date***	***Frequency***	***Responsible Parties***
3.1	Engage school districts of the lowest-achieving schools in executing MOU	Ensures that key decision makers are involved and that school districts understand (1) the steps that must be taken to avoid takeover and (2) the urgency of engendering rapid improvement.	2/28/2010	Yearly	IDOE, State Board, Local School Boards & Districts
3.2	Monitor and support struggling schools	Assesses progress: have schools taken the steps necessary and are they on track to meet timelines?	N/A	Ongoing	IDOE
3.3	Establish Exemplary Leaders Program	Recognizes top-notch principals and provides a stipend for participating and/or leading technical assistance reviews of struggling schools.	7/1/2010	Yearly	IDOE
3.4	Provide technical assistance to struggling schools	Leads to comprehensive improvement planning (e.g. goal setting and benchmarks) to provide course correction for troubled schools.	11/30/2009	Yearly	IDOE, Technical Assistance Partner, Community Partners
3.5	Shine a spotlight on high performing high poverty (HPHP) schools	Links struggling schools to exemplars – to stimulate significant improvement and build a network of resources that does not require direct state involvement.	9/1/2010	Yearly	IDOE

E-3: BOTTOM 5% OF SCHOOLS

Indiana Department of Education

Bottom 5% (State and Federal Combined)

December 2009

#	Corp#	Corp	Sch#	School	HS	PL 221	Federal	Notes
1	9545	21st Century Charter Sch of Gary	4164	21st Century Charter Sch of Gary				
2	5275	Anderson Community Sch Corp	4945	Anderson High School	HS		Tier 2	
3	5275	Anderson Community Sch Corp	5049	Highland Senior High School	HS			
4	9685	Aspire Charter Academy	4043	Aspire Charter Academy				
5	9300	Campagna Academy Charter School	1534	Campagna Academy Charter School	HS		Tier 1	
6	6340	Cannelton City Schools	6733	Cannelton Elem & High School	HS			
7	2650	Caston School Corporation	2159	Caston Jr-Sr High Sch	HS			
8	1300	Crawford Co Com Sch Corp	1059	Crawford County Jr-Sr HS	HS			
9	9525	Decatur Discovery Academy	5186	Decatur Discovery Academy	HS	Year 3		
10	0255	East Allen County Schools	0305	Meadowbrook Elementary School			Tier 1	
11	0255	East Allen County Schools	0279	Paul Harding High School	HS	Year 4	Tier 2	
12	0255	East Allen County Schools	0303	Prince Chapman Academy		Year 4		
13	0255	East Allen County Schools	0317	Village Elementary School		Year 4	Tier 1	
14	2305	Elkhart Community Schools	1769	Beck Elementary School				
15	2305	Elkhart Community Schools	1749	Elkhart Central High School	HS			
16	2305	Elkhart Community Schools	1750	Elkhart Memorial High School	HS			
17	7995	Evansville Vanderburgh Sch Corp	8237	Benjamin Bosse High School	HS			
18	7995	Evansville Vanderburgh Sch Corp	8277	Christa McAuliffe Alt Mid Sch				
19	7995	Evansville Vanderburgh Sch Corp	8301	Glenwood Middle School		Year 2	Tier 1	
20	7995	Evansville Vanderburgh Sch Corp	8353	Howard Roosa Elementary Sch				
21	7995	Evansville Vanderburgh Sch Corp	8281	John M Culver Elem Sch			Tier 1	
22	7995	Evansville Vanderburgh Sch Corp	8339	McGary Middle School				
23	7995	Evansville Vanderburgh Sch Corp	8396	The Learning Center				
24	0235	Fort Wayne Community Schools	0141	Adams Elementary School				
25	0235	Fort Wayne Community Schools	0149	Bloomingdale Elementary Sch			Tier 1	
26	0235	Fort Wayne Community Schools	0137	Merle J Abbett Elementary Sch			Tier 1	
27	0235	Fort Wayne Community Schools	0101	North Side High School	HS	Year 4		
28	0235	Fort Wayne Community Schools	0105	South Side High School	HS	Year 4		
29	0235	Fort Wayne Community Schools	0177	Wayne High School	HS		Tier 2	
30	9480	Fountain Square Academy	5864	Fountain Square Academy	HS			
31	4690	Gary Community School Corp	4061	Beveridge Elementary School		Year 2	Tier 1	
32	4690	Gary Community School Corp	4155	Glen Park Acad for Excel in Lrn				
33	4690	Gary Community School Corp	4029	Lew Wallace High School	HS			
34	4690	Gary Community School Corp	4033	Theodore Roosevelt High Sch	HS	Year 4		
35	4690	Gary Community School Corp	4163	West Side High School	HS			
36	9655	Hope Academy	5292	Hope Academy	HS			
37	9815	Imagine Indiana Life Sci Aca-East	5673	Imagine Indiana Life Sci Aca-East				
38	9820	Imagine Schools on Broadway	0255	Imagine Schools on Broadway				
39	9670	Indianapolis Metropolitan High Sch	5664	Indianapolis Metropolitan High Sch	HS			
40	5385	Indianapolis Public Schools	5465	Arlington Community High School	HS	Year 4		
41	5385	Indianapolis Public Schools	5623	Arlington Woods Elementary School				
42	5385	Indianapolis Public Schools	5469	Arsenal Technical High School	HS	Year 3		
43	5385	Indianapolis Public Schools	5477	Broad Ripple High School	HS	Year 4		
44	5385	Indianapolis Public Schools	5554	Brookside School 54				
45	5385	Indianapolis Public Schools	5572	Emma Donnan Middle School		Year 4	Tier 1	
46	5385	Indianapolis Public Schools	5481	Emmerich Manual High School	HS	Year 4		
47	5385	Indianapolis Public Schools	5593	George H Fisher School 93				
48	5385	Indianapolis Public Schools	5643	George Washington Community	HS	Year 4	Tier 1	
49	5385	Indianapolis Public Schools	5601	H L Harshman Middle School		Year 3	Tier 1	
50	5385	Indianapolis Public Schools	5494	John Marshall Community High Sch	HS	Year 3	Tier 1	

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Indiana Department of Education

Bottom 5% (State and Federal Combined)

December 2009

#	Corp#	Corp	Sch#	School	HS	PL 221	Federal	Notes
51	5385	Indianapolis Public Schools	5569	Joyce Kilmer School 69				
52	5385	Indianapolis Public Schools	5631	Key Learning Community				
53	5385	Indianapolis Public Schools	5670	New Horizons Alternative School		Year 2		
54	5385	Indianapolis Public Schools	5483	Northwest High School	HS	Year 4		
55	5385	Indianapolis Public Schools	5921	Pacers Academy		Year 3	Tier 1	
56	5385	Indianapolis Public Schools	5639	Thomas Carr Howe Comm High School	HS	Year 4		
57	5385	Indianapolis Public Schools	5608	Willard J Gambold Middle School		Year 4		
58	9400	KIPP Indpls College Preparatory	5860	KIPP Indpls College Preparatory				
59	7855	Lafayette School Corporation	8069	Jefferson High School	HS			
60	4650	Lake Ridge Schools	3869	Calumet High School	HS	Year 4		
61	4650	Lake Ridge Schools	3893	Lake Ridge Middle School		Year 3		
62	4680	Lake Station Community Schools	3965	Thomas A Edison Jr-Sr HS	HS			
63	2865	Marion Community Schools	2351	Marion High School	HS	Year 4		
64	5740	Monroe County Com Sch Corp	6228	Aurora Alternative School	HS			
65	9590	Monument Lighthouse Charter Schl	5282	Monument Lighthouse Charter Schl				
66	5350	MSD Pike Township	5357	Central Elementary School		Year 4	Tier 1	
67	8050	MSD Wabash County Schools	8673	White's Jr-Sr High School	HS			
68	5360	MSD Warren Township	5387	The Renaissance School	HS	Year 2	Tier 2	
69	1970	Muncie Community Schools	1485	Longfellow Elementary School				
70	3445	New Castle Community Sch Corp	2825	New Castle Chrysler High Sch	HS			
71	8515	North White School Corp	9135	North White High School	HS			
72	9325	Options Charter School - Carmel	2524	Options Charter School - Carmel	HS			
73	9640	Options Charter School Noblesville	2551	Options Charter School Noblesville	HS			
74	4590	River Forest Community Sch Corp	3791	River Forest Jr-Sr High School	HS			
75	4670	School City of East Chicago	3924	East Chicago Central High Sch	HS	Year 4	Tier 2	
76	4670	School City of East Chicago	3963	Joseph L Block Jr High School		Year 3	Tier 1	
77	4710	School City of Hammond	4413	Donald E Gavit Mdl/High Sch	HS	Year 3		
78	4710	School City of Hammond	4411	George Rogers Clark Md/HS	HS			
79	4710	School City of Hammond	4415	Hammond High School	HS	Year 4		
80	4710	School City of Hammond	4417	Morton Senior High School	HS	Year 4		
81	7200	School City of Mishawaka	7461	Mishawaka High School	HS		Tier 2	
82	7205	South Bend Community Sch Corp	7505	Adams High School	HS			
83	7205	South Bend Community Sch Corp	7534	Bendix School	HS	Year 4	Tier 2	
84	7205	South Bend Community Sch Corp	7533	Coquillard Primary Center		Year 3		
85	7205	South Bend Community Sch Corp	7545	Harrison Primary Center				
86	7205	South Bend Community Sch Corp	7561	Lincoln Primary Center				
87	7205	South Bend Community Sch Corp	7573	Madison Primary Center				
88	7205	South Bend Community Sch Corp	7577	Marquette Montessori Academy		Year 2		
89	7205	South Bend Community Sch Corp	7593	Muessel Primary Center				
90	7205	South Bend Community Sch Corp	7597	Navarre Intermediate Center		Year 2		
91	7205	South Bend Community Sch Corp	7513	Riley High School	HS	Year 4		
92	7205	South Bend Community Sch Corp	7517	Washington High School	HS	Year 4		
93	9825	The Indianapolis Project School	5848	The Indianapolis Project School				
94	9350	Timothy L Johnson Academy	1539	Timothy L Johnson Academy				
95	8030	Vigo County School Corp	8611	Booker T Washington High School	HS		Tier 2	
96	8030	Vigo County School Corp	8612	McLean Education Center (Alt)	HS		Tier 2	

E-4: THE CHARTER SCHOOL ENTREPRENEUR FELLOWSHIP

IDOE and a partner will launch a charter school incubator to accelerate the number of high-quality new charter schools, particularly in high-need urban and rural districts across the state. The lasting effect of RttT will be the sustained innovation and the cultivation of a generation of education leaders and entrepreneurs. IDOE will follow the State's formalized procurement process for potential partners but will look to replicate the model described below offered by The Mind Trust.

Mission – The Mind Trust is dedicated to dramatically improving public education for underserved students by empowering education entrepreneurs to develop or expand transformative education initiatives in Indiana. To achieve this mission, The Mind Trust has two strategies: (1) a nationally unique *Education Entrepreneur Fellowship* that serves as an incubator for transformative education ventures; and (2) a *Venture Fund* to recruit to Indianapolis the nation's most successful, established, entrepreneurial education ventures.

History – The Mind Trust, a 501(c)(3) non-profit entity, was founded in 2006. While building Indianapolis's award-winning charter schools initiative, former Mayor Bart Peterson and The Mind Trust President and Chief Executive Officer David Harris saw firsthand the value education entrepreneurs can bring to students in Indianapolis. They founded The Mind Trust to make Indianapolis one of the most attractive places in the country for talented entrepreneurs to launch new education ventures and to expand those that have been successful elsewhere.

The *Charter School Entrepreneur Fellowship* would be modeled after The Mind Trust's signature program, the *Education Entrepreneur Fellowship*, which provides ambitious entrepreneurs with an unprecedented opportunity to turn their break-the-mold ideas into successful new initiatives that will transform public education, particularly in underserved communities.

The *Education Entrepreneur Fellowship* has captured the attention of talented innovators from across the world. For the 2010 Fellowship cohort, The Mind Trust received 405 applications from people in 44 states and 20 countries. The caliber and diversity of the applicant pool is exceptional and includes, among other, the following: employees of Microsoft, Google, Proctor & Gamble, and Target; public servants who have worked in the White House, U.S. Army and Marine Corps, U.S. Departments of Education, Justice, State, and Interior, and NASA; leaders from education non-profits such as KIPP, Teach For America, The New Teacher Project, and Education Pioneers; and staff of media organizations including Dateline NBC, CBS, Nickelodeon, Comedy Central, and China Daily.

As part of the *Charter School Entrepreneur Fellowship*, a provider will recruit, select, and support fifty entrepreneurs over four years as they seek to launch transformative new charter schools across Indiana. The Fellowship will be fifteen months in duration. Each fellow will be awarded a $200,000 stipend to be distributed in fifteen equal monthly installments. In addition, our partner will assist each school leader in preparing an effective charter application, identifying potential facilities, recruiting board members, raising additional financial support, and successfully meeting other key goals essential to the launch of successful new charter schools.

E-5: POTENTIAL MODELS FOR SCHOOL TURNAROUND

Indiana will look to the following exemplars in developing a two-pronged approach to revive the state's lowest-achieving schools.

- Asia Society fulfills states standards by incorporating global content to show how core subjects can be related to the global society. The model provides opportunities to learn several languages, study abroad and travel internationally.

- Chicago International Charter School is a multi-site charter school that plays a crucial role in improving disadvantaged communities across Chicago. The Chicago International network serves as a model for education management organizations.

- Diploma Plus targets students who are traditionally underserved and failing in traditional high schools. Traditional grade levels are replaced by "phases." There are three phases (Foundation, Presentation and Plus) and students advance to the next phase only when they have mastered specific skills.

- Early College High School provides students with the opportunity to earn an associate's degree or up to two years of college credit before graduating high school. Students benefit from reduced or free tuition costs while attending ECHS.

- Excel Academy Charter School is a Boston public charter school that models the importance of clear differentiation of roles in order to focus the talent of each individual on what he/she does best.

- International Baccalaureate is a diploma program that incorporates internationally focused curriculum with state standards. To achieve an IB diploma, a student must complete activities in three areas: Extended Essay, Theory of Knowledge and Creativity, Action and Service.

- New Tech High School helps students develop 21st Century skills through project-based learning. Textbooks are replaced by laptops and lecturing is replaced by group projects geared towards finding solutions to real world problems.

- Project Lead the Way ("**PLTW**") offers applied learning opportunities for both students and teachers and prepares students, including females and underrepresented minorities, for advanced study in STEM fields. PLTW is an innovative curriculum for middle and high school students; it addresses the nation's need for a more tech-savvy workforce—and students that are better prepared to study science and math in college.

- Summer Advantage USA is a national non-profit organization that provides research-based summer learning programs focused on producing academic gains for children in grades K-8. The program includes literacy, mathematics and enrichment curricula that help Summer Advantage USA scholars achieve mastery of core academic subjects, while developing them as citizens and leaders.

F-1: INDIANA CHARTER APPLICATION DENIAL AND SCHOOL CLOSURE TOTALS

Year	Total Apps	Approved	Denied	Reason(s) for Denial	Closed/Non-Renewal	Reason(s) for Closure/Non-Renewal
2005	18	7	11	Academic; organizational viability; financial; incomplete; other	1	Closed due to financial, academic, governance and enrollment issues
2006	35	10	25	Academic; organizational viability; financial; incomplete; other	0	
2007	13	3	10	Academic; organizational viability; financial; incomplete; other	0	
2008	18	7	11	Academic; organizational viability; financial; incomplete; other	0	
2009	27	5 (& 5 pending)	17	Academic; organizational viability; financial; incomplete; other	0	
TOTAL:	*111*	*32 (& 5 pending)*	*74*	Academic; organizational viability; financial; incomplete; other	*1*	

DETAILED LISTING OF CHARTER DENIALS AND CLOSURES

Year	School	Approved	Denied	Reason(s) for Denial	Closed/Non-Renewal	Reason(s) for Closure/Non-Renewal
2005	21st Century at Gary	X		n/a		
2005	Evansville Community Charter School		X	Incomplete		
2005	Evansville Community Charter School		X	Incomplete		
2005	Gary School of Trade and Technology		X	Incomplete		
2005	Indiana Connections Academy		X	Incomplete		
2005	KIPP Lead College Prep Charter School	X		n/a		
2005	Paramount Academic School of Scholars, Inc.		X	Incomplete		
2005	The Web Education Academy		X	Incomplete		
2005	West Gary Lighthouse	X		n/a		
2005	Flanner House Higher Learning Center	n/a	n/a	n/a	X	Fnancial; academic; governance; enrollment
2005	Academy of Greater Works		X	Academic; organizational viability; financial		
2005	Lighting the Way Preparatory Academy		X	academic; financial		
2005	21st Century Evening Academy at Fall Creek		X	Other		
2005	21st Century Evening Academy at Fountain Square		X	Other		
2005	Herron High School	X		n/a		
2005	Challenge Foundation Academy	X		n/a		
2005	Hope Academy (Recovery High School at Fairbanks)	X		n/a		
2005	Mandela Leadership Academy	X		n/a		
2006	Anderson Preparatory Academy	X		n/a		
2006	Aspire Charter Academy		X	Incomplete		
2006	Aspire Charter Academy	X		n/a		

Year	School	Approved	Denied	Reason(s) for Denial	Closed/Non-Renewal	Reason(s) for Closure/Non-Renewal
2006	Beacon Junior/Senior High School		X	Incomplete		
2006	Beacon Junior/Senior High School		X	Incomplete		
2006	Central Indiana Military Academy		X	Incomplete		
2006	Central Leadership Academy		X	Incomplete		
2006	Dr. Robert H. Faulkner Academy		X	Incomplete		
2006	Dr. Robert H. Faulkner Academy		X	Incomplete		
2006	Education Innovations		X	Incomplete		
2006	Gary School of Trade and Technology		X	Incomplete		
2006	Gary School of Trade and Technology		X	Incomplete		
2006	Geist Montessori Academy	X		n/a		
2006	Imagine MASTer Academy		X	Incomplete		
2006	Imagine MASTer Academy	X		n/a		
2006	Indiana Connections Academy		X	Incomplete		
2006	Indiana Math and Science Academy Charter School - Gary Campus		X	Incomplete		
2006	Indiana Math and Science Academy Charter School - Indianapolis Campus	X		n/a		
2006	Indiana Science and Humanities Academy		X	Incomplete		
2006	Indiana Virtual Business and Entrepreneurial Academy		X	Incomplete		
2006	Indiana Virtual Charter School		X	Incomplete		
2006	International Academy of Fort Wayne		X	Incomplete		
2006	Legacy Charter Academy		X	Incomplete		
2006	Options - Noblesville	X		n/a		
2006	Options Charter School	X		n/a		
2006	Renaissance Academy	X		n/a		

Year	School	Approved	Denied	Reason(s) for Denial	Closed/Non-Renewal	Reason(s) for Closure/Non-Renewal
2006	Academy of Greater Works		X	Academic; organizational viability; financial; other		
2006	Achievement Charter Academy		X	Other		
2006	Honor Charter Academy	X		n/a		
2006	Imagine Academy - Far East Side		X	Academic; organizational viability; financial		
2006	Imagine Academy at Meridian Kessler		X	Academic; organizational viability; financial		
2006	Lighting the Way Preparatory Academy		X	Academic; organizational viability; financial		
2006	Paramount Academy School of Scholars		X	Academic; organizational viability; financial		
2006	Lawrence Early College High School	X		n/a		
2006	Montessori Academy Preparatory School		X	Financial; other		
2007	Education Innovations		X	Incomplete		
2007	Indiana Virtual Business and Entrepreneurial Academy		X	Incomplete		
2007	Anderson Prep Academy	X		n/a		
2007	Beacon Junior/Senior High School		X	Incomplete		
2007	Dr. Robert H. Faulkner Academy	X		n/a		
2007	Gary School of Trade and Technology		X	Incomplete		
2007	Indiana iCademy		X	Incomplete		
2007	Imagine -Indiana Life Sciences Academy East Indy		X	Incomplete		
2007	Imagine schools on Broadway		X	Incomplete		
2007	Hoosier Academy-Indy		X	Incomplete		
2007	Hoosier Academy-Muncie		X	Incomplete		

School	Approved	Denied	Reason(s) for Denial	Closed/Non-Renewal	Reason(s) for Closure/Non-Renewal
The Indianapolis Project School -P3		X	Incomplete		
Imagine-Indiana Life Sciences Academy Central-Indianapolis		X	Incomplete		
Imagine MASTer Academy Project III-Fort Wayne		X	Incomplete		
The Learning to Learn School		x	Organizational viability; financial		
The Indianapolis Project School	X		n/a		
Paramount Academy School of Scholars		X	Financial		
Indiana High School Academy (fall submission)		X	Academic		
Indiana High School Academy (spring submission)		X	Academic		
Alexandria Academy at Cunningham		X	Incomplete		
The Bloomington Project School	X		n/a		
Buck Creek Academy		X	Incomplete		
Cardinal Academy of Muncie, IN	X		n/a		
Hammond Academy for Science and Technology		X	Incomplete		
Imagine Bridge Academy	X		n/a		
Imagine Indiana Life Sciences Academy Central	X		n/a		
Imagine Indiana Life Sciences Academy West	X		n/a		
The International School of Columbus		X	Incomplete		
The International School of Columbus	X		n/a		
Star Academy of Fort Wayne		X	Incomplete		
Star Academy of Indiana		X	Incomplete		
Xavier School of Excellance	X		n/a		

Year	School	Approved	Denied	Reason(s) for Denial	Closed/Non-Renewal	Reason(s) for Closure/Non-Renewal
2008	ACE Academy (fall application round)		X	Financial		
2008	Spectrum Environmental Academy (Spring Submission)		X	Academic; organizational viability; financial		
2008	Spectrum Environmental Academy (Fall Submission)			Organizational viability; financial		
2009	Alexandria Academy at Cunningham		X	Incomplete		
2009	Discovery Charter School	X		n/a		
2009	Hammond Academy for Science and Technology	X		n/a		
2009	Indianapolis Military College Preparatory Academy		X	Incomplete		
2009	Lakeside Charter Academy, Inc.	Approval Pending		n/a		
2009	Muncie Military Academy		X	Incomplete		
2009	Options New Tech High - Anderson		X	Incomplete		
2009	Paddock View Alternative School		X	Incomplete		
2009	Rock Creek Community Academy		X	Incomplete		
2009	Rock Creek Community Academy	Approval Pending		n/a		
2009	Star Academy of Fort Wayne		X	Incomplete		
2009	Star Academy of Fort Wayne		X	Incomplete		
2009	Summit Academy		X	Incomplete		
2009	Bridge to Hope Charter School		X	Academic; organizational viability; financial		
2009	Community Rule School of Reading		X	academic; financial		
2009	FAIT Academy		X	Organizational viability; financial		
2009	Haughville Liberal Arts Academy		X	Academic; organizational viability; financial		
2009	Indiana Math and Science Academy East	Approval Pending		n/a		

Year	School	Approved	Denied	Reason(s) for Denial	Closed/Non-Renewal	Reason(s) for Closure/Non-Renewal
2009	Indianapolis Spectrum Academy		X	academic; financial		
2009	Outlook University		X	Academic; organizational viability; financial		
2009	ADI Inc School #1	Approval Pending		n/a		
2009	ADI Inc School #2	Approval Pending		n/a		
2009	Irvington Community School	X		n/a		
2009	Paramount School of Excellence: A Challenge Foundation Academy	X		n/a		
2009	Indiana Aerospace Jr./Sr. High School	X		n/a		
2009	Hoosier Academy @ Fort Wayne		X	Withdrew application		
2009	Hoosier Academy @ Fort Wayne		X	Withdrew application		

F-2: CHARTER PROPOSAL SUBMISSION PROCESS

The Indianapolis Mayor's Office

The Indianapolis Mayor's Office has developed guidelines whereby the application process begins with a letter of intent, followed by the submission of a prospectus focused on the school's mission, curriculum and instructional methods; budget; and organization and governance of the organizing group. If the prospectus is approved, a full application is submitted. This stage may include meetings with school organizers. After submission of the full application, an internal review is conducted, followed by a review by the Mayor's Charter School Advisory Board. Once the Mayor reviews the board-approved applications and makes a decision as to approval, the Indianapolis City-County Council must ratify the Mayor's decision (IC 20-24-3-5). Proposed schools that are not approved may be asked to re-apply at a later date.

The Indianapolis Mayor's Office has been recognized at least twice nationally for its authorization procedures. In 2006, the Mayor's charter school office received the Innovations in American Government award from the Harvard Kennedy School of Government, which seeks to recognize and promote creativity in the public sector. In 2007, the Mayor's charter authorization process was featured in a publication from ED's Office of Innovation and Improvement entitled Innovations in Education: Supporting Charter School Excellence through Quality Authorizing. It was one of eight charter school authorizers across the nation recognized as an exemplar in charter school sponsoring. Additionally, the authorizing process and staff which administers it has remained equally strong under both Democrat and Republican mayoral administrations.

Ball State University

Ball State University has also developed additional charter school approval guidelines. Its chartering process starts with a preliminary proposal. A team reviews the proposal and conducts informal interviews and information sessions. If the preliminary proposal is approved, the applicant is invited to submit a proposal, which will be reviewed by the Office of Charter Schools. With the submission of a proposal comes additional informal meetings and information sessions. If the proposal is accepted, a public meeting must be held in the county in which the charter school will be located, in accordance with IC 20-24-3-14. The decision to charter is based on the quality of the proposal and comments from the public.

F-3: INCENTIVE FOR NEW STATEWIDE UNIVERSITY AUTHORIZER

IDOE will conduct conversations with universities early in 2010 to gauge interest and support levels among university leadership, as well as capacity to support ongoing authorization and accountability activities. IDOE aims to award the incentive by July 2010 so a new authorizing university can establish its authorizing office and begin authorizing schools by 2011. IDOE will work with the chosen university to design an exceptional authorizing and accountability process, replicating best practices from our current authorizers.

Finally, IDOE will set aside up to $250,000 to assist current authorizers in improving their authorizing and monitoring processes. Current authorizers will be invited to submit an application to IDOE outlining their perceived shortcomings and how they would utilize funds to improve their operations. IDOE will then work with applicants to determine a work plan to address any problems and timelines for fixing them.

F-4: INDIANA'S CHARTER SCHOOL ACCOUNTABILITY POLICIES

Beyond addressing how the school will demonstrate evidence of improvement in assessment results and progress toward reaching the organizer's goals, the charter agreement must describe the method to be used to monitor the charter school's compliance with applicable laws and to monitor educational performance (IC 20-24-4-1). Additionally, the state charter school law establishes the authorizer as the entity that holds the charter school accountable for compliance with applicable laws and the terms of the charter (IC 20-24-9-3).

IDOE plays an important role in the accountability process and determines whether each charter school makes Adequate Yearly Progress ("**AYP**") each year. A school that receives Title I funds and does not make AYP for two or more consecutive years is subject to an increasing series of interventions under NCLB, designed to help the school improve academic performance.

The decision to grant, renew, or revoke a charter is currently the sole province of the school's authorizer. The grounds for which an authorizer may revoke or refuse to renew a charter must be specified in the written charter agreement (IC 20-24-4-1).

The state charter school law requires an authorizer to review a charter school's performance at least once every five years. The state's two largest sponsors have instituted comprehensive

annual reviews and transparent accountability systems. While the processes utilized by the authorizers are different, each authorizer evaluates each charter school's academic and organizational performance. Components of the programs include assessment of academic effectiveness, including state standardized tests and the NWEA Measures of Academic Progress ("**MAP**") test, which is administered twice a year by each school; expert site visits; financial audits; and student, staff, and parent satisfaction surveys.

F-5: EQUITABLE FUNDING

Special Education

Once a charter school has opened, IDOE's Division of Exceptional Learners (where special education is housed) contacts the director of the cooperative the school has decided to join, or the director of special education services at the school, to obtain the number of special education students in each exceptionality area at the school. This is not the December 1 count (that count is conducted separately), but it is necessary to assure charter schools receive the commensurate share of federal special education funds.

Using the information generated from this count, the formula set forth in statute is applied, and a funding amount is determined for each school. If the December 1 count demonstrates that a charter school is serving more special education students than were counted at the beginning of the year, the school's funding can be adjusted upward. The amount from the school's initial December 1 count becomes the school's base of funding for future years, taking the place of the December 1, 1998 count required by statute. The amount of funding a charter school receives includes discretionary funds, the school census count, and the number of free and reduced lunch eligible students the school serves.

In the eight years charter schools have been operating in Indiana, this "early count" method has proven to be an effective and efficient way to ensure that new and expanding charter schools receive their commensurate share of federal funds for special education students.

Title I

IDOE Title I staff worked closely with ED to develop a funding process for new and expanding charter schools. When a new charter school opens, it receives a letter from the Title I office

describing the program; explaining the criteria for funding eligibility, including collecting free and reduced price lunch applications; and surveying the school for the number of student it will serve and the schools those the students previously attended. Eligibility for Title I is determined based on the results of this survey.

Once eligibility is determined, representatives of the school meet with a Title I consultant specifically designated for charter schools as well as a member of the Title I fiscal staff. In this meeting the participants review Title I program requirements and the Title I application. When the application is submitted and approved, the charter school will begin to receive Title I funds. The Title I consultant for charter schools remains available to assist schools with program and reporting requirements, filing amendments to the application, and disseminating best practices for Title I programs.

Title III

Superintendents and charter school leaders are informed annually, in July, of the opportunity to apply for Title III: Language Instruction for LEP and Immigrant Students. Information is disseminated to new and existing charter schools through regular mail, email, and IDOE's superintendents' email list ("**SAMS**"). School corporations and charter schools with at least 34 LEP students are eligible to receive funds individually. Schools are also informed that they may apply as a consortium if the schools and corporations applying serve the minimum number of students.

Other Federal Funds

Charter schools are informed of other federal grant opportunities by IDOE. For formula grant programs, the CSP project office works with the fiscal managers at IDOE to keep them informed of new and expanding charter schools. The fiscal managers for programs such as Safe and Drug Free Schools and Communities use estimated enrollment numbers or counts taken just after school starts to include new and expanding schools in the formula. Schools are informed of the availability of funds through regular mail, email, and SAMS or PAMS (the superintendents & principals' listserv). In addition, the CSP project manager frequently reinforces the initial notification with follow-up communication.

Competitive grant programs, such as Reading First, conduct outreach and training for grant opportunities for charter schools and other applicants. The Reading First program includes CSP project staff on its management team and invites CSP project staff to participate in application review and revision for charter schools.

F-6: INDIANA'S CHARTER SCHOOLS FACILITIES INCENTIVE GRANT PROGRAM

IDOE's application for the facilities incentive grants program reflects Indiana's priority of helping the neediest students in the neediest areas of the state and demonstrates Indiana's support of effective programs. IDOE will not provide facilities funds to charter schools that have served students for more than five years and have not made AYP for two consecutive years. A school that has served students for fewer than five years will be eligible for funding regardless of AYP status while the school is establishing an academic track record. Funds from the facilities incentive grant will flow first to charter middle schools and high schools located within school corporations that have middle schools or high schools that have not made AYP and where 70% or more students enrolled in the respective charter school qualify for free or reduced price meals.

IDOE is implementing a facilities funding program for the first time in the 2009-2010 grant year. It is IDOE's goal to have funds start flowing to the schools early in 2010.

F-7: MORE INFORMATION ABOUT NETWORK MODEL SCHOOLS

Communities in Indiana have begun to embrace and implement network model schools that require a deviation from traditional seat time requirements. The State Board intends to facilitate the educational entrepreneurship and innovation reflected in the implementation of such network model schools in Indiana communities, with the expectation that the model is defined clearly, implemented properly and followed rigorously. The Board has determined that the Diploma Plus High Schools and New Tech High Schools network models may be implemented without the need for a waiver of any kind, and the Board intends to expand this list.

F-8: DROPOUT PREVENTION GRANT

Although schools selected to receive the Dropout Prevention Grant have very low graduation rates, IDOE is confident that the efforts at these schools will help decrease overall graduation rate gaps in Indiana. This is in part due to the rigorous award criteria outlined in the following paragraph.

Applicants for the grants were asked to (1) identify the need for the intervention, (2) demonstrate alignment to other corporation initiatives, (3) identify the evidence-based dropout prevention programming that will be used and (4) leverage community resources. They were expected to provide baseline data and achieve identified targets for the following outcome measures: increasing graduation rates, reducing dropout rates and dropout/undetermined percentages, reducing expulsions, and increasing the number of students on track for graduation. Grants were made to the School City of Mishawaka and Richmond Community Schools. A description of each of these districts follows in the subsequent paragraphs.

School City of Mishawaka: Most students who fail to graduate from Mishawaka High school perform below grade level in mathematics and, in many cases, have poor attendance and disciplinary records. This grant will put in place three interrelated initiatives: an extended summer school for math, a self-paced flexible semester math course and an at-risk class to recover credits quickly. The approach is based on a pilot conducted by the school in 2009, in which student content knowledge in math, measured by the ALEKS Math Assessment, increased from 10% to 60% in six weeks.

Richmond Community Schools: While Richmond's dropout rate has decreased from 40% to 33.1% with a variety of programs like Peer Helpers, Work One, ICE business, Service Learning, and Alternative Education, focused measures are needed to make further progress. As a result of the grant, Richmond will implement the research-based Check and Connect program that is highlighted on ED's What Works Clearinghouse. The Check and Connect program coordinator works with students and families over an extended period of time; regularly checks on the educational progress of the students; and intervenes or connects in a timely manner to maintain students' connection to school and learning.

F-9: GRADUATION PERFORMANCE REWARD

Graduation Performance Rewards will be distributed based on the percentage increase in 2009-10 graduation rates over 2008-09 rates. IDOE set aside a fund of $220,000 to be divided between the top ten schools with total enrollment of at least 300 students and the top two schools with total enrollment of less than 300 students. Each winning school with total enrollment of at least 300 students will receive $20,000 to be distributed among personnel in the manner designated by the superintendent and building principal. The two smaller schools will each receive a $10,000 award. The principal at all schools may receive no more than $5,000 of the award amount a school receives.

F-10: COLLEGE READINESS INITIATIVE

In collaboration with the Indiana Department of Education (IDOE), Central Indiana Community Foundation (CICF) and Legacy Foundation will launch a Performance Incentive Initiative in Marion and Lake County aimed at closing the achievement gap and increasing the number and percentage of Hoosier students that graduate high school, enroll and succeed in college. CICF and Legacy Foundation will leverage private charitable dollars in addition to public support to incent higher performance by local school corporations in the following areas: (1) passing State standardized test, (2) enrolling and succeeding in college preparatory coursework, (3) participating in Advance Placement (AP) course and completing AP qualifying exams, and (4) taking college entrance exams.

The goal of the Performance Incentive Initiative is to increase the number and percentage of youth enrolled in "turnaround schools" that graduate in four (4) years and enroll in a post-secondary opportunity immediately following senior year of high school. School corporations will be financially rewarded if performance is increases over and beyond a three year historical baseline. CICF and Legacy Foundation have committed to leveraging current and future charitable resources to sustain incentive program into the future. Funding from a successful Race to the Top grant application will seed the incentive program in two counties that comprise of 80% of the State's "turnaround" schools for the first five years.

G-1: INDIANA'S STEM STRATEGIC PLAN, INCLUDING MORE INFORMATION ABOUT MATERIALS SUPPORT

I-STEM and IDOE have created a strategic plan for reforming K-12 STEM education in Indiana which incorporates the expertise of industry experts, non-profit organizations, universities, and STEM-focused community partners. It centers on five areas required for systemic STEM education reform: curriculum, professional development, support and advocacy, assessment, and materials support.

Curriculum –Indiana's Mathematics and Science Partnership (MSP) projects and other pilot studies in Indiana have demonstrated that teacher use of student-centered and research-based curricular materials has a positive impact on student understanding of STEM content, prepares more students for advanced study and careers in STEM disciplines, and addresses the needs of underrepresented groups, which includes reducing achievement gaps. Indiana will expand an existing initiative that provides criteria to help schools select and adopt research-based curricular materials that will be aligned with the Common Core Standards across grade levels to support student-centered STEM instruction. Practicing and pre-service teachers will have access to these curricular materials and professional development as they learn how to structure content and instruction to better address the needs of all students and thereby reduce achievement gaps. Indiana will use Race to the Top funds in order to further develop this initiative so that it is rich and deep enough to offer to schools across the state, and participating LEAs will be welcome to utilize their funding to participate in it. $50,000 will easily cover the cost of establishing this program so that it can properly serve schools across the state.

Professional Development: As outlined in section (D)(5) of this application, Indiana will support I-STEM's professional development for teachers who are teaching the state's bottom 5% of schools.

Support and Advocacy: Broad community support is vital to the success of STEM education programs. Knowledgeable advocates must work to align educational policies with research-based curricular materials, instruction, and assessment. With assistance from I-STEM, Indiana held a first-ever statewide Math Summit in June 2009 to bring together national experts in math instruction to help Hoosier educators and the IDOE establish a path forward with stronger math

instruction and student achievement. Following the Math Summit, IDOE and I-STEM worked with national and state experts in multiple strategic planning sessions to articulate this path. Additionally, IDOE will host a Science Summit on February 3, 2009 that will advocate for a statewide focus on high quality, lab-based, inquiry-centered science teaching.

IDOE and I-STEM have also hosted two "Building Awareness" symposia for science education, taking place in a different Hoosier community each year. These symposia are located in communities facing the greatest educational deficiencies. The target audience for the symposia includes K-12 school educators, business stakeholders, community leaders, and higher education faculty and staff. These symposia aim to give participants a better understanding of what good STEM education looks like, the data supporting it, and how they can help bring it to their local schools.

In these different efforts, Indiana continues to grow informal STEM learning experiences with organizations like Science Central (a STEM-focused museum in Fort Wayne, Indiana) and the Indianapolis Children's Museum (the world's largest children's museum, which has a strong focus on STEM activities for students and provides STEM professional development for teachers). Indiana will also continue to support STEM academic competitions like FIRST Robotics, Super Mileage Challenge, and MATHCOUNTS. IDOE also provides authentic information to parents and students about STEM study needed for high-quality careers through online planners like Learn More Indiana.

Assessment: Ongoing monitoring of teachers' content knowledge for teaching and evaluation of instructional practice is necessary to move teachers from ineffective to effective to highly effective. The Indiana plan will continue to develop and merge existing data systems that will provide immediate feedback and track student progress. See (D)(5) for information on tracking teacher professional development results.

Materials Support: A materials support system needs to be in place to ensure that teachers have access to the materials and facilities needed to facilitate hands-on, research-based STEM instruction. Indiana will partner with existing materials support programs like those supported by the state's regional Educational Service Centers and Science Express (a program through the College of Science at Purdue University that delivers research grade instruments to middle and

high schools throughout central Indiana) with corporate, university and not-for-profit partners to expand the materials support infrastructure across the state. Race to the Top funding in the amount of $500,000 will be utilized in order to fully develop the infrastructure for the materials support system.

IDOE and I-STEM are working with Eli Lilly and Company and Lilly's six sigma experts on a plan to make the purchasing, delivery, and management of the materials and equipment for STEM education more cost and time-effective. The results of this effort will help inform how the materials support system is set up. Once the system is established, LEAs will be able to pay for the materials through traditional student textbook rental fees.